

Exploring the Causes and Policy Explanations for the Imbalance between Supply and Demand of Professional Healthcare Personnel in Grassroots Elderly Care Institutions in Qingdao

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Abstract:

Current pension agency for with the deepening of aging degree and “combining medical and nursing care” policy response has many problems, widespread phenomenon is professional staff pension agency imbalance between supply and demand. In this study, the causes of this problem and its policy explanation are analyzed by using the in-depth interview method of qualitative research. Through the interviews with nurses, medical staff and management personnel in the local pension institutions in Qingdao, it is found that the causes of the imbalance between the supply and demand of professional medical staff mainly include insufficient number of medical staff, inconsistency between workload and income, tension between doctors and patients, and operation difficulties of pension institutions. The key to solving the problem is to promote cooperation between enterprises and schools, set up unified posts, improve the recruitment system, increase government subsidies and support, and formulate and implement targeted policies and measures to form a reasonable and efficient medical and nursing combination system.

Keywords: Elderly care institutions, integrated medical and elderly care, Elderly care services, policy tools.

1. Introduction

In the past decade, China’s demographic composition has experienced significant transformations, with the escalating aging trend posing an increasingly urgent challenge. According to the seventh national census data compiled by the Chinese government, as of 2021, the population of people over 60 years old in the mainland of China has reached 264 million, accounting for 18.7% of the total population, with the population of people over 65 years old reaching 190 million, accounting for 13.5% of the total population [1]. In response to this situation, the General Office of the State Council issued the “2011-2015 Plan for Constructing Social Elderly Care Service System” and the “2011-2015 Plan for Constructing Community Service System,” demonstrating an early emphasis on addressing the rehabilitation and nursing care needs of elderly individuals, although these policies did not explicitly address healthcare and nursing care integration within

their content. Subsequently, a series of measures were sequentially implemented to bolster the development of a comprehensive healthcare and nursing care system for elderly individuals. By July 2024, the most recent directive issued by the Chinese authorities is the “Guidelines for Home and Community Health and Nursing Services (for Trial Implementation)” released in 2023, aimed at enhancing the implementation of policies related to elderly health and nursing care. The integration of medical care, nursing care, rehabilitation, and fundamental elderly care facilities, coupled with daily living support and accessible activities, constitutes an integrated model of elderly care. This approach effectively caters to the health and care requirements of the elderly while mitigating their financial risks. It presents significant advantages in addressing the challenges posed by an aging society, establishing a nexus between medical insurance and elderly care insurance, and ensuring service continuity and economic sustainability. Nursing homes are confronted with a dearth of medical

and nursing professionals in the development of integrated healthcare and nursing services. In her study on the development of an elderly care model with integrated healthcare and nursing services in Shandong Province, scholar Li Yutong highlighted that due to constraints within the medical system management and other factors, there exists a scarcity of professional talent for integrated healthcare and nursing services in nursing homes operating and developing in Shandong Province [2]. In response to the shortage of healthcare professionals, some scholars have investigated the current situation of healthcare professionals in nursing homes. Zhao Minjie, Wang Fang, and others have highlighted that medical staff at a private nursing home in Qingdao currently receive only a basic salary, lack a performance evaluation system and incentive mechanism, and face limited career advancement opportunities. Their salaries are lower than those of workers in general hospitals [3].

However, the current literature still poses a challenge in terms of research breadth. Most domestic studies focus on the present status and barriers encountered in developing medical and nursing services within nursing homes, often addressing general issues without specific emphasis. This approach does not effectively contribute to tackling the challenges faced by nursing homes in improving their medical and nursing services.

Therefore, this study aims to examine factors contributing to imbalances between supply and demand of professional medical personnel within local eldercare facilities in Qingdao. To achieve this objective, the research team will employ qualitative research methodologies including comprehensive interviews with frontline workers, healthcare professionals, and facility administrators. The primary objectives are twofold: enhancing empirical investigations into the effects of integrating health services with nursing practices while providing evidence-based policy suggestions for local authorities and pertinent organizations aimed at optimizing these strategies.

2. Design of the Interviews

The research method of this study is the in-depth interview method of qualitative research. This research method was chosen because of its ability to explore complex issues in depth, and interviews can reveal potential causes and details of the imbalance between the supply and demand of healthcare workers in primary care organizations. In addition, the interview methodology is highly flexible, allowing the researcher to instantly adapt the questions to respondents' answers in order to explore topics of interest in greater depth.

2.1 Selection of Interviewees

The interviewees selected for this study were staff members of the nursing facility, on-staff healthcare workers, and leaders of the facility management.

Nursing institutions staff are the front-line personnel who have direct contact with the elderly. These staff interviews aimed to understand the specifics of daily work, the actual needs in the care process, and the challenges faced in the implementation of the integrated medical treatment and elderly support policy. Through the perspective of the staff, this study can provide a deeper understanding of the actual staffing situation and working environment of healthcare workers.

In-service medical staff, including doctors, nurses, rehabilitation therapists and other professionals who provide medical services in nursing homes. As the main body of direct care services, their work experience and job satisfaction are important aspects of understanding the supply and demand situation. Healthcare professionals can provide first-hand information about career development, job stress, and workplace challenges. In addition, feedback from healthcare professionals will be useful in understanding how healthcare resources can be better allocated and utilized to meet the health needs of older people in the course of policy implementation.

The management leaders of the senior living organization, including the director and department heads, are responsible for the strategic planning and resource allocation of the whole organization. The selection of these interviewees aims to gain a deeper understanding of the institution's strategies and decision-making basis in terms of staff recruitment, training, and management. Their insights can reveal the practical difficulties encountered by the organizations in implementing the integrated medical treatment and elderly support policy, as well as their actual needs and suggestions for the policy. Feedback from the management also helps to understand the implementation and effectiveness of the policy when it is put into practice at the grassroots level.

2.2 Design of the Interview Outline

The interview outline was developed on the basis of the literature review and pre-survey. Different types of outlines were designed for different types of subjects, such as the supply and demand of medical staff, work difficulties and job satisfaction. The questions in the outline were open-ended and designed to encourage respondents to elaborate on their views. Each question was carefully designed to avoid leading, while ensuring that the information was obtained with depth and breadth.

2.3 Choice of Interview Format

This study chose to use semi-structured interviews as the main data collection method. This method was chosen because it allows respondents to freely express their personal opinions and experiences while providing structured questions, which helps to gain a deeper understanding of the complex status quo of the supply and demand of medical staff in grassroots nursing homes.

3. The Interview Process

3.1 Preparation before the Interview

Before the interview, the interviewee was contacted to confirm the interview time and location, and the purpose and content of the interview were informed to ensure that the interviewee understood and was willing to participate. To protect the privacy of interviewees, all interviews were recorded with consent.

3.2 Access to Information

Each interview lasts 30-60 minutes, depending on the depth of the interviewee’s answers. During the interview process, the researcher will strictly follow the outline, pay

attention to the interviewees’ emotions, and flexibly adjust the order and content of the interview questions in a timely manner, so as to ensure the fluency of the interview and the completeness of the information. The interview process will be recorded in a timely manner after each interview.

3.3 Collation and Analysis

After the data collection is completed, it will be sorted and analyzed in a timely manner. First, the interview recordings will be transcribed and integrated into a transcript document. Next, all the interview materials will be carefully read and the data will be classified and interpreted. In addition, all the interviewees’ information will be anonymized to ensure the confidentiality of the data. Finally, the interview content will be analyzed and written.

4. Result

4.1 Basic Information about the Interviewee

The main interviewees of this study include the staff of nursing institutions, medical professionals and leaders of nursing institutions. The specific interviewees are as follows(Table 1).

Table 1. Participant Information Form

Interviewee	Gender	Age (years)	Length of stay (years)
The recipient of care	man	86	26
The recipient of care	man	92	35
The recipient of care	woman	64	8
The recipient of care	woman	53	4
Caregiver A	man	26	2
Caregiver B	man	32	4
Caregiver C	woman	46	3
Caregiver D	woman	52	2
Head of nursing	woman	35	8
Deputy Director of Nursing	man	39	10
Head of Nursing	man	48	18

4.2 Problems Encountered by Staff Working in Primary Care Institutions

4.2.1 Insufficient number of medical staff and high workload

During the interviews, some interviewees mentioned that there was a serious imbalance in the ratio of medical and nursing staff to the number of beds, and that the staff had to take up a larger number of elderly care tasks, which

results in high workload. The number of medical staff was barely sufficient to meet basic needs, and medical staff are shared with supporting hospitals, making one-on-one or two-on-one care impossible. In addition, irregular working hours and frequent recall to work during breaks further aggravate the workload of health care workers.

4.2.2 Mismatch between workload and income and lack of incentives

In the interviews, carers generally reflected that their workload was high, but their income was not proportional to the effort they made, their pay was poorly matched and they did not have a staff establishment. This not only leads to greater staff turnover, but also affects their work enthusiasm. Most elderly care institutions lack effective incentive policies. Although some institutions have adopted incentive mechanisms and organized recreational activities to improve doctor-patient relations and the working conditions of their staff, it is still difficult to solve the fundamental problems.

4.2.3 Tension between doctors and patients and low social acceptance

During the interviews, respondents generally reflected that the doctor-patient relationship is difficult to handle and is prone to discrimination. This phenomenon is not conducive to increasing the motivation of healthcare workers and also contributes to the lack of social recognition of the profession. The low social status of health care professionals in grass-roots elderly care institutions will result in many potential professionals being reluctant to enter the profession, further aggravating the imbalance between supply and demand.

4.2.4 Institutions for the elderly have operational difficulties and are underfunded

The start-up funds for elderly institutions mainly come from individuals' self-financing and government grants, but the vast majority of institutions are still facing operational pressure and financial difficulties. The interview mentioned that although more than half of the institutions received government subsidies, these subsidies were mostly bed subsidies, operating subsidies and construction subsidies, which could not completely solve the institutions' funding problems. At the same time, elderly organizations have to cope with frequent inspections by third-party regulators, which increase operating costs and further exacerbate financial constraints.

4.3 Improvement Measures and Suggestions

4.3.1 Promote cooperation between enterprises and schools

Some interviewees suggested that the problem of shortage of professional medical and nursing staff in elderly organizations could be effectively alleviated through co-operation between enterprises and schools to achieve resource sharing and complementarity of strengths. It is possible to co-operate with medical schools to set up internship bases, which can provide practical opportunities for students and alleviate the pressure on the human resources of the

organizations.

4.3.2 Set up unified staffing positions and improve recruitment system

During the interview, some respondents suggested coordinating the establishment of a unified job setup and improving the recruitment system to attract more professional talents into the elderly care industry. This measure is an important means to attract professional talents into the elderly care industry. These measures can not only increase the stability of nursing staff, but also improve the quality of care. It will provide better security for the position, which can be able to attract more professionals and retain them, further slowing down the imbalance between supply and demand.

4.3.3 Increase government subsidies and financial support

The government should increase subsidies to elderly institutions, especially operating subsidies and construction subsidies, to help institutions resolve their financial difficulties. At the same time, the supervision of elderly institutions should be simplified and rationalized to enhance their operational efficiency and service quality. Such policy support is conducive to significantly improving the financial position of the organizations and attracting more professionals to join the organizations, thereby alleviating the imbalance between supply and demand.

5. Discussion

5.1 Analysis on the Causes of Imbalance between Supply and Demand of Medical Professionals

5.1.1 Medical staff shortage, high work intensity

In elderly care facilities, residents typically require high-intensity nursing and medical services. Scholars have pointed out that elderly individuals residing in such facilities have a rigid demand for medical services. According to their surveys, all elderly residents in care facilities have at least one chronic illness. Multiple studies have indicated a positive correlation between increasing age and the prevalence of chronic diseases in older adults. As age progresses, the variety of chronic diseases that elderly individuals experience also increases, and with the rising prevalence of these diseases, the demand for medical services correspondingly escalates [4]. Thus, it is evident that healthcare personnel in elderly care facilities need to pay closer attention to the health status of elderly residents. It is necessary to not only perform routine caregiving tasks effectively but also actively promote other medical ser-

vices that require greater attention, in order to better meet the medical service needs of elderly individuals in these facilities.

In the interviews, some respondents mentioned that the ratio of healthcare staff to bed numbers is severely imbalanced, with a shortage of healthcare professionals in grassroots elderly care facilities. The demand for medical services among elderly residents is high and the range of tasks is extensive, forcing the existing staff to take on additional responsibilities, which further increases their workload. Moreover, irregular working hours, frequent overtime, and the need to return to work during break time have all contributed to an increased burden and pressure on the healthcare personnel.

5.1.2 Relevant policies are difficult to land, policy implementation deviation

The policy support for the integration of medical and elderly care began with the release of the “State Council Opinions on Accelerating the Development of the Elderly Care Service Industry” in 2013. However, longstanding issues such as policy implementation deviations and difficulties in translating top-level designs into practice have persisted. Among the 16 State Council documents related to medical-elderly care integration, there is almost no content addressing the improvement of medical staff’s remuneration or working conditions. Issues mentioned in interviews include mismatches between workload and income, lack of formal positions, irregular working hours, and work during statutory rest periods. One reason for these issues is that existing central elderly care policies have not directly resulted in an increase in grassroots personnel, and labor-related laws and regulations have not been effectively implemented.

The root of these problems can be traced to several key points in policy implementation. Firstly, despite a series of supportive documents for the integration of medical and elderly care, various implementation deviations occur at the local government level. The uneven fiscal strength and resource allocation among local governments lead to inconsistent support for medical-elderly care policies, making it difficult for some regions to effectively advance related measures. Secondly, the disconnect between top-level design and grassroots needs is a significant source of issues. The lack of content in policy documents regarding the improvement of medical staff’s remuneration and working conditions reflects insufficient consideration of grassroots operational realities during the policy formulation process. The implementation of medical-elderly care services relies heavily on the support and participation of grassroots medical staff, yet the lack of

specific policies to attract and stabilize this group results in high turnover and significant work pressure. Finally, the enforcement and protection of laws and regulations have not kept pace with policy advancements. Although relevant legal documents provide protection for workers’ rights, in practice, local enforcement and supervisory levels vary, leading to unresolved issues regarding the working conditions and remuneration of some grassroots medical staff.

5.1.3 Tense doctor-patient relations, low social recognition

The tensivity in doctor-patient relationships is a prevalent and significant issue in contemporary society, arising from multiple factors. Firstly, the high workload and stress levels experienced by medical staff in elderly care institutions can lead to emotional fluctuations, which in turn affect communication and interaction between the elderly and their families. Scholars have noted that elderly individuals and their families are prone to feelings of anxiety, unease, and fear, and they have a pressing need to understand the diseases and related treatment methods, as well as to receive care and respect [5]. However, issues such as a lack of communication with healthcare professionals due to staff shortages can lead to and exacerbate distrust towards medical staff, and even foster hostility towards healthcare workers or elderly care institutions, adversely affecting the development of integrated medical and elderly care systems. Additionally, the limited service quality and environmental conditions of elderly care institutions can easily lead to dissatisfaction and complaints from elderly individuals and their families. Scholars have pointed out that only about 3% of medical disputes are caused by medical accidents, while 80% of medical disputes are due to the quality of medical services [6]. If the medical facilities in elderly care institutions are not scientifically and effectively improved, and the medical and residential conditions are limited, trust in these institutions may decrease among the elderly and their families. This could further lead to negative sentiments towards healthcare staff, including doubts and accusations, adversely affecting the establishment of a positive doctor-patient relationship. Lastly, insufficient social recognition and support for elderly care institutions may also result in healthcare professionals frequently facing misunderstandings and criticisms from patients and their families.

The current issues of insufficient recognition and support for nursing homes and low levels of respect for their healthcare staff are related to contemporary cultural and social values. Many people view nursing home care work as low-skilled and low-value, merely involving daily

assistance with elderly individuals and performing tasks that seem unprofessional, labor-intensive, and dirty. As a result, healthcare professionals working in these institutions are often placed in a lower position within the existing social evaluation system, with their social status and general income levels typically being far below those of healthcare professionals in hospitals. Additionally, the lack of media coverage and societal discourse on elderly care work has contributed to the insufficient recognition and respect for this profession, as the value and contributions of the industry are not adequately highlighted.

5.2 Improvement Measures and Suggestions

5.2.1 Enhance cooperation and service methods to boost supply body enthusiasm and promote transformation

The research team will encourage primary and secondary hospitals and community health service centers to transform into “combination of medical and nursing care” elderly care institutions to provide services directly. Large elderly care institutions can set up medical institutions if they meet the conditions, small and incomplete community health services can set up medical clinics, and can also cooperate with nearby hospitals. Small scale and developed surrounding community service network, can share medical resources, establish a two-way referral mechanism.

5.2.2 Set personalized service content according to the needs of the elderly at different care levels

An expert committee will be set up by multiple departments to evaluate and determine the service location and content. Elderly people who are healthy, free from disease or chronic diseases and able to take care of themselves shall be given priority to life care and basic public health services. The elderly with acute attacks are first transferred to a large hospital, and their condition is stable and then transferred to a “combination of medical and nursing” institution. Elderly people who are disabled, semi-disabled and suffering from chronic diseases should be based on conventional elderly care services and focus on medical services. The “combination of medical care and nursing” type elderly care institutions can be set up in different areas to adopt elderly people with different self-care abilities.

5.2.3 Improve the government management mechanism and implement preferential measures

The government should integrate multiple subjects, formulate an overall plan for elderly care services, and incorporate the “combination of medical and nursing

care” model into relevant planning. The research team will improve the implementation of preferential policies, establish special funds or foundations, encourage bank credit support, clarify land preferential standards, and refine tax policies. Government functional departments should strengthen horizontal ties, clarify the nature of their institutions, formulate and improve standards and norms, establish assessment and evaluation systems, and set access and exit mechanisms. The establishment of a standardized payment mechanism, integrate funds, carry out a pilot long-term care insurance system, and include related expenses in the scope of reimbursement. Insurance premiums for the retired and disabled are drawn from the medical insurance fund and subsidized by the government, and individuals and units do not pay. “Combination of medical and nursing” institutions may be approved as designated units of medical insurance and long-term care insurance.

5.3 Limitations

Due to the limited size of research team, the research team employed random sampling for sample selection and conducted interviews exclusively in selected nursing homes in Qingdao. Consequently, the majority of the sample data originated from Qingdao City, which lacks nationwide comparative data. This limitation poses challenges for generalizing findings and may give rise to issues such as “sample bias” or “selection bias,” potentially impeding the accurate representation of the national situation by study conclusions. As a result, this impedes the provision of reference and guidance for investigating imbalances between supply and demand for professional healthcare personnel in grassroots elderly care institutions in Qingdao City.

Due to the time constraints of a two-month research period, the sample size may introduce bias into the results. To address this limitation in future studies, the research team could employ a longitudinal study approach involving repeated interviews over time to enhance both the breadth and depth of the sample. This method would bolster the credibility of research findings and enable to expand the interview scope beyond Qingdao City, thereby improving the generalizability of the sample data for future studies.

6. Conclusion

Owing to the burgeoning elderly population, there has been a marked escalation in the demand for geriatric care services. Nevertheless, nursing homes have not witnessed a commensurate augmentation in financial backing and operational efficacy, leading to a dearth of proficient medical personnel. The existing policies are inadequate in attracting, training, and retaining proficient healthcare

professionals. The compensation and benefits fail to correspond with the workload, resulting in disproportionate remuneration for substantial workloads. Furthermore, the absence of an official stance has adverse effects on both the recruitment and retention of healthcare workers. Receiving insufficient social recognition for their contributions in elderly care leads to a diminished societal status for healthcare professionals, difficulties in managing doctor-patient interactions, and vulnerability to unfair treatment, all of which impact the attractiveness of the profession.

In response to these circumstances, it is advisable for the government to consider implementing more attractive policies, such as increasing the remuneration for healthcare professionals and reducing their working hours, in order to enhance the appeal of the profession. Utilizing fiscal subsidies, tax incentives, and other strategies should be prioritized to encourage the establishment and operation of nursing homes with a view to expanding the pool of skilled medical personnel. Furthermore, heightened government oversight over nursing homes should be emphasized to elevate service standards and improve the attractiveness of nursing services, thereby attracting more qualified medical professionals to enter this field.

The disparity in the availability of professional medical staff and the demand for their services at local elderly care facilities is influenced by various factors, necessitating collaborative efforts from governmental, societal, and market stakeholders. By providing policy guidance, optimizing resources, enhancing service quality, and refining supply-and-demand matching mechanisms, this imbalance can be effectively mitigated to support the positive growth of elderly care services.

This study conducted extensive interviews to identify the factors contributing to the disparity in supply and demand of professional medical personnel at local elderly care facilities in Qingdao. It provided policy justifications and insights, offering valuable guidance for the implementation of healthcare policies. Furthermore, it proposed specific strategies to address this imbalance, including enhancing

salary structures, establishing pathways for career advancement, improving working conditions, increasing policy support, and strengthening professional development programs. These recommendations are designed to attract and retain professional healthcare workers, enhance their job satisfaction and loyalty, and ultimately improve the quality of elderly care services. Current research focuses on local elderly care facilities in Qingdao City. Future studies could extend to other cities or regions, compare supply-demand imbalances across different areas, analyze the impact of geographical variations on these imbalances, and employ quantitative research methods to precisely measure the influence of each factor on the imbalance as well as their interactions.

Authors Contribution

All the authors contributed equally and their names were listed in alphabetical order.

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