

Study of Nursing Home Interior Design in Northeast China

—A Case Study of Nursing Home in Changchun

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Abstract

Over the past few years, the design and construction of the pension space has been gradually enriched. The rational depth of thinking in the humanized and emotional design of the nursing home is revealed. The interior space under the influence of regional culture is also the associated element of humanized and emotional design, which is worth the in-depth discussion of the professional staff. The construction and developed areas in Northeast China compared to nursing homes are still relatively backward, how to implement the people-oriented design concept, how to promote the northeast area nursing home construction and interior design quality, these problems are specific, but also the reality, managers, designers need to take seriously.

Keywords: *The Northeast Area; The Old Industrial Base; The Nursing Home; The Interior Design*

Since China entered the aging population in 1999, to 2015, the elderly population in China has reached 222 million. The proportion of the elderly population is about 16.1% of the total population. 2013 to 2023 will be the fastest growing period of the elderly population in China. The aging of the population is also in the direction of the family structure in the direction of "miniaturization, empty nest, hollow," the direction of development and change, at the same time go hand in hand. As a result, it also shows an interesting feature of the aging of the population in China, that is, the state of "not getting rich first, not getting old first". The rate of empty nesters in urban and rural areas is amazing. The psychological needs of the elderly even exceed the physiological needs. The elderly society has quietly entered our lives, and has aroused great concern from the government and society. With the "9073" pension pattern construction and "12th Five-Year" during the government's pension policy has been implemented, the state attaches great importance to and actively support the government, the social pension began to form the context, in science and technology in the field of pension, related industrial chain construction, especially the gradually changing people's concept of pension, the pension industry is undoubtedly formed the promotion of the development of endowment, improve quality, and promote a diversified mode of old-age pension, brought a new thrust, let more old people get more high-quality care services, has played a positive and constructive role. But the development of the whole pension field is still at the initial stage of development. Its theoretical research is relatively backward, and its practice is not deep enough, so that the construction of pension projects, type size, environmental grade, functional requirements, facilities and equipment are uneven. Even if it is an institution for the aged, most of them are in a state of basic living conditions. And the home space for the aged is not to talk about the pertinence of the home environment.

1 REGIONAL SITUATION

Whether public pension institutions or private pension institutions across the country, changes on elderly living space form is not large, the indoor space environment design, function, facilities and equipment, furniture, intelligent management, etc., in the economically developed areas of the construction of nursing homes scale, grade, quality is very high, the Northeast relative to the area they have a lot of room for improvement. As China's old industrial base,

in 90s of last century, due to institutional and structural contradictions become increasingly obvious, aging equipment and technology enterprises in the old industrial base and competitiveness significantly decreased, resource-based city economic transformation and technology updates slow, the pace of economic development inevitably on the urban and rural social security system and the construction of the local culture block.

As the cold area of China, the northeast area has its own characteristics and limitations. In terms of architecture, factors such as depth, sunshine demand, construction cost and other factors have highlighted the influence of Regionalism on the construction of pension space and the design of the environment. While the construction of nursing homes in the area of small space, and space layout is simple, equipment is relatively old, not many new projects, attention degree is not enough and so on, especially the concept of ingrained "and" the northeast, the elderly and children are not willing to go to a nursing home, the scale of construction and development progress which is invisible the northern limit of nursing homes.

Regional characteristics of the Northeast winter cold climate with cold weather, half the time in a year that older people can not long time in outdoor activities, especially in a world of ice and snow up to a few months, the time for outdoor activities, even range conditions are restricted and affected, and the indoor activity space construction is very important.

Changchun is the capital city of Jilin Province, and it is located in the Northeast geographic center. It is known as the car city, the film city, the optical capital, the agricultural capital and the University City. A series of problems concerning the construction of nursing homes should be represented in the northeast. According to the statistics of the province's census in 2010, there are 27 million 462 thousand resident population in Jilin province. Changchun has 7 million 677 thousand people, 65 of whom are over 65 years old and over 1 million 67 thousand, accounting for 13.9% of the total population of Changchun. The aging ratio of large Changchun prompted the development of pension service industry vigorously, at this stage, there are various types of Changchun 462 pension institutions, including public welfare and other pension institutions 6, rural welfare service center 98, 358 private pension institutions within the city, about 246. Among them, the types of old-age homes can be divided into three categories, one is the public welfare home. The two category is the daycare center, welfare center, the three is private nursing homes.

According to government data, by the end of 2011, the number of elderly people over the age of 60 has reached 1 million 139 thousand and 953, while the total number of elderly people who actually live in all kinds of pension institutions is only over 10000, and the proportion of the elderly population is less than 1%. On the one hand, there are less than 30 beds per thousand old people in Changchun. On the other hand, the occupancy rate of the old-age facilities is less than 10000 people, and the two aspects of the contradiction are more prominent. There are two main reasons for this phenomenon, one is influenced by China's traditional ideas, most elderly people still believe that family is the most suitable for their own pension mode, "and ingrained", it is difficult to change the short time; on the other hand, is now Changchun most pension institutions for cost control is located in the suburbs, urban and rural areas away from the city center with the Department, the traffic is not very convenient, size, function and grade of more conventional, coupled with the professional nursing staff is less, the external form of the flow of nursing staff is larger or part-time, number of configurations are not standard, it is difficult to satisfactory quality of service and further expand the development of these problems largely hindered the Changchun city pension institutions on the scale of the. Besides, the consumption level of the majority of the local residents is generally low, and the cost of the good pension institutions is relatively high, which is undoubtedly a great burden for the vast number of consumers.

Overall, at present Changchun city endowment construction is still in the stage of rapid development, the service of nursing homes are relatively simple, in addition to meet the most basic living services, similar to the spirit of the service cannot meet, this is Changchun municipal government promulgated the "people like Changchun non-profit pension service governmental support the detailed rules for the implementation of" and "Changchun Municipal People's Government on accelerating the development of pension services implementation opinions" and other government documents, hoping to improve the Changchun city pension service quality through the development of industry standards, but also through the "governmental support" and "privatization" approach to the development of pension business, to actively improve the government functions of supervisors, development specification for

Changchun local pension market. Reduce the gap between the civilian run nursing home and the high-end charge nursing home in the service quality, and improve the overall quality of service.

2 THE SURVEY RESULTS OF THE SATISFACTION AND DEMAND OF SPACE ENVIRONMENT

The author for nursing home Changchun conducted an investigation, selection of ChaoYang District City, Changchun KuanCheng district and the South Gate area 6 of a certain size, reputation and influence in the industry of the nursing home, put through questionnaires and face-to-face interview (on the total 150 questionnaires, effective recovery of 140 copies, 10 copies get failure) the city nursing home indoor environment design of the first hand materials. Through the questionnaire survey to analyze the status of the overall space environment in Changchun, so as to draw a certain representative and regular conclusions. The contents of the survey include the satisfaction of the indoor environment, the satisfaction of each functional area, the satisfaction of spatial details and the space demand of the elderly. Finally, the data is arranged through the SPSS 23.0 version of the statistical software.

The survey data were detected by single sample T test. There were 5 important satisfaction scales in the questionnaire, which were defined as 5 points is very satisfactory, 4 points is more satisfactory, 3 points is satisfaction, 2 points is dissatisfied, 1 points is very dissatisfied. The degree of demand is an analogy. According to the comprehensive data analytic weights corresponding to the weight of the space environment, into the SPSS 23.0 version of the single sample T test, the data in the corresponding Sig (two tailed) value data is less than 0.05, the corresponding detection mechanism Sig<0.05 samples have a very meaningful significance, Sig<0.01 sample and Sig<0.001 sample can be very meaningful). The 95% level of confidence, value and detected value (3) have significant difference, sample hypothesis.

In the survey date, men accounted for 18.66% of the investigators, and women accounted for 81.37% of the investigators. In terms of age, the number of people under 60 years old is 17 people, 60~70 years of age is 17 people, 70~80 years of age 66 people, and 50 above 80 years old. The largest group is 70~80 years old, and the trend of population aging is outstanding. In terms of living space, the number of elderly living alone is 22.67%, the elderly in double rooms account for 33.33%, the number of people living in 44% places on three or more people, and the area per capita is very limited. Among them, there were 134 people living in a nursing home alone, and 16 of the two married couples. The respondents of the satisfaction survey of the nursing home included the old people of all classes, with a high degree of distribution, the value of research, and the representative of the sample.

2.1 Satisfaction Survey

In the function of space satisfaction, to the elderly on the interior space of living satisfaction as an example (Table 1), corresponding to Sig (two tailed) value is less than 0.05, so in the 0.05 level, the average satisfaction of living space and with the test value (3) there are significant differences, the difference value is + 0.22, final the corresponding get satisfaction is 3.22, relatively satisfied but did not reach more satisfactory. By analogy, the difference between the mean value and the average value of the active space is +0.22, the final satisfaction score is 3.22 points, so the satisfaction degree is reached. Compared with the privacy space satisfaction, the Sig is less than 0.05 level, on the 0.05 level and the difference is -0.15, so the final satisfaction is 2.85, lower than the test value (3), indicating that the elderly are not satisfied with the existing privacy space. The average degree of satisfaction of the relative toilet space was (3), the difference was +0.39, so final satisfaction of the elderly was 3.39, and the satisfaction of the elderly was very high. The average difference in the satisfaction of dining space was +0.14, on the 0.007 level, the final satisfaction was 3.14, and the degree of satisfaction was relatively satisfactory. The average difference of the overall environment satisfaction of the home space of the nursing home was +0.37, the final satisfaction was 3.37, so the elderly were very satisfied with the overall environment of the nursing home. The overall data are high and low, with satisfaction and disappointment, of which the lowest degree of satisfaction is the space of privacy, and it is also a space area where the focus needs to be improved. At the same time, the seniors have not reduced the identification of the surrounding space as they grow older, instead, they have their own evaluation criteria.

TABLE 1 SPATIAL ENVIRONMENT SATISFACTION

Determining weights by analytic hierarchy process		T test (test value =3)		
	Satisfaction degree	proportion	Reliability level (Sig) (bilateral)	mean value difference
Living space	Lighting	0.3	0.000	0.22
	Furnishings	0.2		
	Use area	0.3		
	Functional	0.2		
Active space	Safety	0.2	0.000	0.22
	Diversity	0.3		
	Atmosphere	0.2		
	Use area	0.3		
Privacy space	Private	0.5	0.016	-0.15
	Use area	0.5		
Toilet space	Use of the environment	0.2	0.000	0.39
	Lighting	0.3		
	Use area	0.3		
	Ventilation	0.2		
Dining room	Use of the environment	0.3	0.007	0.14
	Ventilation	0.2		
	Lighting	0.3		
	Use area	0.2		
Whole environment			0.000	0.37

2.2 Demand Survey

In the old people's demand for functional space (Table 2). People for indoor living space needs when Sig value is less than 0.05 level, the mean difference was -0.16, with the test value (3) there are significant differences, the final data demand is 2.84, less than the average value, that old people basically satisfied with the present Changchun city homes for the elderly living space, not too much demand part. At the same time the toilet space demand degree mean difference was -0.6, with the detection value of final value of 2.4, indicating the toilet space and living space, have been recognized by the old people, at this stage does not need to transform and upgrade, more satisfaction between the two old toilet space function.

But in the other three space: the demand of numerical activity space, dining space and private space, the mean difference is positive, +0.2, +0.54 +0.11, the last numerical data, that the old people is basically satisfied with the first two spaces, with the intention of space transformation but not urgent. The indoor privacy space has a large deviation on the mean value difference, and the data score is close to 4 points, which is very demanding. Therefore, the elderly have the highest demand for indoor privacy transformation, and they are eager to satisfy their needs. Therefore, the weight of the elderly for indoor space is in the order of privacy > dining space > activity space > living space > toilet space.

In general, the existing problems in the internal space of Changchun endowment hospital are mainly concentrated on the supply and demand of the elderly to the private space of indoor privacy. Most old people live in one bedroom with two or more than three, and only a small number of old people live independently. Therefore, it is very dissatisfied with the living space, living space, sports, privacy, communication and rehabilitation. It is urgent to improve the requirement. This research about nursing homes is the old industrial base in Northeast China based on the reality, because the economy is relatively backward, reflecting the social security pension business behind, family and personal economic conditions, construction, management and service consciousness is not high, the education degree is low, the concept of strong social endowment situation for many years the formation of the "Children serve for the aged", the survey data show some realistic problems.

TABLE 2 DEMAND FOR SPACE ENVIRONMENT

Determining weights by analytic hierarchy process		T test (test value =3)		
	Demand degree	proportion	Reliability level (Sig) (bilateral)	mean value difference
Living space	Lighting	0.3	0.000	-0.16
	Furnishings	0.3		
	Use area	0.3		
	Intelligent equipment	0.1		
Active space	Functional	0.4	0.023	0.11
	Natural landscape	0.1		
	Atmosphere	0.2		
	Use area	0.3		
Privacy space	Private	0.6	0.000	0.54
	Use area	0.4		
Toilet space	Barrier-free structures	0.2	0.000	-0.6
	Use of the environment	0.2		
	Lighting	0.2		
	Use area	0.3		
	Ventilation	0.1		
Dining room	Use of the environment	0.3	0.000	0.2
	Atmosphere	0.2		
	Use area	0.4		

3 DESIGN AND SUGGESTION

In general, different spatial layout determines the functional properties of space. Since it is designed for the elderly to provide for the aged, we cannot forget the users and the nature of the design, so that we can design "people oriented" and design the core with the elderly. In design, we can't imagine the needs of others with our needs, but think about their needs after a thorough investigation of the users. To achieve the goal of space and enjoy the old, the unity of "man" and "Ben". According to the old people's architectural design standard and the barrier free design theory, the construction of the old people is strictly based on the theory of architectural design and barrier free design. Practical use of reasonable design methods and means, innovative solutions to the problems of space.

3.1 Consciousness Problem

Design is the solution to the problem. According to the interior space design of Changchun endowment hospital, some basic problems are found through investigation and analysis. Such as nursing homes indoor living space, the per capita area function is not strong enough, the rationality of the layout, facilities only reached the basic use, storage space, personal space, application of a single color, emotional weakening, design quality is less, which is reflected in the current mainstream nursing homes in some practical problems generally existed. On the one hand from the old nursing home the reality of the construction of new construction, expansion and reconstruction requires the construction conditions, a lot of money, time and manpower, influence on the resident population is large, faced with certain difficulties, in the view of management, as long as not to affect the safety, the key will work on the business and the management, improvement and lack of promotion space is basically on the opportunity and gradually to achieve, so this kind of pension problems to be changed is more common. On the one hand, the economic benefits are low, and the support force of construction funds is insufficient. Even if we realize the shortcomings of such a person, we don't want to invest too much energy in space to improve it. Of course, there is a strong awareness of the officer, "face" awareness, shot forehead work, idea and service consciousness of problems affecting the space environment nursing home construction quality, and even departments and the owners do not think some norms and regulations, and realize the design quality of the importance of how much. As long as the indoor people stay, there are benefits available, everything can be simple.

3.2 Normative Principles

Whether new or old buildings are rebuilt, standard satisfaction is the first. The problems in reality "norms" brought to the rebuilding of old buildings is the most common and prominent, it is from the building foundation conditions, increase the function and transformation of the limitations, in line with the fire code implementation and other issues have become the core problem into a nursing home. Security is the guarantee, and security is the development. It is not possible to increase and reduce the components of the original building, and can not increase the load to bring safety hazards to the building. The elements such as depth, passageway, function zoning, environmental protection material, hydropower and so on, only satisfy the design standard of the nursing home, so as to realize the rationality, convenience, safety and comfort of the space, and realize the maximization of the design value.

3.3 Convenience and Safety of Life

The specific application of the barrier free design should be implemented, and the functions should be detailed. Safety facilities and related equipment are necessary in the nursing home space. Internet and intelligent technology should be strengthened, so as to realize the safety and convenience of the elderly and make life convenient for them. Barrier free design and the perfection of facilities and facilities directly affect the daily life of physically handicapped and disabled people, and can even change their lifestyle and behavior.

The space is reasonable, the area is convenience, the function is perfect, which is based on the optimization of the whole space. The optimization of the function also includes the optimization of the structure and the optimization of the idea. The goal is to make the design maximize the value of the design under the limited conditions. While also thinking is based on current application of science and technology, make the environment, make nursing, make communication, let rehabilitation, to achieve more convenience for information, timely and effective to have no interaction, can reduce labor intensity, improve management efficiency, in line with the current and keep pace with the times.

3.4 Humanized and Emotional Design

Control of ergonomics in the setting of furniture design and space scale should be targeted to design their own room house is for the convenience of the elderly home in order to increase the cognition, in front of the wheelchair and the medical bed import; Rest Area set convenient neighborhood communication; each other to build a foundation for Internet video contact with family; communication; decorative furnishings have to choose style is to arouse the elderly family memories and historical memories; rehabilitation facilities are arranged for the needs of the elderly physical rehabilitation, educational, health and physical; the old furniture is to retain and improve the emotional needs of the elderly, eventful years, experienced the vicissitudes of life, are the best witness of the elderly life experience and entrepreneurial time. The design of physiological and psychological factors is necessary, it can be used to strengthen their feelings, mutual interaction, especially the aspects to promote the necessary supporting conditions play in elderly individuals, to promote the healthy and happy China, will be one of the important measures. The healthy psychological state also helps the old people to adjust themselves constantly in life and improve the quality of life. Humanized and emotional factors are everywhere in the nursing home space, which requires designers' vision and judgement, thinking and design to solve humanized and emotional construction problems.

3.5 Environment Atmosphere Construction

The core of the new and renovation of the nursing home is to meet the needs of the old and the old. The elderly live here. They regard it as their new home. The theme of the family is the core, the value and the meaning for the elderly to live here. The interior design is drawn from the subject, whether large or small space environment, high grade or low, living is more or less, or even take care of themselves and non self-care for the elderly, the space environment is always the first one, and then to explore the respect only on this basis, to the pursuit of people the value of life, to enjoy the ultimate goal of the old.

3.6 Regional Design

The elderly in nursing homes indoor life, life style and living habits reflect the regional and folk features, interior

design and environmental design, the relationship between man and man, man in space and objects and things and things affect the various factors of interior design, but the space form caused by the regional construction characteristics and context and the resulting emotional memory, is undoubtedly the elements of environment and the formation of personality characteristics, but also due to the design of human design, it has its unique cultural value that nursing home interior design.

At present, the domestic new construction, expansion and reconstruction of the nursing homes have been started, the pension industry chain has been formed, social context began to air plant. Over the past few years, the design and construction of the pension space has been gradually enriched. The rational depth of thinking in the humanized and emotional design of the nursing home is revealed. The interior space under the influence of regional culture is also the associated element of humanized and emotional design, which is worth the in-depth discussion of the professional staff. The construction and developed areas in Northeast China compared to nursing homes are still relatively backward, how to implement the people-oriented design concept, how to promote the northeast area nursing home construction and interior design quality, these problems are specific, but also the reality, managers, designers need to take seriously.

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