

Editorial

Mouwang Zhou and Erdan Dong*

Opportunity and challenge of rehabilitation medicine in China

<https://doi.org/10.1515/mr-2024-0027>

Rehabilitation medicine is an emerging discipline in China which is just like most countries in the world. With China's reform and opening up, economic development, and the increasing demand for health among the people, rehabilitation medicine which focuses on functional recovery has gradually attracted the attention of society and the people.

Development overview

In the early 1980s, China introduced the concept of modern rehabilitation medicine and the application of rehabilitation medicine as a discipline name began in 1982 [1]. In April 1983, the Chinese Association of Rehabilitation Medicine was established. In 1984, the Ministry of Health issued a document requiring the establishment of a “rehabilitation medicine” course in the clinical medicine major of national medical colleges and universities. In June 1985, the “Journal of the Chinese Association of Rehabilitation Medicine” was founded (renamed the “Chinese Journal of Rehabilitation Medicine” in November 1985). In 1987, the WHO established a rehabilitation cooperation center at Sun Yat-sen Medical University; in 1990, a WHO rehabilitation training and research cooperation center was established at Tongji Medical College in Wuhan, training a group of backbone talents in rehabilitation medicine for China. In 2013, standardized training for residential program in rehabilitation medicine began. In June 2016, commissioned

by the National Health Commission, the Rehabilitation Medicine Department of Peking University Third Hospital served as the national quality control center for rehabilitation medicine, forming a rehabilitation medicine quality control network covering 31 provinces, municipalities, and autonomous regions in China. The rescue of injured patients during the 2008 Wenchuan earthquake in Sichuan promoted unprecedented attention from the government and society to rehabilitation medicine. The national government has issued a series of documents to promote the development of rehabilitation medicine, including: On March 17, 2009, the Central Committee of the Communist Party of China and the State Council issued the “Opinions on Deepening the Reform of the Medical and Health System”, which first proposed the principle of “combining prevention, treatment, and rehabilitation in medical and health care”. In 2011, the Ministry of Health issued the “Guidelines for the Construction and Management of Rehabilitation Medicine Departments in General Hospitals”, requiring that general hospitals above the second level must establish a rehabilitation medicine department [2]. In 2012, the Ministry of Health also issued the “Basic Standards for Rehabilitation Hospitals”.

Current situation and opportunities

Rehabilitation medical services are a weakness in China's medical service system and cannot yet meet the needs of the broad masses of the people. Currently, although the number of physicians, therapists, nurses and rehabilitation nurses working in medical institutions in China is increasing year by year, there is still a large gap between the number and the construction standard of rehabilitation medicine departments issued by the state in 2011 (Figure 1) [3]. The three-level network of rehabilitation services is also very incomplete, and there is still a significant lack of rehabilitation medical institutions, especially rehabilitation hospitals and community rehabilitation. In 2021, the National Health Commission and eight other departments jointly issued the “Notice on Printing and Distributing the Opinions on Accelerating the Development of Rehabilitation Medical

*Corresponding author: **Erdan Dong**, Research Center for Cardiopulmonary Rehabilitation, University of Health and Rehabilitation Sciences Qingdao Hospital (Qingdao Municipal Hospital), Qingdao, Shandong 266071, China; School of Health and Life Sciences, University of Health and Rehabilitation Sciences, Qingdao, Shandong 266071, China; Department of Cardiology and Institute of Vascular Medicine, Peking University Third Hospital, Beijing, China; and State Key Laboratory of Vascular Homeostasis and Remodeling, Beijing 100191, China, E-mail: donged@bjmu.edu.cn

Mouwang Zhou, Department of Rehabilitation Medicine, Peking University third Hospital, Beijing, China

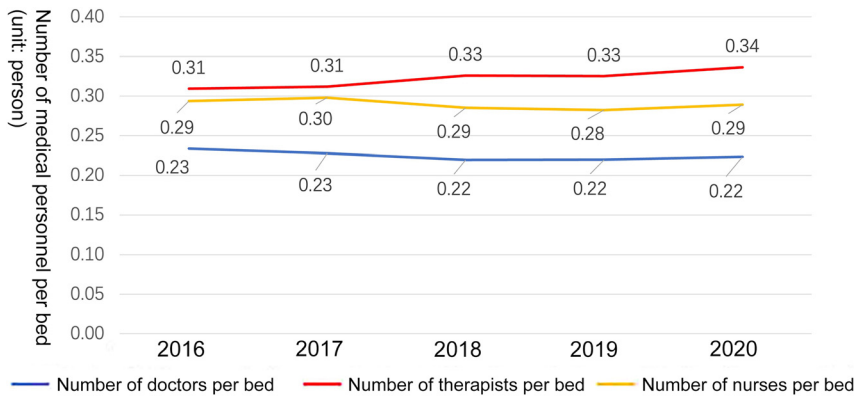


Figure 1: Number of medical staff per bed in the rehabilitation medicine department of general hospitals from 2016 to 2020.

Services”, proposing to improve and perfect the rehabilitation medical service system, strengthen the construction of rehabilitation medical professional teams, and improve rehabilitation medical service capabilities. This document provides a specific blueprint for the development of rehabilitation medicine in China in the next five years. With the implementation of the strategy of healthy China, the country attached great importance to the construction of rehabilitation disciplines and the personnel training of rehabilitation, and successively included the construction of the Rehabilitation Universities into the national 13th Five-Year Plan and the 14th Five-Year Plan, opening a new situation of organized and systematic development of rehabilitation higher education [4].

Challenges and suggestions

In 2017, the WHO launched the “Rehabilitation 2030: A Call to Action” (Rehabilitation 2030) which aims to improve access to and quality of rehabilitation services worldwide [5]. The first global disease burden study on rehabilitation published by The Lancet in 2020 showed that China was the country with the greatest demand for rehabilitation [6]. However, there are still many challenges to achieving this goal in China. One of the main challenges is the lack of professional rehabilitation medical personnel. As mentioned earlier, there is a significant gap between the current number of rehabilitation medical personnel and the national standards. In addition, the uneven distribution of rehabilitation medical resources is also a problem. Most high-quality rehabilitation medical resources are concentrated in large cities and hospitals, while rural and underdeveloped areas lack sufficient rehabilitation medical services. To address these challenges, it is recommended that the government strengthen investment in rehabilitation medical education and training, increase the number of professional

rehabilitation medical personnel, and improve the distribution of rehabilitation medical resources. In addition, it is also necessary to strengthen the construction of community rehabilitation services, improve the accessibility and convenience of rehabilitation services for the general population, and promote the development of rehabilitation medicine in China.

Research ethics: Not applicable.

Informed consent: Not applicable.

Author contributions: Mouwang Zhou wrote the manuscript; Erdan Dong was responsible for the conception and supervised the manuscript. All authors have read and approved the final manuscript.

Competing interests: The authors have no conflicts of interest to declare. Professor Erdan Dong is a member of Medical Review editorial board and is not involved in the peer review and decision process of this article.

Research funding: This work was supported by CAMS Innovation Fund for Medical Sciences (no. 2021-I2M-5-003 to ED Dong.), Haihe Laboratory of Cell Ecosystem Innovation Fund (no. HH22KYZX0047 to ED Dong.)

Data availability: No new data were created or analysed in this article. Data sharing is not applicable to this article.

References

- Sun Q, Zhou M. The development history of China’s rehabilitation medical service system (in Chinese). *Chin J Rehabil Med* 2019;34:753–5.
- National Health Commission. Ministry of health on the issuance of the guidelines for the construction and management of rehabilitation medicine departments in general hospitals. [EB/OL]; 2011. Available from: <http://www.nhc.gov.cn/wjw/gfxwj/201304/c13a4d15fa1946418cb8d423785455eb.shtml>.
- Zhang YMF, Zhang H, Yang YY, Zhang N, Liu JY, Liu XX, et al. Trend analysis of medical service and quality safety in rehabilitation medicine department of general hospitals in China from 2016 to 2020: based on the data of national medical quality management and control information system (in Chinese). *Chin J Rehabil Med* 2023;38:1417–21.

4. Wang ZY, Huo JK, Guo X, Dong ED. The Chinese practice of developing rehabilitation disciplines (in Chinese). *Sci Sin Vitae* 2023;53:131–4.
5. Gimigliano F, Negrini S. The world health organization “rehabilitation 2030: a call for action”. *Eur J Phys Rehabil Med* 2017;53:155–68.
6. Cieza A, Causey K, Kamenov K, Hanson SW, Chatterji S, Vos T. Global estimates of the need for rehabilitation based on the global burden of disease study 2019: a systematic analysis for the global burden of disease study 2019. *Lancet* 2020;396:2006–17.