

Current situation of health resources in private oral medical institutions

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Abstract: According to the current situation of oral health resources, based on various literature databases, the time period from January 2019 to now, more than 30 literatures were searched with the keywords of "private oral institutions", "private clinics" and "health resources", and the relevant literatures were sorted out and summarized, so as to promote the allocation of health resources in private oral health institutions in Xinjiang.

Keywords: Private dental clinic; Health resources; Configuration status

1. Introduction

Oral health is an important component and the foundation of general health [1], and is an essential element of general health at every stage of life. The World Health Organization lists oral health as one of the ten criteria for human health. Oral diseases not only affect the physiological functions such as oral chewing and pronunciation, but also are closely related to systemic diseases. For example, infections and inflammatory factors in the oral cavity can lead to or exacerbate chronic diseases such as cardiovascular diseases and diabetes. Studies have shown [2] that oral diseases share common risk factors with many chronic diseases. For example, excessive intake of foods high in sugar, fat, salt, and fiber is not only associated with oral diseases such as caries and periodontal disease, but also with coronary heart disease, stroke, diabetes, cancer, and obesity. According to the "Global Oral Health Report" released by the World Health Organization in November 2022, oral diseases are the most common non-communicable diseases. About 3.5 billion people in the world, or 45% of the global population, have oral diseases. However, many oral diseases can be prevented, and the best way out of oral diseases is prevention. However, due to the limited human, material and financial resources for preventive health care, the development of oral preventive health care in different regions of the world is very uneven. Globally, oral healthcare has not yet become a priority for healthcare systems [3]. The provision of basic oral health care services is essential to the strengthening of oral health care systems.

Oral health resources are an important part of China's health resources and an important indicator to evaluate the level of oral services in a region [4]. At present, the provision of dental services in China can be divided into two categories: public stomatological institutions and private stomatological institutions. The provision of dental services can be divided into four forms: stomatological specialized hospitals, stomatological departments of general hospitals, chain dental clinics and individual dental clinics. Private stomatological institutions are established by non-state-owned private and private capital investment. As a member of China's private medical institutions, private stomatological institutions play a key role in China's stomatological services. According to the study, by the end of 2018, there were 75,399 dental clinics in China, among which private clinics accounted for the highest proportion (69.8%), which was more than twice that of public hospitals (30.2%) [5], and the number of dentists was 171,587. There were 0.1673 practicing (assistant) physicians and 0.1551 registered nurses per 10 000 population, and the ratio of doctors and nurses was 1:0.93 [6]. By 2020, the total number of dental practitioners (assistant) physicians and nurses reached 278,000 [7], an increase of 106.4 thousand compared with 2018.

This review focuses on the status quo of health resources in private stomatological institutions.

2. Development status of domestic and foreign private stomatological institutions

2.1 Status quo of foreign private stomatological institutions

According to the Global Dental Human Resource Allocation Study [8], America and Europe are the only two regions that have two thirds (69%) of the world's dentists, while serving only 26% of the global population. By contrast, Africa accounts for only 1% of the world's dentists. Inequalities are more pronounced in the ratio of dentists to population, which is approximately 1:1400 in the Americas, over 1:40,000 in Africa, 1:1342 in Japan, and 1:122,003 in Nepal. In Riyadh, the capital of Saudi Arabia, the total number of dentists working under the jurisdiction of the Ministry of Health is only 654, while the number of dental doctors in private clinics is 3,111 [9], and compared with public hospitals, people's satisfaction with private clinics is 27% higher than that of public hospitals [10]. India has the second largest population in the world, and it is also the second largest producer of dental graduates. There are more dentists than many developed countries and a few developing countries [11]. Until 1980, India had only public dental institutions and no private dental institutions. Currently, there are more than 117 825 dentists in India, and the ratio of dentists to the population is 1:10,271. However, less than 5% of dental graduates work in government departments [12]. Private dental clinics in South Africa treat only about 16% of the population, but 90% of dentists are employed by private clinics [13]. In Japan, dental services are mainly provided by private dental clinics. As of 2018, there were 68,500 dental clinics in Japan [14] with a total of 120,068 (90.5%) dental hygienists, including part-time employees working in dental clinics. The average number of dental hygienists per clinic was 1.6 [15]. There are about 5,000 dentists and 400 dental nurses in Myanmar, and only about 1,000 dentists serve in government departments [16].

2.2 Status quo of domestic private stomatological institutions

The development history of private stomatology in China has been about 30 years. Before the founding of the People's Republic of China, some overseas talents returned to China to set up and open clinics, but the scale is relatively small. After the founding of the People's Republic of China, many stomatological hospitals across the country have adopted a public-private partnership model. With the major decision of reform and opening up, The State Council issued the "Guiding Opinions on the Reform of the Medical and Health System in Urban Areas" in 2000, domestic private dental institutions had laws to follow, and the private economy of all walks of life such as the dental industry gradually prospers. In recent years, China has made great progress in the medical industry. With the comprehensive popularization of oral health care propaganda and education in China, oral problems have been gradually paid attention to, and the demand for oral medical treatment has soared [17]. China is still faced with structural insufficient supply of medical resources. China continues to encourage private hospitals to run hospitals and relax the entry threshold for private capital. This environment provides unlimited development space for private dental clinics, and people have more choices to see doctors. Gan Xianyi et al.'s survey on the choice intention of Nanning citizens to dental medical institutions [18] found that people with less difficulty and shorter treatment cycle tend to choose private dental clinics. When acute diseases such as toothache occur, dental clinics are more likely to become the first choice of patients due to the long queuing time for registration in public hospitals.

According to Li Xing's research [19], at present, the number of dental practitioners (assistants) registered in dental clinics in China is four times that of dental hospitals or outpatient departments. According to Zhu Dan's investigation and analysis of the current situation of oral health institutions and human resources in Zunyi City [20], 145 private oral health institutions in Zunyi City, accounting for 73.54% of dental medical institutions, have 802 dentists, 657 dental nurses, and 13 dental technicians, with a doctor-nurse ratio of 1:0.8. According to Yang Xiao-ting et al.'s survey report on oral health institutions and human resources in Guangdong Province [21], there are 5258 oral health institutions in Guangdong Province, among which 3573 are non-public institutions, accounting for 68%. The ratio of doctors and nurses is 1:0.67, and the ratio of dentists and dentists to population is 1:9013. According to the study [22], 1649 private dental institutions in Liaoning have 3132 dentists, 1265 nurses and 540 technicians, with a doctor-nurse ratio of 1:0.4. Li Xinran et al., in their investigation report on the status quo of doctors in private dental institutions in Xuzhou City [23], pointed out that 93 private dental institutions in Xuzhou City have 304 dentists, 278 of whom have primary titles or below, accounting for 91.45%.

2.3 Status of health resources of private dental clinics in Xinjiang

On August 6, 2002, the Private Medical Institution Management Group of Hospital Management Committee of Chinese Stomatological Association was established in Xinjiang, which is the predecessor of the Private stomatological Association. Currently, the private stomatological Association is the largest special committee in Chinese Stomatological Association, and its role is to promote the high-quality and prosperous development of private stomatology.

According to the study of Nan Junxiang (2017) [24], private dental institutions in Hami accounted for 73.33% of the total number of dental institutions, and there were 179 dental health workers, 119 dentists, 38 nurses, and 22 dental technicians, with a ratio of 1:0.32 between doctors and nurses. According to Zheng Sipeng (2017) research [25], there are 214 stomatological medical institutions in Urumqi, 173 of which are private dental institutions, accounting for 80.84%. There are 990 dentists and 358 nurses, with a doctor-nurse ratio of 1:0.36. According to the research on the allocation status and development prediction of oral health resources in Xinjiang by Hatemai Abibuli [25], there are 825 dental medical institutions in the north slope of Tianshan Mountain, including 461 private dental clinics, accounting for 55.88%; There were 346 dental medical institutions in North Xinjiang Region, including 169 private dental clinics, accounting for 48.84%; There were 340 dental medical institutions in southern Xinjiang, including 133 private dental clinics, accounting for 39.12%. The ratio of dentists to population was 1:3175 in northern Tianshan district, 1:7154 in northern Xinjiang district, and 1:18616 in southern Xinjiang district. Among the dentists in private stomatological medical institutions in Hami City, 53.07% have college degrees [26]. Among the dentists in private stomatological clinics in Urumqi, more than 50% have primary titles, and 41.62% have specialist degrees or below [25]. According to Zheng Sipeng's research [27], in terms of the number of institutions, although private dental institutions are the main body of oral health services in Urumqi, in terms of outpatient volume, private institutions accounting for 80% of oral health resources bear 35.48% of the outpatient volume. In general, the number of private stomatological medical institutions is large, the scale is small, and the service ability is weak. Most dentists have junior college and junior professional titles.

3. Problems existing in private stomatological medical institutions

Zhu Dan's development status, problem analysis and countermeasures of private stomatological institutions put forward that private stomatological institutions in our country have a series of problems such as lack of scientific management system, shortage of talents, low ratio of doctors and nurses, low level of medical quality, poor hospital infection quality control work, unreasonable charge system and so on. Only by solving the above problems can sustainable development be maintained [28]. There are still a certain number of unlicensed dentists in our country. These illegal dentists often do not receive professional education, but continue to be taught by mentors or self-study. Wang Tian put forward in the research on internal control of small and medium-sized private dental medical institutions [29] that although private dental institutions have the guidance of the government, many institutions still do not realize the importance of scientific management system. According to the study by Li Yue et al., the dentists in private dental clinics in Beijing have the largest proportion of college degree and primary title [30]. According to the results of Wang Hong et al., the average monitoring rate of cleaning, disinfection and sterilization in private dental clinics is 35.84%, and the average professional training and knowledge mastery rate of cleaning, disinfection and sterilization staff is 78.67%, which are lower than those in public dental medical institutions [31]. Ou Yao et al. put forward in their study [32] that the policy support for private dental medical institutions is not enough, and the policy environment is not conducive to the healthy development of private medical institutions.

Some clinics were decorated luxuriously but the layout process was not reasonable. Dental instruments, disinfection and sterilization equipment, air disinfection, and hand hygiene facilities were not perfect. The situation of disinfection and sterilization of dental medical instruments was not optimistic, aseptic technology and disinfection and isolation system were not strictly implemented, daily cleaning and disinfection were not recorded, and immediate disinfection could not be done when blood and body fluids were contaminated. Non-standard management of medical waste, with such problems as mixed disposal of medical waste and household waste, unqualified sharps boxes and medical waste packaging, and non-standard use in 57.1% of the clinics; The occupational protection was not in place, and some medical staff did not wear protective masks or glasses, only wore gloves and unqualified masks[33];

4. Summary

At present, the development level of private dental clinics in the world is not balanced, and there is a big gap between developing countries and developed countries in the field of private dental clinics. The main reasons are that the developing countries are not rich in medical resources, the level of medical technology needs to be improved, and the construction of relevant legal mechanisms is not mature. Developing countries such as Brazil and Malaysia spend less than 1% of their health budgets on oral health. In Thailand, every Thai citizen has access to basic prevention, treatment and health services [34]. However, with the development of national economy and society and the improvement of people's living standards, the coverage of medical insurance will gradually expand, and the level of medical insurance will also be improved. With the comprehensive popularization of oral health care propaganda and education, people pay more and more attention to oral problems. By means of timely rectification of stomatological medical institutions with lagging management, regular training courses on hospital infection management and disinfection supply were held to improve the medical ethics construction and awareness of hospital infection prevention and control of practitioners in private stomatological medical institutions. In the future, private dental clinics will give full play to their own advantages and become the main body and effective supplement of China's stomatological field with the supplement of medical equipment and doctors.

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