

Age-Friendly City Construction and Its Practical Application: A Case Study on the Application of Service Demand Research for the Elderly in Guangzhou, China

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ABSTRACT

This study is based on the age-friendly community framework advocated by the World Health Organization as the research premise. Through the continuous international academic research cooperation between China and Canada, reference is made to the age-friendly community strategy of Alberta, Canada and the construction practice of the age-friendly city in Calgary, carry out a special investigation on the needs of elderly care services in Guangzhou, apply the international framework of an age-friendly city to the construction of an age-friendly city in Guangzhou, and the construction of specific cities and communities in Guangdong–Hong Kong–Macao Greater Bay Area in China. Based on the demographic development and policy background of China and Guangzhou, this study implements the needs of the national strategy of actively cope with population aging. In preparation for building Guangzhou into an age-friendly city and a city with a livable environment integrated with its own characteristics, providing a theoretical framework, and aimed for building a model city of healthy aging and livable living in the Guangdong–Hong Kong–Macao Greater Bay Area. It could be a sample of healthy aging cities in the Bay Area and models that can be used for reference by other cities.

Keywords: elderly service demand, aging-friendly city construction, qualitatively study

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Городское строительство, ориентированное на пожилых людей, и его практическое применение: тематическое исследование спроса на услуги для пожилых людей в г. Гуанчжоу, Китай

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РЕФЕРАТ

Это исследование основано на концепции сообщества, которое учитывает возрастные особенности. Данная концепция активно продвигается Всемирной организацией здравоохранения. Поскольку Китай и Канада непрерывно сотрудничают в области академических исследований, автор ссылается на стратегию сообщества в провинции Альберта

(Канада), ориентированную на пожилых людей, и практику строительства города в Калгари (Канада), благоприятного для пожилых людей. Автор приводит исследование спроса на услуги по уходу за пожилыми людьми в г. Гуанчжоу (Китай), где к строительству города, ориентированного на пожилых, применяются международные стандарты. Также анализируется строительство конкретных городов и сообществ в Районе Большого залива Гуандун — Гонконг — Макао (Китай). Данное исследование проведено с учетом демографического развития и политики в Китае и г. Гуанчжоу и отвечает потребностям национальной стратегии активного противодействия старению населения. Исследование обеспечивает теоретическую основу для создания города в Районе Большого залива Гуандун — Гонконг — Макао (Китай), благоприятного для жизни пожилых людей, а также предлагает путь превращения Гуанчжоу в такой город с благоприятной средой, сохраняя его характерные особенности.

Ключевые слова: спрос на услуги для пожилых людей, городское строительство, ориентированное на пожилых людей, качественное исследование

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I. Research Background of Age-friendly City Construction

According to the definition of the World Health Organization, healthy aging is a “process of improving and maintaining functional capacity, thereby promoting the health of the elderly” (World Health Organization, 2002). From this, we can see that in order to promote healthy aging, it is necessary to maintain and enhance the functional capacity of the elderly. Functional capacity includes five aspects: 1. Meet one’s basic needs; 2. Learning, development and decision-making; 3. Action force; 4. Establish and maintain interpersonal relationships; and 5. Contribute to society. Functional capacity is affected by the individual’s internal capacity (that is, the combination of physical and mental functions that the individual can use at any time), environmental factors (personal life background from micro to macro levels, such as family, community and society), and the interaction between internal capacity and environmental factors (Beard et al., 2016). As you get older, the intrinsic capacity of the elderly will decline; but if environmental factors can provide adequate support, the elderly can still maintain good functional capacity. An environment that maintains and promotes the functional capacity of older persons includes four aspects: 1. Improve the health system so that older people with different levels of intrinsic ability can be served; 2. Developing a high-quality and sustainable long-term care system; 3. Create a friendly environment for the elderly; 4. The health status and needs of the elderly are continuously assessed and monitored (World Health Organization, 2015). The World Health Organization has put forward specific measures in these four areas. For the health system, they suggest that the health system should be built according to the needs of the elderly and focus on building internal capacity and developing a well-trained and sustainable health workforce to deliver services.

For the long-term care system, in addition to building a management system with clear authority and supervision mechanism, it also needs the support of a well-trained and sustainable long-term care team. In terms of a friendly environment for the elderly, it can be built from these eight aspects (transportation, housing, social participation, community inclusion, citizen participation and employment, information exchange, community support and care services, outdoor space and places). The concept of an age-friendly city is based on the “active old age” proposed by the World Health Organization, which is rooted in a supportive livable environment to make residents healthier. Increase participation and well-being so that they are better aging at home / in the community

(World Health Organization, 2002, 2007, 2015). The eight categories of livable and friendly cities for the elderly include: 1) public space and buildings, 2) transportation, 3) housing, 4) social participation, 5) respect and social inclusion, 6) community participation and employment, 7) communication and information, and 8) community support and health services. The World Health Organization put forward this concept in 2007 to practice the concept of “active old age” advocated by it. Active ageing (World Health Organization, 2002) is about “improving the quality of life as populations age by optimizing opportunities for health, participation, and security”. Active later life includes the ability to be physically active or to participate in the workforce and about a person’s mental health and social connections as they get older¹. The concept of age-friendly cities is the first attempt of the World Health Organization to respond to the issue of ageing with a theoretical framework. This concept recognizes the importance of environmental cooperation and support. The World Health Organization encourages age-friendly communities to develop “barrier-free” environments, including the hardware aspects of the environment and the software aspects of socio-political, economic, social and religious environments. For the evaluation and monitoring system, we should first reach a consensus on the indicators, evaluation and analysis of healthy aging, increase the understanding of the health status and needs of the elderly population, and finally evaluate the effectiveness of measures to promote healthy aging. Therefore, in addition to pursuing a clean, comfortable and safe living environment, the livable and environmentally friendly cities for the elderly should be built. It also pays attention to the opportunities for neighbors to watch each other and individuals to participate in social activities.

The concepts of “active aging” and “barrier-free” in age-friendly communities proposed by the World Health Organization are similar to the concepts and measures of actively responding to aging in the National Population Development Plan (2016–2030) issued by China. The purpose of this study is to understand the service needs and preferences of the elderly at the community level on the basis of the framework of livable and environmentally friendly cities for the elderly in Guangzhou. The research results are applied to the construction of livable and environmentally friendly cities for the elderly in Guangdong-Hong Kong-Macao Greater Bay Area and Guangzhou and the relevant suggestions for the formulation of service policies for the elderly.

II. Conceptual Framework for the Construction of Age-friendly Cities

(1) The core framework for the construction of harmonious and livable cities²

The connotation of livable environment city includes six aspects, that is, livable city should be a city with healthy environment, safe city, natural and pleasant city, harmonious society, convenient life and convenient travel: 1) a healthy city should be far away from the potential hazards of various environmental pollution or harmful substances. It has fresh air, good water quality, clean streets and comfortable living environment; 2) a safe city should have a sound disaster prevention and early warning system, a perfect social order ruled by law, and a safe daily living environment; 3) a natural and pleasant city should have comfortable climate, good green environment, accessible waters and suitable open space; 4) a socially harmonious city should have the spirit of tolerance and justice, and respect for the history and culture of the city; 5) convenient

¹http://www.hkcss.org.hk/uploadFileMgnt/0_201732153159.pdf (P. 3).

²Zhang Wenzhong (2016). The core framework of livable city construction. *Geographical Studies*, 35 (2). doi: 10.11821/dljy201602001.

cities should have convenient, fair and sound public service facilities, and everyone can enjoy the convenience brought by medical, educational, shopping and other living facilities; 6) cities with convenient travel should give priority to the development of public transport system and advocate green travel. In other words, a livable city should be a city with safety, pleasant environment, convenient public service facilities, harmonious society and distinctive regional characteristics.

It can be seen that livable city is a safe and comfortable city for all residents, including the livable connotation for the elderly residents. This study allows us to better understand the needs of the elderly living in the community on the basis of the age-friendly community framework, and to see how to better promote home/community care.

(2) The goal and concept of urban construction of livable environment for the elderly¹

Based on the two global trends of population aging and urbanization, the World Health Organization has put forward the concept of livable and environmentally friendly cities for the elderly, because with the development of cities, the proportion of people over 60 years old is increasing. Older persons are a resource for their families, communities and economies, supporting our living environment. The purpose of the construction of livable and environment-friendly cities for the elderly is to promote the development of cities to be friendly to the elderly, so as to fully tap the potential of the elderly and promote a more harmonious human society.

The construction of livable and environment-friendly system for the elderly includes eight categories. At the project consultation meeting, the World Health Organization, based on data collection from 33 regions of the world, believes that in category 1) Outdoor space and buildings: outdoor environment and public buildings play a great role in the initiative of the elderly and improving their quality of life, affecting the ability of the elderly to provide for the aged at home; 2) Transportation: Convenient, fast and reasonably priced public transportation is a key factor affecting the travel of the elderly, which first affects the free activities of the elderly in the city, and then affects the participation of community citizens and the accessibility of community health services; 3) Housing: Good or bad housing conditions are one of the decisive factors for safety and health. There is a link between the quality of life of older persons and the impact of suitable accommodation and access to community and social services on their independence; 4) Social participation: social participation and social support in life are closely linked to good health, and participation in collective leisure, social, cultural and spiritual activities with the family enables the elderly to prove their abilities. Enjoy respect and esteem and maintain or establish a relationship of mutual help and concern; 5) Respect and social inclusion: Many elderly people feel that on the one hand, they are concerned and recognized by the society, on the other hand, the society and family seem to lack some deep concern and services for the elderly. This conflict is examined from the perspective of social variability and moral norms of human behavior. The lack of communication between the elderly and their children and the general lack of knowledge about the elderly are the root causes of this conflict; 6) Community participation and employment: a society that respects the elderly should be able to provide opportunities for the elderly to continue to contribute to society through some paid or unpaid work. Then they will have a place in the political process of society; 7) Communication and information: In the cities of developing countries, where the majority of older persons rely on very few public media, mainly television, radio and newspapers, the rapid development of information and communication technologies has been welcomed as

¹http://www.who.int/ageing/age_friendly_cities_guide/zh/

a useful tool but has also been criticized as a means of social exclusion. We should focus on the accessibility of information for the elderly; 8) Community support and health services: In the community, health and support services are the key to maintaining health and independence. Most elders everywhere believe that the cost of health care is too high, and they have always wanted affordable health care services.

The first three categories are related to building an comfort environment of the city, which directly affects the confidence of the elderly in living in the community. Security of life, protection from social exclusion and isolation are all affected by the built environment. The next three categories are related to the social environment of cities, including respect and social inclusion, community participation and employment. The last two areas are related to the level of health and social services, that is, whether the elderly can easily obtain appropriate information and service arrangements, and whether the elderly can afford the cost of services.

According to the theory and measures of healthy aging of the World Health Organization, this study is based on the above population development and policy background of China and Guangzhou, according to the four aspects mentioned in the framework of healthy aging, to build Guangzhou into an age-friendly city. It also explores the development model of Nansha Demonstration Zone for Healthy Aging and Livable Aging in Greater Bay Area District of Guangdong, Hong Kong and Macao, and then carries out the construction of healthy and age-friendly communities in Guangzhou.

III. Method Design and Data Collection

(1) The use of a mix of methods in baseline studies

In order to make the practice of building livable and environment-friendly cities for the elderly in Guangzhou more grounded and scientific, the research team selected Liwan, Yuexiu, Tianhe and Nansha, four districts with their own characteristics and representativeness, from the 11 administrative districts of Guangzhou as the research points, and then randomly selected two streets in each district. Subsequently, according to the list of residents, the neighborhood committee, about 50 elderly residents were randomly selected from each street to participate in the questionnaire interview. According to this method, we finally collected 409 valid questionnaires. In order to listen to more specific opinions, we selected about 10 residents from each of the eight streets to participate in the focus interview group, and the participants discussed and answered questions according to the eight areas of age-friendly. We have collected more views and suggestions from the elderly residents. In order to have a more comprehensive understanding of the current situation of Guangzhou's construction of age-friendly communities, 35 street workers and social workers from four districts were mobilized to participate in the consultation meeting, which took one and a half years to complete the questionnaire survey and related data analysis.

This study uses a mixed research method, which includes quantitative and qualitative research data collection. A total of 409 valid questionnaires were collected, 8 focus interview groups with 82 elderly residents were completed, and 3 consultation meetings with 35 service providers and some researchers were completed. The first two parts aims to collect the opinions of the elderly residents on the construction of Guangzhou's age-friendly city, and the last part aims to understand the views of different stakeholders on related issues.

1. Questionnaire survey

On the quantitative side, the prototype questionnaire of this study comes from the English version of the baseline survey of elderly friendly cities in London, Canada, in 2014.

Professor Zhang Qing, the leader of this research team, as a visiting scholar at the University of Calgary, Canada, worked with the research team to translate the English version of the questionnaire into Chinese version, and in response to the local characteristics of Guangzhou. The title has been adjusted accordingly.

(1) Participants and sampling method

Participants came from eight randomly selected streets, one from each of the four selected districts. Each neighborhood committee randomly selects about 50 residents from the list of elderly residents, so this study uses systematic sampling. A total of 412 questionnaires were collected, of which 409 were valid.

(2) Measurement method

In this questionnaire survey, the interviewers asked the interviewees to improve the response rate, taking into account that some elderly people have difficulties in reading the questionnaire. The questionnaire consists of the following three parts:

a) Basic personal information

This section includes basic personal information such as age, gender, marital status, housing ownership, housing situation, who they live with, education level, self-assessment of income, employment and so on. It also includes participants' self-assessment of their physical and mental conditions.

b) Assess the age-friendliness of the community

In terms of questionnaire design, although the original English questionnaire used in London scored five scales for each question, in Guangzhou questionnaire, in order to improve efficiency and let the elderly residents express more distinct attitudes, the research team reduced the scoring scale to three. The three scoring scales are 3 points for excellent, 2 points for good and 1 point for poor. The research team also added and deleted some topics according to the situation in Guangzhou, and finally formed a total of 69 topics in eight categories, and another two topics were self-evaluation of the degree of aging friendliness in their own communities and cities.

c) Masochistic Risk Assessment (Supplementary Questionnaire)

Fourteen true-false questions were included, the first 12 of which were translated from the Vulnerability to Abuse Screening Scale (VASS). Finally, according to the situation in Guangzhou, two questions were added to ask the elderly about their views on social security and risk assessment. In the original English version, it is a self-filled questionnaire, but it is also asked by the interviewer here. May be due to cultural or personal privacy considerations, the abandonment of this part of the question is higher than that of the previous part.

2. Focus interview group

In terms of qualitative data collection, this study adopts the form of focus interview group and consultation meeting with the participation of community workers. The interview process is mainly based on the data of the elderly residents' ratings on each topic obtained from the quantitative research. The participants are asked questions, guided discussions and listened to their suggestions on the issues. At the end of this paper, the guiding questions of the focus interview group inquiry process will be attached. In order to facilitate sampling, the neighborhood committee selected the elderly residents who were more active in community activities to participate in the focus group discussion.

3. Consultation meetings with the participation of service providers

The main process of this meeting is to: 1) present the findings of the survey and core group discussion, 2) discuss the findings, and 3) discuss the implications and recommendations related to the findings. The objectives are: 1) to inform service providers about the issues that elders are concerned about in age-friendly cities, as well as their opinions and grievances; 2) give the service provider the opportunity to explain and clarify, understand the reasons for the elderly's dissatisfaction or misunderstanding, and evaluate the existing services; 3) Combining with the opinions of the elderly, we will work with service providers to make suggestions, so that researchers can understand which aspects can lead to improvement and the relevant departments involved in the improvement. Three meetings were eventually held in four districts. A total of 35 social workers, street workers, university staff and related enterprises participated in the consultation symposium.

4. China-Canada International Symposium on Healthy Aging

This study has carried out continuous research by holding a series of joint international seminars between China and Canada on the construction of age-friendly cities. Each seminar invites about 50 scholars from the University of Calgary, Canada, government officials and representatives of non-profit organizations from the Department of Age-friendly Business of the Calgary Municipal Government, as well as research institutes, government officials and community service personnel engaged in the cause of aging in Guangzhou and Hong Kong to participate in a series of international seminars related to the construction of age-friendly cities. This project adopts the method of co-design, which is a user-centered method to promote community participation, that is, to gather designers and potential service users to design and implement together, so as to gather the opinions of different stakeholders (Sanders & Stappers, 2008). This method consists of three steps: Understand (collect relevant information), Design (propose and discuss ideas together), and implement (implement the ideas discussed) (Winge et al., 2017). According to the guidance of this method, this study will combine the data collected from the questionnaire survey, and let the participating scholars and representatives hold group discussions on these data to discuss how to promote the development of healthy aging services. After that, the research team will summarize and refer to their opinions to build a development model for promoting the construction of a healthy and age-friendly city in Guangzhou. At present, we have successfully held five international seminars on the construction of age-friendly cities in China and Canada. In recent years, our research group has continuously deepened the research on the construction of age-friendly cities in the exchange and reference between China and Canada.

According to the content and project of the research plan, this project has been carried out step by step and orderly, and has undertaken a number of projects entrusted by the Office of Guangzhou Aging Committee during the research period. For example, the Report on the Development of Aging in Guangzhou in 2017 and the Handbook on the Data of the Elderly Population (Report), and the Report on the Development of Aging in Guangzhou in 2018 and the Handbook on the Data of the Elderly Population (Report). Research on the Construction of Livable Environment System for the Elderly in Guangzhou, and actively apply the research ideas and countermeasures to promote the construction of an age-friendly city in Guangzhou, and have achieved good research and application results. Professor Daniel W.L. Lai, Professor Christine Walsh, Associate Professor Jennifer Hewson (Faculty of Social Work, University of Calgary, Canada), and Professor Zhang Qing are the main member of the research group. Keynote speeches on this topic at domestic and international academic seminars were presented. July 23–27, 2017, San Francisco, USA Keynote speech at the 21th IAGG World Congress of Gerontology and Geriatrics: Age-Friendly Community Strategies: A research based approach adopted in Guangzhou,

China; October 19-21, 2017, Winnipeg, Manitoba, Canada Keynote speech at the 46th International Symposium on Annual Scientific and Educational Meeting of The Canadian Association: Understanding age friendliness from the Chinese cultural perspective; Toronto, Canada, August 8-10, 2018 Keynote speech at the 14th Global Conference on Aging Conference: Understanding age friendliness from a Chinese cultural Perspective: A case study of Guangzhou, China, has produced extensive and good international academic influence. Entering the new journey of the 14th Five-Year Plan can continue to make certain contributions to the promotion of active population aging.

IV. Observation, Analysis and Research Findings

(1) Regional characteristics and community research¹

From 2015 to 2019, the total registered population and the total elderly population in Guangzhou continued to grow, and the proportion of the elderly population in the registered population continued to increase, from 17.27% in 2015 to 18.40% in 2019. From 2015 to 2019, the proportion of the elderly population increased by 0.49, 0.27, 0.22 and 0.15 percentage points respectively. Guangzhou has an aging population². The growth rate of the proportion of the elderly population has slowed down. According to the situation of the elderly population of all ages, the elderly population aged 60-69 in Guangzhou in 2019 was 988100, an increase of 16900 compared with that in 2018 (971200), accounting for 56.30% of the total elderly population in the city. The elderly population aged 70-79 was 484300, an increase of 36200 over 2018 (448100), accounting for 27.60% of the city's elderly population. The elderly population aged 80-89 is 243600. Compared with 2018 (237 thousand and 300 people), it increased by 6 thousand and 300 people, accounting for 13.99% of the city's elderly population. The elderly population aged 90 and over was 39100, an increase of 0.3 million compared with 2018 (36100), accounting for 2.22% of the city's elderly population³.

Among the elderly population of all age groups in Guangzhou, the elderly population aged 70-79 showed a downward trend from 2015 to 2018, with a slight increase in 2019. The age group of 80-89 years old generally showed a downward trend from 2015 to 2019. After a slight increase in 2015-2018, the 60-69 age group fell back in 2019. The age group of 90 years and above is generally on the rise. The aging characteristics of people over 80 years old are significant in the overall aging population. Yuexiu, Haizhu, Liwan and other three old urban districts have aged population by more than 20% of its district's population. The number of elderly families (all family members are over 60 years old) reached 261500, accounting for 19.65% of the total elderly population. 112300 elderly people live alone, accounting for 8.4% of the total elderly population. In rural areas, there are more elderly families and elderly people living alone. The number of elderly people living alone in Huadu, Nansha and Zengcheng districts accounted for 47% of the total number of elderly people living alone in the city. Among the elderly population, the aging characteristics of people over 80 years old are significant (Guangzhou Working Committee on Aging, Guangzhou Civil Affairs Bureau, Guangzhou Statistical Bureau, 2018). Table 1 shows the four representative districts selected in this study:

¹<http://www.yanglao.com.cn/article/48222.html>

²Population aging: refers to the decrease in the number of young people and the increase in the number of elderly people in the dynamic process of proportional growth in the total population. China generally considered 60 years old as the starting age of elderly population.

³Data source: 2019 Guangzhou Aging Development Report and Elderly Population Data Manual.

The four representative districts selected of Guangzhou

The selected district	Characteristics	Two randomly selected streets in the district	
Liwan District	Old city (more than 20% aging)	Golden Flower Street	Fengyuan Street
Yuexiu district		Baiyun Street	Renmin Street
Nansha district	In 2012, it became a state-level new area, and in 2015, it became a free trade zone.	Nansha Street	Pearl River Street
Tianhe District	The district with the highest economic output value in the city	yuancun Street	Tian He Nan

Data source: 2019 Guangzhou Aging Development Report and Elderly Population Data Manual.

(2) Community observation findings

The researchers visited the community based on the questionnaire scores and the opinions of the elderly residents in the focus interview group. From the collected community images, most of the opinions of the elderly residents can be found in the first three areas of livable and environment-friendly environment for the elderly (public space and buildings, transportation, housing), and the imbalances in the development of various districts can also be found. If it becomes a problem in one district, it is not a problem in another district. For example, there is a lack of subway elevators and supporting public toilets in the old city, but there is no such problem in Nansha and Tianhe districts. For example, the per capita housing area is small, which is more serious in the old urban areas. Residents in Nansha District also encounter special traffic convenience problems because they are far away from the subway station. However, their evaluation of the convenience and safety of cycling in the community is much higher than that of the other three districts.

(3) Findings of questionnaire survey

1. Sampling and grouping method (according to four selected areas)

Participants by district. The following table (Table 2) shows the average ratings of the elderly residents in each district for the corresponding categories (those marked with asterisks are the categories with significant differences in ratings between districts). Elderly residents scored highest on the fifth category (respect and social inclusion), according to questionnaires and focus group interviews. They appreciated the behavior of young citizens in giving up their seats on public transport, and praised the service attitude of social workers and street workers on many occasions. Although they have a high opinion of neighborhood relations, when asked carefully, they think that there are few reliable friends and neighbors near their homes, and most of them just say hello. They also reflect that they do not have the opportunity to get along with their young neighbors, let alone trust them. Elderly residents have the lowest evaluation of community support and health services, and their worries mainly come from the fear that they will not be able to afford the related costs, and some home-based pension needs are not met, such as the current home-based pension door-to-door services, which are mainly provided to "five-insurance households". The general elderly residents can not enjoy it. Although Nansha District is trying to introduce it to the general elderly residents,

considering the absence of service standards, social work organizations are gradually finding it difficult to meet many different needs.

Table 2

**The average ratings of the elderly residents in four districts
for the corresponding categories**

District	Overall	Yuxiu District	Liwan District	Nansha District	Tianhe District
Public Space and Building	2.20	2.10	2.10	2.26	2.22
Transportation	2.20	2.12	2.12	2.22	2.23
Housing	2.05	1.98	1.98	2.14	2.04
Social Participation	2.18	2.19	2.19	2.29	2.07
Respect and social inclusion	2.41	2.32	2.32	2.51	2.37
Community participation and employment	2.02	2.00	2.00	2.07	1.93
Community and Information	20.60	2.07	2.07	2.06	1.96
Community support and health services	1.86	1.81	1.91	1.87	1.85

Data source: Questionnaire survey of the service demand of the elderly in Guangzhou under the background of the framework of Age-friendly cities.

2. Discovery (by age, gender, education level, etc.)

According to age groups, the youngest group scored lower than the other two groups in the third category (housing) and the eighth category (community support and health services), with the oldest group scoring the highest. The following table shows the age group (Table 3) and sex ratio (Table 4):

Different gender and education level did not show significant differences in the eight categories. However, in the last part of the questionnaire (elder abuse risk assessment),

Table 3

Findings of questionnaire survey of the age group

Age group	44–59 (1)	60–66 (2)	67–89 (3)
Percentage	34.5%	32.3%	33.3%

Data source: Questionnaire survey of the service demand of the elderly in Guangzhou under the background of the framework of Age-friendly cities.

Table 4

Findings of questionnaire survey of the sex ratio

Gender	Male	Female	Not filled in
Number of respondents participating in the questionnaire	90	288	31
Percentage	22.0%	70.4%	7.6%

Data source: Questionnaire survey of the service demand of the elderly in Guangzhou under the background of the framework of Age-friendly cities.

the education level was negatively correlated with the total score of this part, that is, the higher the education level, the lower the abuse risk score.

(4) Findings of Focus Interview Group

This section serves as a warm-up question for the beginning of the focus interview group, but it can see what the elders think about themselves and their elders. Some elders think that “old is useless”, some think that “the brain will be strange, the individual will be crazy”, some think that “old is also wonderful, can also do a lot of things”. Most participants will assess older age from a functional point of view, and they define and find meaning for these functions.

V. Ideas and Countermeasures for the Construction of Aged Friendly Cities

The construction of age-friendly cities should comprehensively deepen the reform of community home-based pension and other fields, innovate and improve the service mechanism for the elderly, speed up the construction of social welfare and security system for the elderly, improve the medical and health network, improve the social pension service system, strengthen the construction of livable environment for the aged population, develop the related industry, and promote the social participation of the elderly; Protect the rights and interests of the elderly, enhance the sense of acquisition and happiness of the elderly in the development of co-construction and sharing, and form a new pattern of active response to population aging under the leadership of the Party Committee, government responsibility, social participation and national action. Specifically, there are the following aspects:

(1) Optimizing the functions of relevant government departments for the work of ageing and promoting the reform of local institutions for the work of ageing

Population aging “concerns the overall development of the country and the well-being of the people”. Through institutional reform and functional optimization, especially the adjustment of internal institutions and the strengthening of the coordination function of the Office for the Aged, local governments have autonomy in setting up institutions for the aged at or below the provincial level, and can explore and innovate according to local conditions. According to the requirements of the national and provincial institutional reform plans, combining with the needs of Guangzhou’s aging work, practical plans should be formulated, and to strengthen the functions of the Party’s departments in the member units of the Committee on aging, optimize the functions of the relevant departments of aging work, further promote the reform of local aging work institutions, and strive to shift the focus downward to effectively strengthen the aging work in urban and rural communities. Altogether consolidate the national policy corresponding to the aging of the population really take root and bear fruit at the grass-roots level.

(2) Multi-level joint efforts to promote the cause of ageing and the construction of the old-age pension system, and to build a government-led, social and market participation in the service system for the aged

1. Joint efforts of the government and the market. While emphasizing the responsibilities of the government, the construction of the cause of aging and the pension system

should pay more attention to the role of market mechanism and social forces. We should encourage social forces to participate in the reform of public pension institutions and support social forces to set up pension institutions and nursing homes. We will vigorously develop pension service enterprises. To cultivate a number of leading enterprises with different characteristics, management norms and service standards, to achieve more diversified pension services and product suppliers, through the joint efforts of the government and social forces, complementary advantages, so as to enrich service content and improve service quality.

2. Inter-industry resultant force. The construction of the pension system focuses on the extension of the industrial chain and cross-border mixed development, and proposes to support the integration and development of the pension service industry with health, health, tourism, culture, fitness, leisure and other industries, so as to enrich the new model and new format of the pension service industry. Enterprises such as finance, real estate and the Internet are encouraged to enter the pension service industry. Establish and improve the cooperation mechanism between medical and health institutions and pension institutions, promote the extension and integration of pension related industries, increase the market space and profitability of pension service industry, and form a joint force among industries, so as to improve quality and efficiency, and realize the healthy and sustainable development of pension related industries.

3. Form a joint force among government departments. From the perspective of the government, the cause of ageing involves macro-policies such as retirement and social security, involving medical and health care, financial and insurance systems, and closely related to urban planning and land supply. The development of the cause of ageing and the realization of the goal of building a pension system need to solve many practical problems, which cannot be solved by relying solely on market forces. Therefore, we must give full play to the leading core role of Party committees at all levels in overall situation and coordination of all parties, strengthen the main responsibility of governments and departments at all levels in implementing the plan, clarify the role of the government in the old-age service system, and build a government-led, social and market participation pattern of the old-age service system.

(3) The leading position and development suggestions of Guangzhou's healthy aging service system in Guangdong-Hong Kong-Macao Greater Bay Area

1. Guangzhou builds a model city for healthy aging and livability in Guangdong-Hong Kong-Macao Greater Bay Area

The construction of healthy aging service system in Guangdong-Hong Kong-Macao Greater Bay Area is an important guarantee for the realization of livable, professional and tourist international first-class Bay Area, which requires the central cities in the forefront of the development of the cause of aging to play a leading role in demonstration and driving effect, and to push forward the cause of healthy aging in Guangdong-Hong Kong-Macao Greater Bay Area. As the capital city of Guangdong Province, Guangzhou is backed by the Pearl River Delta and faces Hong Kong and Macao. Connecting internal and external resources is the focus of Guangzhou's economic and service industry development and is also in line with the concept of Guangdong-Hong Kong-Macao Greater Bay Area. The Guangdong-Hong Kong-Macao Greater Bay Area emphasizes regional integration and development, not only to build urban agglomerations, but also to cross the "one country, two systems" and break the spatial pattern. It provides us with the conditions for regional integration and development. Accordingly, the positioning of Guangzhou's healthy aging service system in the Greater Bay Area District of Guangdong, Hong Kong and Macao should be positioned as a model city for healthy aging and livability, and its development strategy and practical application can be carried out by declaring the certification of the

World Health Organization's global network of cities and communities caring for the elderly, carrying out the construction of healthy aging friendly cities, and promoting them. We will carry out in-depth cooperation with Hong Kong and Macao at all levels, build a demonstration zone for comprehensive cooperation between Guangdong, Hong Kong and Macao in Nansha, Guangzhou, realize the development of cross-border cooperation in pension services, focus on building an international metropolis with a livable environment for the elderly, and promote the coordinated and high-quality development of the cause of healthy aging in the Greater Bay Area District of Guangdong, Hong Kong, and Macao.

2. Guangzhou joined the WHO Network of Friendly Cities for the Aged

The WHO Age Friendly Cities Network (AFCN) is an accreditation system for cities and communities around the world to share experiences and learn from each other in response to population ageing. What all members of the network have in common is their desire and commitment to create urban physical and social environments that promote healthy active ageing and a high quality of life for their respective older residents. Through the network, who provides a global platform for information exchange and mutual support through the sharing of experiences. In addition, WHO also provides guidance and promotes knowledge on how to assess the extent to which a city or community is age-friendly, how to integrate ageing into urban planning and how to create age-friendly urban environments. It is suggested that Guangzhou join the who network of aging friendly cities, actively exert China's important influence in the field of international aging and deepen international cooperation. To provide a framework and blueprint for the development of the national cause of ageing and the construction of age-friendly cities; Joining this global network of age-friendly cities can enhance Guangzhou's international visibility, promote social integration and enhance cross-generational connectivity, thus promoting Guangzhou's central position in the development of healthy aging in the Great Bay Area of Guangdong, Hong Kong and Macao. Improve the hardware environment and facilities to promote home-based care for the aged. Reduce the pressure of waiting time for elderly homes (long-term homes), improve the environment of Guangzhou and promote social harmony; To provide more opportunities for the elderly and pension service institutions in the Greater Bay Area District of Guangdong, Hong Kong and Macao, especially those in Hong Kong and Macao, to participate more easily in social affairs and enhance the accessibility of community, health and other social services. Improve the quality of life and happiness of the elderly.

3. Take the lead in exploring the establishment of the Guangdong-Hong Kong-Macao Greater Bay Area Nansha Free Trade Zone Health Aging Service Demonstration Zone

Guangzhou can pilot the establishment of a Guangdong-Hong Kong-Macao Greater Bay Area health and aging service cooperation mechanism in the Nansha National Free Trade Zone. Nansha District, as the geographical center of the Great Bay Area of Guangdong, Hong Kong and Macao, has become a national-level new area and free trade zone with the support of the national policy and strategy, and the only urban sub-center in Guangzhou, is facing new development opportunities when the country puts forward the development strategy of the Great Bay Area of Guangdong, Hong Kong and Macao. In the three-year action plan of Guangdong Province to promote the construction of the Great Bay Area of Guangdong, Hong Kong and Macao, Nansha in Guangzhou is positioned as a demonstration area of comprehensive cooperation in the Great Bay Area of Guangdong, Hong Kong and Macao. Build a demonstration area for the construction of a healthy and livable city for the elderly in Nansha, Guangdong-Hong Kong-Macao Greater Bay Area. As the core city of the first echelon in the Greater Bay Area

District of Guangdong, Hong Kong and Macao, Guangzhou can build an innovative service development model for healthy aging cities by introducing innovative experience and resources of pension services in Hong Kong and Macao. Open up the channels for social forces and individuals to participate in pension services, so as to improve the circulation of resources in Guangdong, Hong Kong and Macao Greater Bay Area.

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