

Supply-Side Model Optimized of Urban Social Provision-Service for the Aged under the Background of Accelerating Aging

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Abstract: The aging of the world was accelerating when the traditional function of home-based care for the aged was gradually degraded. However, the model of urban social care for the aged was still not perfect, whose efficiency and sustainability were greatly impacted which had also become a common problem faced by all countries and ignored the differences and vicious game between private and public provision for the aged institutions. The paper put forward that the key to solve the problems such as insufficient effective supply of urban old-age care and inactive model mechanism was to improve the supply efficiency of urban social old-age care model and continuously stimulate the enthusiasm of the main body on the supply-side.

1. Introduction

Improving the efficiency of old-age care mode and promoting the sustainable supply were the key problems to deal with the aging. At present, the world had entered a stage of accelerated aging. By the end of 2017, there were about 962 million people over the age of 60 in the world with an aging rate of 13 percent and an average annual growth rate of 3 percent [1]. With the acceleration of population aging and the sharp decrease of dependency ratio, the traditional function of home-based care for the aged was gradually degrading. However, the world had not yet established an effective mode of social care for the aged and its efficiency, supply-side effect and sustainable development were greatly impacted. This had also become a common problem for all countries to solve the imbalance between supply and demand of social care for the aged. Different from the rural land provision for the aged mode, urban provision for the aged could rely on more external resources and was more affected by the main body on the supply-side, so it was necessary to carry out efficiency analysis of different main body on the supply-side. In this paper, it broke through the traditional pattern of old-age "dichotomy" and "three-point method" according to the supply-side of the main body[2], the urban social endowment could be divided into public institutions endowment, enterprise institution endowment and community endowment and provision for the aged mode that occupied the home, which was the first to carry out the supply-side of the game analysis of urban social endowment mode and trying to find four patterns of influence factors and Nash equilibrium, which also first proposed urban social provision for the aged was the key to promote sustainable endowment pattern efficiency to improve the current endowment patterns as a goal and the urban social provision for the aged specific path.

2. Characteristics and comparison of supply-side model of urban social old-age service

According to the differences between the main supplier and the leading force, this paper divided supply-side model of urban social old-age service into four models: government-led public sector

model, enterprise-led private sector model, community-led mutual assistance model and family-led independent model [3]. The main body of housing endowment was the family into the category of family endowment. The combination of medical care and nursing was mainly promoted by enterprises and incorporated into the private provision for the aged field led by enterprises. Among them, although government-led public provision for the aged institutions and enterprise-led private provision for the aged institutions were both institutional provision for the aged institutions, they were quite different in terms of funding sources, personnel status and material security. Therefore, they should be distinguished from each other.

2.1. Characteristics of the old-age care model in cities and towns

2.1.1. Government-led urban provision model for the aged

Government established a public provision institutions for the aged, such as nursing homes, welfare homes, nursing home to receive a helpless old man in need of help, offer out, supporting, special old man out of family life in public provision for the aged institutions to enjoy the life care was given priority to such as clothing, food and living fitness, recreation and other spiritual comfort which was complementary services and belonged to the bottom of physical endowment where funding sources were mainly the government fiscal "pay".

2.1.2. Enterprise-led urban provision for the aged model

Private provision institutions for the aged dominated by enterprises were an important force for urban provision for the aged. The main bodies of their provision for the aged modes were enterprises with strong economic strength and social responsibility, generally with strong financial strength and they were willing to devote themselves to the construction of provision for the aged institutions and provision for the aged services. Enterprises should invest in the construction of apartments for the aged or welfare homes for the aged and provide fixed places for the aged in need of social support, charge relatively high maintenance fees and provide material security and life care services.

2.1.3. Community-led urban provision for the aged model

The community was the basic-level mass autonomous organization. Under the community neighborhood committee or the mass association organization, it provided the community and the home joint provision for the aged service. The elderly in the community usually lived in their own homes at night and receive daily care, medical services, spiritual comfort and help from the community during the day at an appropriate charge. Community endowment was a form of mutual assistance of day community care and home visiting service which combined the advantages of institutional endowment and family endowment. The service targets were mainly the elderly in the community who could obtain partial policy and financial support due to non-profit products.

2.1.4. Family independent endowment mode

As the provision mode for the aged with the longest history, the most popular mode and covering the largest number of people, family provision for the aged was the most important provision mode in terms of financial support, life care and spiritual comfort for the elderly. Despite the impact of community provision for the aged, public and private provision for the aged institutions, family provision for the aged was still regarded as an important means of provision for the aged and playing an irreplaceable role. The first was to meet the requirements of family ethics for thousands of years, then to provide emotional and spiritual comfort. However, with the rapid aging family structure and the relocation of children and other trends, the traditional family comfort, convenient life and filial ethics were gradually eroded and the family provision for the aged function was constantly weakened.

2.2. Comparison of the supply-side model of urban social old-age service

According to the SWOT theory, this paper discussed the differences between family provision, community provision, public institution provision and private institution provision for the aged from four dimensions: superiority (S), weakness (W), opportunity (O) and threat (T) (table 1).

Table 1. SWOT comparison of supply-side model of urban social provision service for the aged

SWOT	Public institutions for the elderly	Private institution endowment	Community provision for the aged organization	Family endowment model
Superiority(S)	Support Provision, social security policies and financial support	Suitable , full service, strong professional, flexible mechanism	Resource saving, low cost, convenient service and emotional satisfaction	Emotional maintenance, the lowest cost, the most extensive range
Weakness(W)	Low service levels and development uneven	High cost, charge much, little emotional comfort	Lack of financial support, equipment, materials and funds	Low level, little and weak ability, idea changes
Opportunity (O)	Easy access to policy support and external donations	National policies encourage to participate in social activities	Attaches importance, policy encourages, accord with old person life actual situation	Improved social security system and strengthened old-age legal system
Threat (T)	Low public investment, insufficient professional talent, big competition	Weak purchasing power, low participation and less resources	Provision institution competition, low participation, narrow scope, weak security	Function attenuation, external competition, family structure change

3. Game analysis of the supply-side model of urban social provision service for the aged

By using the game theory, it could find out the root of the total supply and effective supply shortage of the social endowment mode and made up for the imbalance of the supply and demand structure.

3.1. Construct the game framework of the supply-side model of urban social endowment

In practice, the competition between public and private provision for the aged institutions had the highest degree of coupling, where the former was in a strong position in terms of human, financial and policy. Many public provision institutions for the aged had accepted a large number of capable people with good economic conditions, complete family structure and strong self-care ability, thus occupying the resources that should be provided by private provision for the aged institutions. The two were in a fierce game. Community and public provision for the aged agencies had to strive for government provision for the aged policy and project, which was a kind of both "support, guidance, competition" coexist, where the relationship between part of the pursuit of higher provision for the aged cost of quality of life of old people chose higher, better service of private provision for the aged institutions, community endowment and private provision for the aged institutions appearing "transformation, competition and cooperation". With the refinement of family structure and the increase in the number of children away from home, the function of traditional home-based care for the aged was weakened, and the layout was scattered, the neighbors did not know each other and they were the most vulnerable in the game of old-age care. They were integrated, complementary, cooperative and competitive with communities, public and private old-age care institutions, respectively (figure 1).

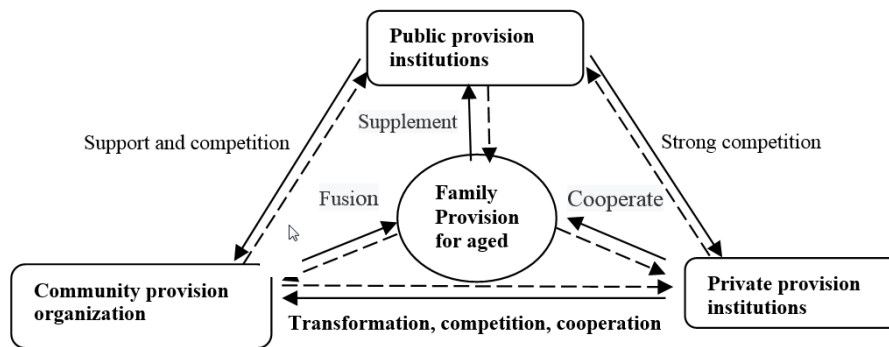


Figure 1. Interest game of the supply-side model of urban social endowment

3.1.1. Public provision institutions for aged: dominated by administration with strong policy constraint

Public provision service institutions for the aged lay particular emphasis on the government's administrative guidance and had strong policy constraints. The central and local governments provided financial and human assistance to the elderly in cities and towns, which could gain the authority and "psychological" recognition of the elderly. The price of provision products for the aged had the advantage of cost performance and it was often "difficult to get a bed". On the other hand, the public provision service institutions for the aged lacked a sense of crisis in the market and initiative to improve the quality of provision services for the aged leading to stagnant provision level for the aged and some innovative provision projects for the aged were difficult to promote, which was not conducive to meeting the market demand of urban social provision for the aged.

3.1.2. Private provision institution model: self-driven by profit and weak sense of social responsibility

Private capital was varied in scale and its involvement in provision services for the aged which was often subject to the lack of financial strength, small scale and weak operational stability. In terms of policies and projects, compared with government-led public provision for the aged institutions, private capitals belong to "vulnerable groups". The entry cost, operation cost and development cost of private provision institutions for the aged were high, but the supply and development space of provision for the aged services were wide. On the other hand, due to weak government regulation and weak sense of social responsibility private provision for the aged institutions were easy to be driven by the nature of self-seeking with low overall occupancy rate and social recognition to be improved.

3.1.3. Community endowment mode: insufficient organizational ability and blocked vitality

Community provision for the aged was close to home life, widely accepted, good development trend. However, due to the limited external support and capital, weak organizational capacity of resources, insufficient vitality of its own development, difficulties in site construction and planning, it was difficult to meet the ever-expanding needs of community elderly care. Therefore, it was urgent to provide policy support such as urban land planning and social financial support.

3.1.4. Home-based endowment mode: in a weak position with poor anti-risk ability

Endowment in family was currently the world's major endowment way that occupied the home, such as family structure, decreases, family day care, instability increases, which was not conform to the trend of social endowment, less likely to cause a physical and mental care, external support and many other risks, trend gradually decay at the same time facing the community endowment, institution endowment of strong competition and declining share of social endowment service supply.

3.2. Game results and ideal model optimization of the supply-side model of urban social endowment

At present, the function of home-based care for the aged was gradually weakened and the elderly in cities and towns were mainly scattered in independent families. Due to late start, small scale, weak foundation and low grade, community provision for the aged was difficult to meet the increasing needs of community elderly provision for the aged. As public provision service institutions for the aged were led and supported by the government, they received more preferential policies and projects and attracted the elderly who should had entered enterprise provision service institutions and community provision service organizations for the aged, thus occupying a "strong" position in the provision for the aged game. Therefore, it suggested that public provision for the aged agency should return "out" standard out of a for-profit business, reducing public and private provision for the aged institutions, community endowment of malignant game which could activate the private provision of idle resources. It should make up the shortage of community provision development and improve the software and hardware conditions. Urban elderly association should be established to improve the organization and coordination, information sharing and policy acquisition ability of home-based care and enhance the game strength with public and private provision for the aged institutions and communities.

4. Conclusion

4.1. Improve the supply of endowment mode for demand-oriented

Under the limited endowment resources, it was suggested to replace the supply orientation with the demand orientation and enhance the effective supply of endowment mode. Suggest further combined with the theory and practice of urban social endowment the supply-side, the old man in town demand survey, in order to satisfy the demands of urban old man diversified actual endowment as a starting point, change the public provision for the aged agency model dominance, enterprise and community endowment patterns involved in the situation of insufficient, fully mobilize endowment patterns under different supply-side of the main body of benign competition advantage, improve the ability of effective supply of the provision for the aged mode.

4.2. Allocate urban provision resources for the aged with the goal of "efficiency and sustainability"

The allocation of social provision for the aged resources should improve the efficiency. In the case of insufficient provision resources for the aged, "Do not ask for all but must be used". It was helpful to clarify the ideal game model and Nash equilibrium point of the four provisions for the aged models by constructing the game framework to analyze the game strategy of the provision model for the aged of the urban society under the main body of the supply-side. Using the fuzzy evaluation method, the short-term, long-term and overall efficiency of the four models were ranked and analyzed. Combined with the "coping with the aging population and meeting the needs of the elderly" proposed by the party central committee, it was suggested that the key to urban social provision for the aged was to promote the sustainable improvement of the efficiency of the provision for the aged supply-side model.

4.3. Take provision mode for the aged moved towards "four-in-one" from segmentation to integration

The new provision model for the aged should be built on the basis of home-based provision for the aged with government assistance as the auxiliary, community-led model as the main and enterprise-led model for long-term development. From strengthening government support and going of the provision market for the aged, optimizing the game framework, government regulation, it should improve the urban social provision supply-side model specific strategies for the aged trying to juggle length endowment efficiency promotion, arousing the enthusiasm of all provision supply-side model for the aged and promoting the efficiency of urban social endowment sustainable to solve the

increasingly serious aging problem and promote "old be raised, the old-aged providing" target as soon as possible.

4.4. Improve the supply-side structure and promote the Nash equilibrium of the supply-side game

In the combination of provision for the aged game, home-based provision for the aged was at an obvious disadvantage and public provision institutions for the aged were in a "strong" position, which "preempted" the resources that should be entered into enterprise provision for the aged institutions and community provision for the aged organizations. By building a game model, this paper analyzed the game strategy and Nash equilibrium point of the urban social endowment mode under different supply-side subjects and tried to realize the Nash equilibrium of the urban social endowment mode from the aspects of the provision for the aged game framework, game rules and signal acquisition.

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