1. Background

1.1. Guiding principles

To implement the education policy of the government of China.
To follow the rule of medical education and the mechanism for talent growth.
To gain experience from international practice.
To take service needs and quality improvement as the core.

1.2. Primary objectives

Achieve a breakthrough in the reform of the medical education management system.
Improve the incentive mechanism of medical personnel.
Establish a basic training system for medical personnel.
Promote the coordinated development of multiple professional personnel trainings.

2. Strengths

2.1. Abundance of trained health and health professionals

During the “12th Five-Year” period, the medical category level graduates reached 5.23 million, with an annual average of 1.05 million graduates. Medical graduates totaled 210,000 (20%), and nursing graduates totaled 520,000 (50%) per year on average.

By the end of 2016, the total number of health technical personnel reached 11.17 million, and that of health technicians reached 8.45 million. Moreover, 2,311 doctors and 2,541 nurses were available in every 1000 population. The physician–nurse ratio has also been reversed to normal.

2.2. Significant increase in investment toward medical education

In 2012, central government funding for medical undergraduates increased from 14,000 RMB to 27,000 RMB, reaching the highest average standard among all professional training students. During the period of “12th Five-Year”, the Ministry of Education and the National Development and Reform Commission added 100 million RMB to each of the 23 Midwestern medical schools to improve teaching conditions and promote undergraduate teaching ability.

The Ministry of Education established the Teaching Steering Committee of the 2013–2017 Higher Education Department of the Ministry of Education. The committee is responsible for the research, consultation, guidance, evaluation, and service of undergraduate teaching in higher education institutions.

2.3. Exchanges and cooperation in a multilayer and wide field

By the end March 2016, 22 Sino-foreign cooperative education institutions and projects were awaiting for the examination and approval of the Ministry of Education, and 10 nursing cooperation schools were approved by the government.

Various national and regional areas have cooperation institutions in nursing, including the United States (13), Australia (5), Hong Kong (1), Taiwan (1), Sweden (1), and others for a total of 32. Extant school projects are found in Hubei (6), Zhejiang (5), Shanghai (4), Heilongjiang (3), Guangxi (2), Henan (2), Jilin (2), Beijing (1), Hebei (1), Hunan (1), Jiangxi (1), Liaoning (1), Inner Mongolia (1), Shandong (1), and Tianjin (1). Moreover, 15 provinces and municipalities are directly under the central government city in terms of nursing education institutions.
2.4. Constantly enhanced reform of the nursing education

For school education, reform in the curriculum, the education and assessment methods, and the teachers' training were achieved. We increased the class hours of humanities and social sciences, constructed a comprehensive nursing curriculum, produced new text books, and facilitated earlier nursing practice in hospitals for students. The nursing faculty is highly educated, and their academic qualifications and knowledge structures are constantly optimized. We explored and applied a student-centered education method. Considerable attention has been paid to the cultivation of the students' abilities and professional manner. Group reports, class performances, online tests, and term examinations are widely applied.

For continuing education, adult higher education and examinations for diploma for self-taught individuals provide access for nurses from vocational schools to acquire higher nursing education. Regulations for continuing education credits ensure the in-service training of nurses.

For post-graduation education, a nationwide new nurses' training program was promulgated on 16th February, 2016. Through the training program, new nurses are required to master and identify the etiology, clinical symptoms, signs, and treatment principles of different specialized diseases.

3. Weaknesses

3.1. Problems in the qualification and ability of nursing schools

The number of nursing schools in China has increased considerably. Certain vocational schools teach nursing although they are not qualified to provide such education. Nursing students in some schools are too numerous, whereas the nursing faculty are relatively inadequate. Thus, the quality of graduates from such schools is unsatisfactory.

3.2. Problems in the educational level structure and education scale

Nursing educational hierarchy in China is unregionalized. The hierarchy of nursing education is unreasonable. The speed and quality of the development of undergraduate education is unbalanced. As for graduate education, the scale is limited, and its overall quality is low. Despite the expanded scale of education, needs remain unmet as regards the effective improvement of the educational level of the nursing staff.

3.3. Lack national education standards and certification

No national standard has been established for master's and PhD degrees, and nursing academic degrees and nursing register cannot be effectively linked.

4. Opportunities

4.1. Medical education reformation

Opinions of the General Office of the State Council advocate strengthening the cooperation between medical practice and medical education and further promoting the reform and development of medical education (2017). The said Opinions include the following: promoting the integration of information technology and medical education, strengthening the construction of the clinical teaching base in medical colleges, clarifying the main function of clinical teaching in affiliated hospitals, considering teaching as an important content of the assessment of the affiliated hospitals, establishing and perfecting the system of medical education after graduation, strengthening the quality evaluation of medical education, and establishing and improving the mechanism for the balance of supply and demand of medical talents.
4.2. Medical and health system reformation

The Medium-And Long-Term Development Planning For Medical And Health Personnel (2011–2020) was published. Its main contents include the following: strengthening the construction of the medical and health personnel team at the basic level, vigorously developing solutions for the urgent shortage of specialized personnel in medical and health care, and strengthening the construction of high-level medical and health personnel teams.

In the Outline Of The Development Plan For Chinese Nursing Career (2016–2020), the total number of nurses is requested to increase, such as that 4.45 million registered nurses are expected by 2020 in China, and the number of registered nurses per thousand population must reach 3.14. In addition, the anticipated physician–nurse ratio is 1:1.25.

In 2020, the projected ratio of the total number of nurses and the actual open beds must not be less than 0.8:1 in the tertiary general hospitals and in certain tertiary specialized hospitals, and the ratio of the total number of nurses in the ward and the actual open beds should be no less than 0.6:1. The ratio of the total number of nurses and the actual open beds must not be less than 0.7:1 in the secondary general hospitals and in certain secondary specialized hospitals, and the ratio of the number of nurses in the ward and the actual open bed must not be less than 0.5:1.

New induction nurse training: according to the new induction nurse training program, all of the new induction nurses in tertiary general hospitals should participate in the training.

4.3. Discipline development

In March 2011, nursing was removed from the second disciplines in medical education and became a primary discipline with a new code 1011.

Chinese Nursing Association was granted membership to the International Council of Nurses (ICN) in 2013, and enhanced international communication.

5. Threats

5.1. Over-all situation

The aging population, change of the disease spectrum, frequent disasters and accidents, and high requirements for the selection and cultivation of nursing students represent the challenges faced by nursing education in China.

5.2. Sub-environment

The era of the knowledge economy leads to new requirements for the course setting and the content of teaching. Economic globalization has affected the school management systems, the educational system, and the level of teachers for nursing education.

Nursing specialization entails new requirements for the degree of specialization and the lifelong learning abilities of the nursing staff. Increased social demands for nursing services cause changes in the nurse–patient relationship. In turn, such changes present profound challenges for the training goals of nursing talents.