Study on Green Interior Design under Home Care Mode

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Abstract: The elderly care problem in China is becoming more and more serious. This paper studies the integration of green interior design concept under the homebased elderly care model, takes the actual psychological and physiological needs of the elderly as the starting point, and takes green design concept as the technical support. It makes improvements in lighting, air quality and noise interference, and adopts green environmental protection materials. By using natural light to provide lighting and vegetation to purify air quality and other measures, a localized interior space design scheme was proposed and a feasibility study was conducted to improve the actual experience of the elderly under the homebased care model, and at the same time to provide theoretical support and coping strategies for subsequent research.

Keywords: Green Design Concept; Interior Design; Aging; Home Care Mode; Elderly People

1. Introduction

With the increasing proportion of the elderly in Chinese society, the pension problem is becoming more and more prominent. In order to avoid the future pension problems affecting the national social satisfaction, universities and research institutions actively respond to the home-based pension model in combination with the physical and mental health of the elderly, aiming to solve the pension problems of the elderly through the combination of pension and family, living away from the premise of staying away from the original living comfort zone [1-3]. Green space design is means by science and technology, which can build a bridge for the communication between human and nature. The green design with the breath of life will make the elderly feel the rhythm of life and the harmony between heart

and nature. Environmental friendly and sustainable materials and technologies are adopted in green design to reduce the impact on the environment, and maximize the health, comfort and safety of the living and working environment, while saving energy and resource use, in order to improve the comfort and convenience of the indoor environment, to meet the users' pursuit of high quality life [4-6]. Green interior design has been widely used in the field of architecture, The Chinese government attaches great importance to the development of green buildings, A series of policies and standards have been introduced, For example, the Green Building Evaluation Standard, the Green Building Action Plan, Encourage and support the promotion and application of green buildings, Considering the principles of environmental protection, resource conservation and ecological balance in the design process, Designed to reduce the negative impact on the environment. Improve the efficiency of resource utilization, Design concepts and methods to promote the harmonious coexistence between man and nature, Reduce the environmental pollution of buildings, to improve indoor air quality, comfort and health, For users to create a more excellent residential, public places and office environment [7-9].

Tailored indoor environment is more in line with the actual needs of home care groups, bringing users a more convenient, comfortable and safe life experience. It is hoped that the public will provide research on improving the practical ability of indoor space for the elderly, gradually mature through localized exploration and practice, and gradually improve the practical problems brought by aging, energy crisis and environmental pollution, so as to promote the lasting development of pension undertakings and to help the continuous progress of the society [10-12].

2. Characteristics of Green Interior Design under the Home Care Mode

In the in-depth practice of home care model, it is not difficult to find significant differences between the actual needs of the elderly and the target group of traditional interior design. As the elderly get older, the elderly often have a deep attachment and dependence to the environment they once lived in. This emotion is not simply a nostalgia for the old things, but a reflection of a psychological need for stability, familiarity and safety. Therefore, their requirements for the living environment are not only more delicate, but also unique.

With the growth of age, the physical function of the elderly is gradually degraded, resulting in them also increasingly strict standards for indoor air quality and material selection. Elderly people have a strong vigilance and aversion to harmful gases and materials, because it is directly related to their physical health and quality of life. In order to meet this demand, the concept of green design emerged at the historic moment, with sustainable development as the core, and is committed to realizing the long-term protection and maintenance of the future environment through the effective use of resources and the reduction of environmental burden. It adheres to the principle of people-oriented, and pays special attention to the physical health of the elderly residents. In the context of home care, green design is not only a design concept, but also a life attitude, a kind of care for the health and quality of life of the elderly.

The essence of home care is to make fine improvement and promotion on the basis of retaining the original living environment. This includes the comprehensive consideration of the respect such as spatial layout, furniture choice, color collocation. Older people usually miss the old days, and they hope to enjoy a comfortable and healthy more living environment while maintaining their unique emotional sustenance and memories. Therefore, in the practice of green design, we need to fully consider the psychological needs of the elderly. In the practice of green design, there are many specific environmental protection measures and technologies. When selecting building materials, renewable resources and sustainable materials should be preferred to reduce over-exploitation and consumption of natural resources; in terms of energy utilization, renewable energy such as solar energy and wind energy should be fully utilized to reduce dependence on fossil energy; in terms of waste disposal, recycling and reuse system should be implemented to reduce the amount of waste produced.

Green design also focuses on optimizing air quality. Through the introduction of fresh air system, the installation of air purifier and other measures, can effectively remove the indoor air in the harmful substances. It is not only helpful to improve the quality of life of the elderly, but also in line with the urgent needs of environmental protection and resource conservation. Green design also needs to consider the physiological characteristics of the elderly in practical operation. For example, in the lighting design, the visual condition of the elderly should be fully considered, and soft and uniform lighting should be adopted. In the color collocation, warm and soft colors should be chosen to avoid too dazzling or cold colors. These details can enable the elderly to feel more warmth and care at home. With the increasing environmental awareness today, the concept of green design has been widely applied and promoted in all walks of life. It not only changes our way of life, but also makes green design a necessary choice of home care mode space design. It meets the actual needs and psychological needs of the elderly, but also can create a healthy, comfortable and safe living environment for them.

3. The Necessity of the Application of the Green Interior Design Concept in the Home Care Mode

Due to the decline of physical function, the elderly are able to adapt to the environment, and are more sensitive to environmental factors such as indoor air quality, temperature and humidity. The traditional living concept only for the needs of "shelter" can not meet the needs of the elderly, and the growing material and cultural needs are also applicable to the elderly pension life, so the green interior design considerations will be combined with the actual situation of multi-dimensional innovation.

Green interior design, by using environmentally friendly materials and optimizing indoor ventilation and lighting, can significantly improve indoor air quality, reduce the emission of harmful substances, and provide a healthy living environment for the elderly.

Elderly people stay at home for a long time and have a greater demand for energy. Green interior design through energy-saving lamps, energy-saving appliances, efficient home appliances, intelligent temperature control system, etc., can effectively reduce energy consumption, reduce household expenses, and reduce the pressure on the environment.

In the green design to optimize the living environment of the elderly, noise control is particularly critical. It has a direct impact on the health and comfort of the elderly, and the application of sound insulation materials and technologies plays a crucial role in the field of noise control.

Promoting mental health: Green interior design, by introducing natural elements (such as indoor plants, natural light, etc.), can provide the elderly with opportunities to get close to nature, help to relieve pressure, improve mood, and promote mental health.

Green interior design is in line with the concept of sustainable development, by reducing resource consumption and environmental pollution, leaving a livable environment for future generations, reflecting a sense of responsibility for society and the environment.

In general, the green design concept in the application of building interior design, can make the building more scientific and sustainable, more can reflect the breath of contemporary society and appearance, can not only to provide a comfortable living environment for the elderly, also can promote the sustainable development of society, conform to the requirements of the national strategy of green development strategy. Therefore, it is an important way to integrate the concept of green interior design into the home care mode to realize the happy life of the elderly.

4. Green Interior Design Improves the Quality of Life and Safety of the Elderly

Green interior design has significant advantages over traditional designs, especially in improving quality of life and safety. The expectation of the elderly group for the living environment has not only stayed in the aesthetic and practical level, but also begun to pursue the quality and safety of life. In this respect, the green interior design, with its unique perspective and forward-looking design concept, presents a brand-new living space for us. In particular, in lighting, air quality and noise interference, green interior design shows remarkable advantages.

The layout of lighting design is related to the quality of life of the elderly, and the comfort of the living environment following the principles of green design can be significantly improved. The full use of natural light sources is the core of the green design. The green interior design cleverly introduces natural light, filling the interior space with soft and bright light through proper layout of windows, selection of transparent materials and clever setting of shading facilities. This design not only makes full use of natural resources, reduces power consumption, but also allows residents to enjoy the beauty of life in a sunny environment. In order to meet the physical and psychological needs of the elderly, make full use of natural light sources. Secondly, the use of LED lights and other energy-saving equipment is conducive to reducing energy consumption. To cater to the needs of the elderly population in different environments. And the introduction of natural light also helps to regulate the body's biological clock, promote healthy work and rest, and further improve the quality of life of the elderly.

The elderly are very sensitive to indoor air quality, and low volatile organic compound materials are indispensable elements in indoor design. Can reduce the concentration of indoor pollutants and improve air quality. Avoid the use of toxic substances, such as formaldehydecontaining decoration materials and home products, can reduce the probability of the elderly exposure to harmful substances. Green interior design regards air quality as a key element, and creates a fresh and natural breathing environment for the elderly through the selection of environmentally friendly building materials, placing green plants and allocating air purification equipment. Environmental friendly building materials reduce the release of harmful substances, green plants can absorb harmful substances in the air and release oxygen, and air purification equipment can effectively filter particles and harmful gases in the air. These carefully designed elements work together to ensure the health and safety of the occupants.

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Noise control is the most critical link. Has a direct impact on the health and comfort of the elderly. The application of sound insulation materials and technologies plays a crucial role in the field of noise control. Thanks to the appropriate sound insulation measures, the transmission of indoor noise can be effectively suppressed, and then reduce the chance of the elderly being affected by noise intrusion. The walls, ceilings and floors that consider the use of sound insulation materials combined with environmental protection materials can also protect the privacy of the elderly, and optimize the overall green design of the home care environment. Green interior design through clever sound insulation materials and sound insulation design, effectively isolated the interference of external noise. The use of sound insulation materials reduces the transmission of noise, while sound insulation design further reduces the generation and transmission of indoor noise. This design not only improves the comfort of the living environment, but also creates a quiet and harmonious living atmosphere for the elderly, so that the residents can stay away from the noise trouble and enjoy a quiet life

5. Conclusion

The application of green interior design in the home care model provides a safer, healthier and more comfortable indoor space for the elderly. Adhering the concept of two-carbon normal promotes sustainable development, and helps to maintain the earth's environment. By increasing the use of natural light, improving indoor air quality, reduce the noise level and a series of means, to create an indoor environment beneficial to the physical and mental health of the elderly. So that the elderly can maintain personalized at home while providing life convenience, improve the quality of life. The application of green interior design in geriatric care facilities is of great value and significance. With the continuous development and application of emerging technologies and low-cost environmental protection materials, green interior design will bring more innovations and breakthroughs to the elderly care industry in the future, and

create a better living environment for the elderly.

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