

Analysis of the Problems and Countermeasures of China's Aging Population

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Abstract. The overall scale and proportion of the aging population in China is on the rise. The rate of population aging is further accelerated. The trend of advanced aging is increasingly obvious. This study analyzes the current situation and causes of the aging population and proposes specific solution paths and strategies. The authors suggest reducing the impact of population aging by encouraging childbirth to fundamentally increase the number of newborns population, actively promoting the policy of delaying retirement, and building a redistribution system compatible with an aging society. Society is suggested to accelerate the establishment of a sound social security system and to reduce the stereotype of the aged. Applying modern science and technology and better public policies can improve the quality of services for the elderly. These suggestions in this paper provide a reference for improving the social work of the elderly, which is conducive to improving the quality of life and happiness index of the elderly.

Keywords: Aging Population, Public Health, Strategy.

1. Introduction

The scale and proportion of the elderly population in China are generally on the rise, and the rate of population aging has further accelerated, with the trend of advanced aging becoming more prominent and the proportion of elderly people in rural areas being higher than that in urban areas [1]. The ensuing problems include the continuous shrinkage of the labor force, the heavy burden of social retirement, and the increased pressure on economic operations [2, 3]. Based on the analysis of the current situation and causes of aging, specific solution paths are proposed to fundamentally increase the size of the labor force by encouraging childbirth, constructing a redistribution system that is compatible with an aging society by actively promoting a delayed retirement policy, accelerating the establishment of a sound and complete social security system, changing the concept of old age, applying and serving modern technology and public policies to the elderly, and improving the quality of life as well as happiness index of the elderly, and provide useful references for strengthening the construction of social work for the elderly. To study the current situation and causes of population aging, so as to solve the impact of population aging on social and economic development, to let the elderly enjoy the fruits of economic and social development together with others, and to establish and improve the social welfare protection system for the elderly.

2. The current aging population in China

According to the latest data released by the Ministry of Civil Affairs, China will step into a "moderately aged" society during the "14th Five Year Plan" period, with more than 300 million elderly people nationwide [4]. In 2020, China's elderly population aged 60 and above reached 264 million, accounting for 18.73% of the total population, up from 13.32% a decade earlier [4]. Over the past 10 years, the population increases by 8.64 million annually, with an average annual growth rate of 4.04% [4]. The size of the elderly population aged 65 years and older is huge, with the number has exceeded 191 million, accounting for 13.52% of the total population, up from 8.92% in 2010 [4]. In the last 10 years, figures about the elderly population have been added to 7.17 million per year, with

an average annual growth rate of 4.83% [4]. At the same time, the aging of the population is gradually becoming more prominent, and the degree of aging in rural areas is gradually higher than that in urban areas [4]. The expansion of the elderly population is accompanied by the increasing burden of social support [4]. In 2020, the total dependency ratio of China's population will reach 45.98%, which means that every 100 people of working age 15-64 years old will have to support about 26 children aged 0-14 and about 20 elderly people aged 65 years and above [4]. At present, China still needs to increase investment to improve the development of the elderly. Effective and rational use of resources to meet the challenges posed by the increasing burden of old age. To let hundreds of millions of elderly people share the fruits of reform and development and to let them enjoy a happy old age depends on the joint efforts of all parties, including society, families, and individuals.

3. Analysis of population aging in three aspects

3.1. Problems and burdens of aging on social and economic aspects

3.1.1. Shortage of young labor force

The slowdown of economic development brought by the aging population comes from the shortage of a young labor force and insufficient productivity on the one hand, and from the lower purchasing power, lower acceptance of new technologies, and lower innovation ability of science and technology industries on the other.

The demographic dividend of the past decades has created a very low labor cost, while the aging population will make this advantage decline or even disappear, and many industries will enter a state of extreme labor shortage. The aging of the population will also directly or indirectly lead to a slowdown in economic development. The aging of the population may not be conducive to the promotion of new products in the consumer field, and the decrease in consumption capacity and lack of market demand will lead the economic market into a depressed state. It is well known that economic development is associated with technology, capital, and labor force, and the gradual reduction in the size of the labor force affects the economic development of the country. Studies have shown that it takes more than a 15.4% increase in the effective labor force to offset the negative impact of a 5% decrease in the labor force, and the shortage of the labor force will reduce the income and welfare level of the nation [5]. With the changes in China's labor force, small and medium-sized enterprises (SMEs) will at the same time experience labor shortages of varying degrees, and for this reason, SMEs should be prepared to deal with various shocks and changes brought about by industrial upgrading in the coming period.

3.1.2. Increased government spending on pension

The issue of population aging is most likely to raise the risk of financial sustainability of old age [6]. Governments need to increase the cost of pension insurance for more elderly people while bearing the burden of lower economic income. Currently, pay-as-you-go pension systems and fund accumulation pension systems are common internationally. The sustainability of the pay-as-you-go system is threatened. As the elderly population is supported by a younger labor force population. The sustainability of the social pension burden continues to increase as the total labor supply continues to decline and the proportion of the older population surges, with an increasing proportion of working seniors. Population aging and economic growth initially show a positive correlation, but this positive correlation gradually diminishes [7]. This may be due to the fact that the acceleration of physical capital accumulation and the prolongation of the demographic dividend associated with population aging are positively reciprocated by economic growth during the initial phase of population increase. , the positive correlation between population aging and economic growth gradually diminishes with population aging and may even change in the opposite direction in the future. As the aging process continues to progress, the pressure on health care and other expenses will also increase in parallel.

3.2. The weakening of traditional filial piety ethics

As the proportion of the elderly population increases, more and more elderly people need more support from society for their old age. The development of aging in China has obvious regional differences. In terms of the concept of aging, it is necessary to consider changing the rational expectation of individuals for the future and stimulating their motivation for aging. Insufficient resources and an inadequate system for social elderly care led to an unbalanced model of family and social elderly care [8]. China's family development with the social and economic development and cultural concept change, the number of empty nests of the elderly and the elderly living alone is increasing significantly. Without children or family members to take care of them, the above families will have to rely on society to provide more service support. With the development of aging, more and more senior citizens older than 80 years old will choose society.

3.3. Problems and burdens of elderly care and medical care

3.3.1. Shortage of medical resources and imperfect pension service system

Population aging has led to a gradual increase in the demand for healthcare resources [9]. While the demand for health care services among the elderly is in the increasing trend, the development related to health care for the elderly is still lagging behind and the current supply of health care resources is unable to provide adequate medical services to face the increasing number of elderly people. There are not enough doctors and nurses to provide adequate care for the growing elderly population. The ability status of senior citizens directly affects their health level and quality of life, and the support and service care problems caused by their disability also bring huge economic burden to families and society, while the existing elderly care model and social support in China can hardly support such a large elderly group. For the fledgling senior care service, China's private capital participation enthusiasm is high, but the supervision of government agencies is relatively backward, the professional skills of community senior care participants do not meet the psychological expectations of the elderly population for personalized senior care, and the policy regulation and measures need to be further optimized and improved.

3.3.2. Shortage of medical resources

The medical education system for the elderly is lacking. The combination of medical care and nursing care is not promoted deeply. The disease spectrum of the elderly will be affected by the phenomenon of population aging and change accordingly. According to statistics [10], 80% of the elderly will suffer from one or more chronic diseases, making them more vulnerable than healthy people and causing some impact on their health. The most common diseases are cardiovascular diseases, such as coronary heart disease, hypertension, arrhythmia, age-related heart disease, and heart failure, which almost occupy the main position of diseases in the elderly. Some elderly women are also more likely to suffer from breast cancer, gallbladder cancer, uterine cancer, diabetes, which is a systemic metabolic disease (chronic), the prevalence of which has gradually increased in recent years, and finally respiratory diseases. In addition, Alzheimer's disease, arthritis, cataract, constipation, osteoporosis, etc. can also have a bad impact on the health and quality of life of the elderly.

Due to the age of the elderly, the body's organs are aging and their functions are decreasing, coupled with changes in the surrounding environment, it is more common for the elderly to have strong psychological and emotional changes [11]. For example, some elderly people may develop basic physical diseases such as hypertension and diabetes, which may have certain effects on their psychological aspects; some elderly people may have psychological changes such as selfishness, stubbornness, dissatisfaction, and paranoia about participating in society; and changes in living environment may cause depression, loss, and loneliness; some elderly people may have changed such as loneliness because their children are not with them or they are widowed. Some older adults may experience changes such as loneliness and anxiety because their children are not with them or they

are widowed. In addition, some studies have shown that retirement is the most important factor affecting the mental health of older adults, followed by widowhood.

4. Suggestions

4.1. Suggestions on the negative side of social economy

Ensure sufficient productive capacity by strengthening employment guidance for older adults and delaying retirement from some positions. By learning from Japan's employment policies for the elderly. Japanese organizations and platforms such as the "Silver Talent Center," "Tokyo Work Center," and "Public Employment Stabilization Center" have established a comprehensive employment guidance system for the elderly and constructed an employment information matching system to help the elderly achieve employment smoothly. From the perspective of the number of the elderly in Japan, the number of the elderly over 60 years old has shown an increasing trend, and their proportion in the working population has been rising [12]. Statistics in 2019 show that the number of elderly people employed in Japan has increased by two times compared with the late 1980s [12]. China can learn from Japan's employment guidance policy and combine the actual situation of our country to build a talent service center for the elderly, and use the advantages of trade unions to regularly hold job fairs for elderly jobs. Through the establishment of an information platform, with the help of big data platform, we can collect jobs conducive to the employment of the elderly and solve the problem of information asymmetry. At the same time, through the establishment of community talent service centers, the registration system will be implemented for the elderly who have the intention of continuing to work. Through the formal employment agency, the matching of employment positions and skills of the elderly will be done well to ensure the employment rights of the elderly.

Japan has adopted measures to postpone the retirement age in terms of retirement policy for the elderly. More than a quarter of Japanese enterprises allow employees over 70 to continue working in enterprises [12]. The flexible retirement policies of some countries in the Organization for Economic Cooperation and Development can be appropriately used for reference in combination with China's actual national conditions, cultural traditions, and historical evolution to increase the flexibility factor [12]. For example, the flexible retirement age is implemented, and three age levels are set: the minimum pension age (60 years old), the normal retirement age (about 5 years more than the early retirement age), and the delayed retirement age (about 3 years more than the normal retirement age).

Government should actively encourage the employment of the elderly. We can solve the problem of employment of the elderly by increasing public welfare posts. For example, China's finance needs to purchase social public services every year, mainly in the fields of public welfare posts, whose wages are usually relatively low, and ordinary young workers are unwilling to engage in them. Therefore, special purchases can be used to provide jobs for the capable and qualified elderly and broaden employment channels for the elderly.

4.2. Suggestions for caring for the elderly

Combination of family support and social support, emphasizing the responsibility and obligation of the family to support the elderly. Family culture is the source of rural culture. The family has the meaning of "root" in Chinese traditional culture and is a structural force for social stability. The implementation of the rural revitalization strategy is inseparable from the focus of "home", and the core of family culture is family-style construction. Cultural revitalization attaches importance to the construction of rural style, reconstructs family culture through the construction of rural style civilization, advocates the "filial piety culture" of respect and filial piety, emphasizes the responsibility and obligation of families to support the elderly, integrates family style into the rural style, and makes the socialist core values "take root" in rural families.

4.3. Suggestions for public health

Establish education and learning service points for the elderly, improve the elderly care service system, and improve the service quality by combining medical care with nursing care. Vigorously develop senior education and set up learning points for senior education at the grassroots level [13]. Public cultural facilities at all levels have been open to the elderly for free, and tourist attractions around the world have implemented preferential policies for the elderly. We have carried out an aging-friendly renovation in old urban areas and special difficulties for elderly families and promoted the construction of a livable environment for the elderly. Increasing professional elderly care resources can ensure adequate and professional public health resources facing the elderly [14]. For example, the elderly care industry, the nursing home integration industry, and the Internet medical data system can provide elderly health care resources for the physical and mental health of the elderly. With the change in the medical model, medicine gradually shows the trend of penetration to social science, which shows that; the health and disease problems of the elderly also need to be viewed in terms of physical, psychological and social integrity. As far as the social health of the elderly is concerned, it consists of family health status, social interaction, social support, and social activities. The aging of the population will undoubtedly affect the productivity of the labor force, which in turn affects economic development, and the level of economic development in places with a high level of aging is relatively low due to the aging of the population, which in turn puts some pressure on the development of the country and society. However, the resulting health and disease problems of the elderly population also suggest that we should be fully aware of the importance of this issue [15, 16]. Therefore, the establishment of a healthy aging society is the main task of medical workers, and in the future, they should actively carry out epidemiological studies and grasp the current situation and trends of population aging in China, and then make certain preparations to deal with population aging and its health and disease problems.

5. Conclusion

In the face of the growing problem of population aging, the whole society should pay great attention to it, implement relevant policies according to the root causes of the problem, protect the rights and interests of the elderly, care for their physical and mental health, and enrich their living conditions, while the state should strengthen the cultivation of gerontology-related professionals, and expand relevant public health resources and research fields with the elderly as the starting point. We should extend the "demographic dividend" period and make use of the flexible retirement system to allow senior workers to continue to contribute to society, so as to reduce social pressure and strengthen national economic security. In addition, it is necessary to make use of relevant policies and benefits to provide young families with economic and material security, so as to increase the motivation of people of childbearing age. Population aging is not only a development condition of the country's population but also a holding factor for the country's development. Active response to the impact of the aging population and implementation of appropriate solutions will allow us to better solve the substantive problems. The gradual aggravation of an aging society has become a major public health problem faced by countries all over the world. The country pays attention to strengthening countermeasures, establishing a sound elderly service system, supporting community elderly institutions, conducting in-depth research on geriatric diseases, actively preventing and controlling chronic diseases of the elderly, improving the quality of life of the elderly, and striving to promote the development of a healthy aging society. The current countermeasures for population aging are not perfect and should be adjusted at any time with the changes of China's economic development. It is necessary to introduce a series of supporting measures such as education subsidies, fertility subsidies and delayed retirement to further enhance residents' willingness to have children and alleviate the trend of deepening population aging.

References

- [1] Xin Xiang, Yi Wang. The current situation, characteristics, causes and countermeasures of china's aging population. *Chinese Journal of Gerontology*. 2021, 41 (18): 4149 - 4152.
- [2] Yue Zou. The social problems caused by the aging of China's population and the solutions. *Leisure*. 2018 (09): 42 - 43.
- [3] Shijing Zhu. Current situation and countermeasures of China's population aging. *Cooperative Economy and Technology*. 2021 (12): 190 - 192.
- [4] Hanmo Yang. The new trend of China's aging population and the new characteristics of the elderly population. *Population Research*. 2022, 46 (05): 104 - 116.
- [5] Palermo J, Fuller-Tyszkiewicz M, Walker A, Appannah A. Primary- and secondary-level organizational predictors of work ability. *J Occup Health Psychol*. 2013, 18 (2): 220 - 229.
- [6] Harper S. Economic and social implications of aging societies. *Science*. 2014, 346 (6209): 587 - 591.
- [7] Jin Cheng, Yonghong Zhao, Liguang Li. Impact of China's aging population on economic development. *China Business Review*. 2022, (17): 150 - 152.
- [8] Rui Yang. Research on the elderly care of "empty nest elderly" in the context of an aging society. *Wealth Today*, 2021, (17): 229 - 231.
- [9] Dillon D, Gary F. Full practice authority for nurse practitioners. *Nurs Adm Q*. 2017, 41 (1): 86 - 93.
- [10] Bouarich H, Chávez Guillén A, Rodríguez Puyol D. Kidney and hypertension in older adults. *Riñón e hipertensión en el anciano*. *Med Clin (Barc)*. 2021, 157 (4): 178 - 184.
- [11] Merz CC, Koh D, Sakai EY, et al. The big shortage: neuropsychologists discuss facilitators and barriers to working in the field of aging. *Transl Issues Psychol Sci*. 2017, 3 (4): 388 - 399.
- [12] Jie Liu. The Enlightenment of Japan's employment policy for the elderly on China's aging response. *Contemporary Economy*. 2020, (01): 4 - 6.
- [13] Zissimopoulos J, Blaylock B, Goldman DP, Rowe JW. Raising the Social Security Entitlement Age. *Res Aging*. 2017, 39 (1): 166 - 189.
- [14] Quinn MM, Markkanen PK, Galligan CJ, Sama SR, Lindberg JE, Edwards MF. Healthy aging requires a healthy home care workforce: the occupational safety and health of home care aides. *Curr Environ Health Rep*. 2021, 8 (3): 235 - 244.
- [15] Sun J, Guo Y, Wang X, Zeng Q. mHealth for aging China: Opportunities and challenges. *Aging Dis*. 2016, 7 (1): 53 - 67.
- [16] Fangfang Liu. Research on the current situation of population aging in China and the mode of combination of medical care and nursing care. *Chinese Journal of Geriatric Health Care*, 2020, 18 (06): 31 - 33.