Ability training of rehabilitation specialists under the ICF framework

Xianglin Cheng, Yong Wan

Department of rehabilitation medicine, the First Affiliated Hospital of Yangtze University, Jinzhou, China.

Abstract

With the development of modern rehabilitation medicine, the requirements for rehabilitation specialists are higher and higher. However, at present, the training of rehabilitation specialists is still faced with problems such as single training mode, inconsistent standards and unqualified ability. We need to systematically train our rehabilitation specialists under the framework of ICF, which will help to further promote the faster development of rehabilitation medicine.

Keywords

ICF framework; rehabilitation specialist.

1. Introduction

In 2016,the *"Healthy China 2030" planning outline* was deliberated and adopted by the Political Bureau of the CPC Central Committee. It is proposed to adjust and optimize the health service system and strengthen early diagnosis, early treatment and early rehabilitation [1]. The rehabilitation medicine department of a general hospital should position itself as a regional rehabilitation medicine center integrating standardized rehabilitation treatment of common diseases, centralized rehabilitation treatment of difficult and complex diseases, and rehabilitation medicine education, research and discipline management training. The rehabilitation medicine has ushered in a fast lane of development, and the clinical demand for rehabilitation doctors is increasing, however, there is no undergraduate major in rehabilitation and clinical medicine. Doctors are either from the Discipline Training of clinical medicine, or graduate students majoring in clinical medicine to study rehabilitation medicine, or graduate students majoring in other disciplines (such as neurology, traditional Chinese medicine, integrated traditional Chinese and Western medicine, acupuncture, etc.), his leads to uneven levels of rehabilitation specialists. How to standardize the training of rehabilitation specialists has become a problem worthy of serious consideration.

2. Modern rehabilitation medicine education must be incorporated into the ICF framework

Modern rehabilitation medicine is a medical specialty whose main task is to study the prevention, evaluation and treatment of dysfunction of patients with diseases, injuries and disabilities, and its purpose is to improve physical function, improve self-care ability and improve quality of life [2]. Its object and scope can be the dysfunction caused by various reasons, such as body, organ, spirit, psychology and so on. Its contents include rehabilitation prevention, rehabilitation evaluation and rehabilitation treatment.Rehabilitation evaluation is the basis of rehabilitation treatment. The biggest feature of modern rehabilitation medicine is to pay attention to the comprehensive functional evaluation and analysis of patients. Under the biological psychological social medical model, comprehensive analysis and evaluation should not only focus on the patient's function, but also pay attention to the patient's psychological and social environment. On the basis of comprehensive evaluation, it emphasizes the full participation of medical treatment, patients, families and society, so as to help patients recover, reconstruct or compensate their function to the greatest extent and reintegrate into society. Therefore, comprehensive and systematic evaluation is the basis of rehabilitation treatment and prognosis evaluation.The traditional ICD only reflects the pathological and pathophysiological state, and can not reflect the changing functional state, so it can not provide enough information about the health status. Other evaluation tools are limited to one aspect of the

patient's function, only focusing on the part, not the whole, but also separating the disabled from the so-called normal people.However, function and disability are not only the result of disease, but also related to many factors (personal health status, resources and environment available to individuals). In order to identify the needs of the disabled, it is necessary to understand their life experience. The process of rehabilitation medical treatment is a process of re integration of human body, psychology and society to varying degrees. And modern rehabilitation medicine not only pays attention to the dysfunction caused, but also to the earlier stage of the disease. Therefore, it extends rehabilitation prevention, severe rehabilitation and chronic disease rehabilitation. The concept of rehabilitation is broader, the demand is greater, and the requirements for medical personnel are higher.The international classification of function, disability and health (ICF) was officially named by the World Health Organization at the 54th World Health Assembly on May 22, 2001 and used internationally. ICF takes a comprehensive view of human dysfunction and rehabilitation process, including organ / system dysfunction, individual activity ability limitation and social participation limitation. Human function includes three contents: body function and structure (organ / system level), activity (individual level) and participation (social level). Dysfunction can be divided into three aspects; Organ / system disorders, restricted activity and participation. Dysfunction is affected by the interaction of environmental factors and personal factors: environmental factors are external factors, including medical factors, architectural factors, assistive devices and other material environment, as well as social factors such as policies, regulations and attitudes. Personal factors are internal factors, including race, gender, age, habits, etc. Environmental factors and personal factors are collectively referred to as background factors, which are closely related to functional status.The goal of ICF is to establish a common language for communication between different medical disciplines, which can be applied to all people in different health states, which is different from the previous classification of persons with disabilities as a group, and emphasizes that persons with disabilities fully participate in social life, and individuals in different health states (physical and psychological) have no restrictions on activities and participation, It is to treat the structural and functional defects of the body separately to reflect all the defect states of the body. It can be used as the basis of prognosis judgment, rehabilitation treatment, quality control and long-term follow-up. The core theory of ICF is based on the model of biology psychology sociology. It can be said that ICF is a link linking clinical medicine, rehabilitation medicine and preventive medicine. Modern rehabilitation medicine must be incorporated into the ICF framework to change rehabilitation medicine from biological model to biological psychological social model, from "seeing a doctor" to "seeing a patient", from one-time service to lifelong service, reflecting the value of rehabilitation and nursing.

3. Clinical competence needs of rehabilitation doctors under ICF framework

ICF takes a comprehensive view of human dysfunction and rehabilitation process, emphasizing body function and structure (organ / system level), activity (individual level) and participation (social level),we are required to evaluate the function of patients from four dimensions and consider the disabled into the social population. Considering the functional level of patients in four dimensions is a great progress and high requirement for rehabilitation therapists, but it is still not enough from the perspective of rehabilitation specialists. We should further expand the connotation of ICF, such as paying attention to the structure. We can't stay on what structure (such as brain basal ganglia) is damaged and what dysfunction (hemiplegia) is caused, As a prevention and cure for severe rehabilitation, we must also grasp what causes the damage (bleeding or infarction). What causes (hypertension or hyperlipidemia, diabetes)?In short, the development of modern rehabilitation requires our rehabilitation specialists to be internal medicine. In addition to the knowledge of rehabilitation doctors and rehabilitation treatment that traditional rehabilitation doctors should master, we must also master the relevant knowledge of internal medicine, and all the knowledge of general internal medicine, which puts forward higher requirements for the training of our rehabilitation doctors, Maybe in the near future, there will be only critical care doctors, surgeons and rehabilitation doctors in the clinical division. In order to adapt to the progress of rehabilitation medicine, what

abilities should our rehabilitation specialists have under the framework of ICF? Under the framework of ICF, different requirements are put forward for our rehabilitation doctors according to its four dimensions, In terms of structure, we are required to be a general practitioner of internal medicine. We must be proficient in the prevention and treatment of common internal diseases, first aid and treatment of common critical internal diseases, and routine internal medicine operations (such as lumbar puncture, joint cavity puncture, fiber bronchoscope operation, etc.); In terms of function, the skills that rehabilitation doctors must master are essential, and the rehabilitation treatment technology must be mastered from the basic and micro levels of structure, physiology, biochemistry, physics and sports; In terms of activities, we should become an excellent occupational therapist; In terms of participation, doctors must be an excellent psychotherapist and social activist; In terms of environmental factors, the doctor must be an excellent architect, psychotherapist and legal expert, as well as an excellent teacher.Therefore, combined with the ability training of clinicians recommended by ACGME (Accreditation Council for graduate medical education) [3,4], We should have the connotation of training rehabilitation specialists in the following six aspects: Patient care: it refers to sympathizing, appropriately and effectively treating health problems and promoting health. First, it is necessary to have heartfelt compassion and compassion, which is the fundamental point of being a doctor; Medical knowledge: refers to the acquired knowledge involving biomedicine, clinical and homologous disciplines (such as epidemiology, social behavior, etc.) and used for patient diagnosis and treatment, in terms of medical knowledge, modern rehabilitation medicine requires rehabilitation doctors to fully master the medical knowledge and operational skills of physicians, as well as the relevant basic knowledge, basic theory and basic skills of rehabilitation treatment;Learning and improvement in clinical work: our rehabilitation doctors must be based on clinical practice, evaluate based on clinical practice, integrate all factors, solve the actual functional problems of patients, and make patients better adapt to the society. At the same time, we should be good at summarizing and summarizing in practice, be good at finding problems, and rise to the perspective of scientific research; Interpersonal relationship and communication skills: generally speaking, the patients contacted by rehabilitation doctors have basically stable primary disease, some functional defects, certain psychological problems and high expectations. therefore, how to conduct effective information exchange and team cooperation with patients, patient families and other professionals in the process of diagnosis and treatment, need higher communication skills and profound professional knowledge and social knowledge; Clinical work under the system: it can also be understood as the work ability based on the system, which requires our rehabilitation doctors to be familiar with various laws, regulations, medical systems and regulations, medical insurance policies, social security policies and various rules and regulations within the unit, and the ability to effectively use system resources to provide the best medical services.

4. Problems in the training of modern rehabilitation doctors

First, the lack of undergraduate education and the diversity of doctors. At present, there is no undergraduate education for rehabilitation doctors. The original undergraduate education for rehabilitation doctors has stopped enrollment. At present, only a few colleges and universities have set up the integration of rehabilitation medicine into compulsory courses[5]. At present, most rehabilitation doctors in medical institutions are transferred from other majors, such as physiotherapy, traditional Chinese medicine acupuncture and massage, orthopedics and neurology. The training is not systematic, so it is difficult to play their due role in the work mode of rehabilitation medicine.Second, postgraduate training and standardized training program for residents can no longer meet the needs of the development of modern rehabilitation medicine. At present, the rehabilitation postgraduate education in many schools is mainly scientific degrees,even if there are few institutions with professional degrees and the time is short, most of the time is to help the tutors complete the topics, and there are few clinical rotations. Some graduate students can not fully complete the training plan of rehabilitation, let alone related internal medicine majors. First of all, it is difficult to recruit students for the planned training of residents. The recruited students have only one year in relevant

majors, and some departments have only 4 weeks. There are also problems of insufficient specialized training time, careless training plan and inconsistent assessment standards [6]. Therefore, they are far from meeting the needs of rehabilitation clinic after graduation.Third, the duty contradiction between rehabilitation specialists and rehabilitation therapists appears [7]. At present, rehabilitation physicians should not only focus on rehabilitation treatment technology, but should improve their teaching ability and scientific research level, use their academic knowledge and skills to provide theoretical and technical support for rehabilitation therapists and cultivate more rehabilitation technical talents. Fourth, the sub specialty development of rehabilitation doctors lags behind [8].

5. Specific training measures and results

The first is to strengthen the cultivation of the ability of discipline leaders [9]. The academic qualifications of discipline leaders must require master's students in relevant majors, and the doctor is the best. In terms of clinical ability, they must carry out standardized training in ICU, cardiovascular medicine, respiratory medicine, orthopedics and neurology and surgery for about one year. The time of each specialty shall be determined according to their own professional direction and professional level, In scientific research, there must be an article in a core journal every year and must undertake projects at or above the provincial level;Second, for the graduate students of various majors introduced by our department[10], before entering our department, they shall carry out one-year rotation training in ICU, cardiovascular medicine, respiratory medicine, orthopedics and neurology and surgery. After returning to our department, they shall irregularly go to relevant departments for three months according to their working ability and professional level. They must master the first-aid skills that ordinary physicians should master operation skills and technical level;Third, business learning in the Department shall be conducted once a week, and a theme learning shall be determined according to the problems faced in clinical work (senior doctors in their own department can give lectures, and teachers of relevant majors shall be invited to give lectures in the Department); Fourth, the junior attending doctors in the department all signed up for the national unified examination of the intermediate title of rehabilitation therapist; Fifth, doctors above the deputy chief physician must determine their own sub specialty.After nearly three years of gradual implementation, we have achieved ideal results. First, in this year's intermediate professional title examination for rehabilitation therapists, all four doctors in the department passed with high scores (including discipline leaders); Second, our trained doctors got the first score in the province in the graduation examination. Third, the service ability and first aid ability of the department were significantly enhanced. Due to the outstanding work, the hospital has placed the follow-up clinic of stroke in our department, which is completed by our doctors; Fourth, the sub professional direction of the Department is basically complete; Fifth, some breakthroughs have been made in scientific research. More than 10 papers have been published in three years, of which 2 are included in SCI.

6. Conclusion

In short, with the development of modern rehabilitation medicine, we must turn our rehabilitation specialists into internal medicine and teachers under the framework of ICF, and further professionalize and subspecialty on this basis.

References

[1] Xinhua News Agency.The CPC Central Committee and the State Council issued the *"healthy China 2030" plan outline* (2016-10-25)[2020-01-02]. http://www.gov.cn/zhengce/2016-10/25/content_5124174.htm.

[2] Jianan Li. Rehabilitation medicine [M]. Beijing: People's Health Publishing House, 2014.

[3] Wass V, Vleuten CV, Shatzer J,et al. Assessment of clinical competence[J]. THE Lancet, 2001,357:945－949.

[4] Epstein Ｒ M,Hundert EM.Defining and assessing professional competence[J].JAM A,2002, 287(2):226－235.

[5] Jie Xiang. Current situation and Thinking on the training of rehabilitation doctors [J]. Health vision, 2019,12:220.

[6] Mi Cheng,Chao Li,Baolan Wang,et al. Comparison and Reflection on the training of rehabilitation doctors between Taiwan and Mainland China [J]. Chinese Journal of medical education exploration, 2019,4:371-376

[7] Wenzhu Huang,Zhijun Wang,Huie Zhou,et al. Investigation and analysis of rehabilitation medical service capacity of medical institutions in Foshan [J]. International medical and health Herald, 2020,3:636-640

[8] Jiejiao Zheng. Qualification Access and discipline standardization construction of rehabilitation doctors. The second rehabilitation medicine forum of China Medical Association, 2005.5.

[9] Jiejiao Zheng.Chuangfu Wang,Shijie Yan. Current situation of Rehabilitation Medicine Department of Shanghai General Hospital [J]. Chinese Journal of rehabilitation medicine, 1999,14 (2): 82.

[10] Shang Liu. New development direction of rehabilitation medicine in public hospitals [J]. Medical information, 2003,7:30-31.