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The Perception of the Elderly Concerning Life Quality of Nursing Homes: A Case Study of Yangpu District in Shanghai, China

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Abstract
Taking the elderly people in Yangpu District, Shanghai as the research objects, this paper gains understanding of the perception of the elderly people towards the life quality of nursing homes, and further analyzes the structure of the dimensions of life quality perception, therefore supply suggestions for the space design and service management of nursing homes. The research findings include: 1) the positive perception of elderly about the life quality of nursing homes in Shanghai mainly includes dedicated caregiver, decreasing family burden of children, and without loneliness. The negative perception mainly refers to the high economic pressures. 2) The overall perception of elderly people about the life quality of nursing homes could be divided into 5 dimensions, namely sense of institutional setting, care service, family relationship, comfort and economic. In the above-mentioned above, sense of institutional setting has the most prominent impacts, exactly prior to the care service. From the results, the research suggest that: 1) Improving the living service quality in nursing homes and constructing nursing care insurance system. 2) Formatting daily life atmosphere in the nursing homes and avoiding the sense of institutional setting.

Keywords: institutional care, life quality, subjective perception, dimension structures, sense of institutional setting

1. Introduction

Under the great influence of the typical “4-2-1” family structure (four grand-parents, two parents, and one child) resulted from the national “one-child policy” and the inter-generation living space variation due to the rapid urbanization process, the Chinese families’ capacity to support the elderly has been weakened. Nursing homes, as an important means to complement the healthy development of an aging society, has become an important component of the social pension system. Nursing homes can not only offer professional and systematic care through trained staff, the large-scale care service also make the utilization of social pension resource more efficient. Therefore building more nursing homes is imperative and urgent. However, the occupancy rate of the existing nursing home facilities is low, and, as a result, many nursing homes cannot

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even sustain their service operation. One of the causes of this contradiction between the growing market in theory and the shrinking demand in reality is the perception of the elderly concerning the environmental quality of nursing homes, which subsequently influences their willingness to live in a nursing home.

Through consulting literature and field investigation, this paper aims to investigate the perception and its structure of the elderly concerning life quality of nursing homes, and promote the development of nursing homes in Shanghai, China.

2. Literature Review

The traditional pension ethics in oriental countries has great discrepancy from that in western countries, and elderly people have differentiated service requirements on the nursing homes even in different oriental countries. Thus accordingly, in order to solve the nursing home development issues in different countries and cities, it is urgent to analyze the characteristics of the specific regions.

As proved by the studies of many Chinese scholars, a number of factors influence the selection of the elderly people for nursing homes, including health condition, family condition, residential environment, interpersonal communication, and socio-economic attributes et al. For instance, Hsu (2003) considers that facility selection factors include health condition, lack of human labor at home, lack of self-care ability, economic cause, lack of accessibility measures at home, isolate social contact, unfavorable relationship with the mate or children, need new residential environment, need of companion, in search of leisure times, unwillingness of being a burden on the family. Huang and Chang (2006) finds out that the factors which might influence elderly people's selection of nursing homes contain family education degree, disability degree of elderly people, economic power, traditional lifestyle, family relationship, family care affordability and information retrieval ability. Lv (2005) holds that elderly people usually choose nursing homes out of the following reasons, including the decrease family burden of children, avoidance of the conflicts with children caused by generation gap, decrease of family labor pressures, eradication of solitude, and the professional health care services. Throughout the qualitative studies, Xi (2010) concludes that the elderly people usually choose institutional care out of disease, death of mate, lack of self-care ability, relief of family burden, nursery care, and others. Yen (2011) finds out that the accommodation decision and life satisfaction degree of nursing homes are related to the following 8 factors, including the unwillingness of disturbing the daily life of children, lack of care ability of children, getting rid of the intervention in family life of children, economic capacity, relatively conscientious care in institutions, relative recommendation, lack of self-care ability, isolation of social contact.

Above studies have made systematic explorations on the selection of the nursing homes of the elderly people, but few studies concentrate on the perception of the life quality of nursing homes and do not have direct guidance on the spatial design and service optimization of nursing homes in China. As a consequence, taking the elderly people in Yangpu District, Shanghai as the research objects, this paper aims to gain the understandings of the perception of the elderly people towards the life quality of nursing homes, therefore offer suggestions for the spatial design and service management of nursing homes in Shanghai, China. This paper would promote the development of nursing homes in Shanghai, China. Hence, the paper has significant practical values.

3. Research Design
3.1 Scale Design and Investigation Process

This research adopts the inventory-based approach to design the life quality perception scale in combination with literatures, pilot interview findings, and expert opinions. This research uses 8 positive items and 10 negative items to depict the feelings of nursing homes, and each question appears in the form of 5-point Likert Scale, where 1-5 respectively represents “strongly disagree”- “strongly agree”.

This research selects 10 neighborhood committees in 5 communities in Yangpu District for investigation, based on city geography, economic conditions, existing living conditions of the elderly people, epoch representation of residence construction and geographical adjacency principle. The survey lasts from March 2014 to May 2014. The research distributes 750 questionnaires, and collects 631 valid questionnaires with a response rate of 84.1%.

3.2 Analysis Procedure

First of all, this research attempts to obtain the positive and negative feelings of elderly people towards the life quality of nursing homes with descriptive statistics approach. Later on, the principal component analysis (PCA) approach is utilized to analyze the dimension structure of life quality perception of nursing homes. Finally, this paper raises suggestions for the optimization of nursing home spatial design and service management.

4. Data Analysis

4.1 Positive and Negative Characteristics of Life Quality of Nursing Homes

In terms of positive characteristics, elderly people consider that they could get the living and health care from dedicated caregiver in nursing homes (39.0%), decrease family burden of children (24.4%), and without loneliness (20.4%). The proportion of “strongly agree” of these three items is very high and the proportion of “strongly disagree” is quite low. As for three positive statements about life quality, including “nice residential environment”, “avoid children's conflicts” and “vacating the house (for children)”, a high percentage of elderly people expressed “strongly disagree” or “disagree” attitudes. This implies that in the mind of many senior citizens, the present nursing home environment did not meet their expectation. In addition, the phenomenon that elderly people is forced to choose institutional care is less common in actual life than the media reports (Fig.1).

In terms of negative characteristics, the elderly people consider that expenses of institutional care are charging too much (60.5%), it is three times more than the level of agreement on “family alienation” which ranks in the second place (20.0%). While being asked about the possibility of living in nursing homes, some elderly people even said that they prefer to live in the nursing homes but could not afford the expensive price. As for the statements of “learned dependency”, “difficult roommate relationships” and “children been perceived as lack of filial piety”, the proportion of “strongly disagree” and “disagree” are much higher than expected. It is shown that influence of negative social stereotype of nursing homes on the elderly people is not that significant as previously conceived, and they pay much more attention to the psychological feelings of themselves (Fig. 2).
4.2 Life Quality Perception Dimension Structure of Nursing Homes

As indicated by the initial test results of statistics, the KMO value is 0.778, and Bartlett’s test of sphericity is 0.000 (P<0.01). This implies that it is suitable for PCA. However, after the examination of the rotated component matrix and communality table, the factor loading of few principal components is less than 0.6. The factor loading of individual principal is in close proximity, and the difference between factor loadings is less than 0.3. Besides, the communality of 5 components is less than 0.5. The solution to such problems is removing inappropriate items gradually until all components meet the standards above-mentioned. During this process, 7 items of “children been perceived as lack of filial piety”, “family alienation”, “learned dependency”, “difficult roommate relationships”, “decreasing family burden of children”, “nice residential environment” and “safety” were deleted. 11 items were kept for further analysis.

Cumulative contribution of variance in the new PCA plan increases from 52.8% to 67.2%. In other words, the explanation power is obviously improved. After the correction, the KMO value is 0.675, and Bartlett’s test
of sphericity is 0.000 (P<0.01) (Table1). The communality is greater than 0.5. This means that the subjective perception has already been preferably retrieved. According to two standards that the eigenvalue is greater than 1 and the cumulative percent variance (CPV) is greater than 50%, the PCA is conducted with SPSS 22.0. The eigenvalues of 5 principal components are all greater than 1. Since the first 5 principal components could explain 67.2% variation of perceived life quality of nursing homes (Table 2), this paper determines to retrieve 5 principal components.

Table 1. Post- Correction KMO and Bartlett Test of Life Quality Perception of Nursing Homes

<table>
<thead>
<tr>
<th>Kaiser-Meyer-Olkin measure of sampling adequacy, KMO</th>
<th>Bartlett’s test of sphericity</th>
<th>Approx. chi-square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>898.507</td>
<td>55</td>
<td>0.000</td>
</tr>
</tbody>
</table>

11 items before rotation has high factor loading in the first 5 principal components. It means that they have high relevance to these principal component. However, meanings of these 5 principal components are inexplicable, it is hard to designate them. Hence, the component matrix rotation is needed, therefore, all principal components have practical meanings.

As shown in Table 2, the psychological discomfort in nursing homes of the first principal component could be named as “sense of institutional setting”. The life and spiritual cares for elderly people in nursing homes of the second principal component could be named as “care service”. The relationship between the elderly people and children of the third principal component could be named as “family relationship”. The insufficiency of nursery and daily life of the fourth principal component could be named as “comfort”. The fifth principal component about the charges of nursing homes could be named as “economic”.

Table 2. Rotated Component Matrix of Life Quality Perception of Nursing Homes

<table>
<thead>
<tr>
<th>items</th>
<th>1. sense of institutional setting</th>
<th>2. care service</th>
<th>3. family relationship</th>
<th>4. comfort</th>
<th>5. economic</th>
</tr>
</thead>
<tbody>
<tr>
<td>depression mood</td>
<td>0.773</td>
<td>-0.066</td>
<td>0.138</td>
<td>0.023</td>
<td>0.009</td>
</tr>
<tr>
<td>interference of individual life</td>
<td>0.745</td>
<td>0.144</td>
<td>-0.047</td>
<td>0.197</td>
<td>0.062</td>
</tr>
<tr>
<td>illiberality</td>
<td>0.733</td>
<td>-0.036</td>
<td>0.026</td>
<td>0.124</td>
<td>-0.045</td>
</tr>
<tr>
<td>dedicated caregiver</td>
<td>-0.014</td>
<td>0.805</td>
<td>-0.060</td>
<td>-0.142</td>
<td>0.205</td>
</tr>
<tr>
<td>without loneliness</td>
<td>0.104</td>
<td>0.701</td>
<td>0.109</td>
<td>0.053</td>
<td>0.049</td>
</tr>
<tr>
<td>varieties of entertainment</td>
<td>-0.126</td>
<td>0.666</td>
<td>0.210</td>
<td>0.202</td>
<td>-0.294</td>
</tr>
<tr>
<td>vacating the house</td>
<td>0.049</td>
<td>0.049</td>
<td>0.845</td>
<td>-0.041</td>
<td>0.116</td>
</tr>
<tr>
<td>avoid children's conflicts</td>
<td>0.083</td>
<td>0.153</td>
<td>0.803</td>
<td>0.117</td>
<td>-0.048</td>
</tr>
<tr>
<td>deficient nursery care</td>
<td>0.189</td>
<td>-0.009</td>
<td>-0.047</td>
<td>0.825</td>
<td>-0.008</td>
</tr>
<tr>
<td>poor diet</td>
<td>0.189</td>
<td>0.070</td>
<td>0.130</td>
<td>0.781</td>
<td>0.103</td>
</tr>
<tr>
<td>charging too much</td>
<td>0.015</td>
<td>0.083</td>
<td>0.083</td>
<td>0.106</td>
<td>0.940</td>
</tr>
</tbody>
</table>

5. Conclusions

The perception of the elderly concerning life quality of nursing homes may be classified into two subsidiary sets, the positive perception and negative perception. The positive perception of elderly about the life quality of nursing homes in Shanghai mainly includes dedicated caregiver, decreasing family burden of children, and without loneliness. The negative perception mainly refers to the high economic pressures.

The perception of elderly people about the life quality of nursing homes could be divided into 5 dimensions,
namely sense of institutional setting, care service, family relationship, comfort and economic. In the above-mentioned above, sense of institutional setting has the most prominent impacts, exactly prior to the care service.

6. Suggestions

6.1 Improving the living service quality in nursing homes and constructing nursing care insurance system

Firstly, together with the enhancement of subjective self-consciousness, elderly people mainly choose the institutional care from their individual care demands, the influence of traditional stereotype of nursing homes is gradually weakening. Therefore, the improvement of care service level is not only the necessary condition, but also the sufficient condition of the development of nursing homes. Secondly, terms of improving the affordability are big challenges faced by nursing homes (particularly those privately ran nursing homes). At nowadays, Shanghai government distributes elderly care service subsidies according to elderly care needs assessment system, and the subsidies are allowed to pay for the service fees of nursing homes. In the future, Shanghai government plans to enhance economic support and decrease the burden of elderly people in combination of nursing insurance system in the pilot.

6.2 Formatting daily life atmosphere in the nursing homes and avoiding the sense of institutional setting

Nursing homes should create daily life atmosphere through spatial design and service management, eradicate the difference between family life and institution life, decrease the controlled and restricted sense of institutional setting.

In terms of spatial design, it is necessary to avoid the plan pattern of interior corridor with rooms on both sides, and try to create affinity for the environment with small scale and family alike layout. In terms of service management, nursing homes should satisfy differentiated needs other than taking management convenience as the primary concern, avoid uniform life routines arrangement, respect the living habits of elderly people and improve elderly people’ sense of self-control.

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