Comparison of Nursing Education System in Iran and China

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Abstract

Background and Objective: Establishing and implementing high quality of nursing care for patients is the main objective of any nursing education system. However, the lack of proficient nurses all over the world led to a competition and collaboration among countries to train as much nurses with high skills and knowledge as possible. This paper aims at studying and comparing two nursing education systems in Iran and China.

Materials and Methods: Integrative literature review of published literature on the nursing education systems in the Iran and China from 1990 to 2015.

Results: The results show that in spite of many common aspects, the most significant similarity between these two systems is their educational paradigm that is concentrated on treatment of internal diseases and surgery with modeling the western bio-medical model, and the major difference is validating the quality of nursing education graduates in these two countries; In China, a national test is hold to receive a certificate after graduation and before starting to work as a nurse, but in Iran, there is no such program at the present.

Conclusions: We may use the two countries' capabilities and educational experiences in order to improve the quality of nursing education in the other country, and hence, we may achieve the ultimate goal of nursing, i.e. providing nursing care with high quality for patients.

Keywords: Human resources of health, Nursing education system, Nursing in Iran, Nursing in China.

Introduction

Training those involved in taking care of patients is one of the most challenging issues in any health care system all over the world. Among the professionals, nurses are at the forefront in providing health cares for patients, and this explains the importance of nursing education with high quality in countries (1). However, many Nursing Schools are working traditionally in their Education System, in a teacher-centered method and training in hospitals, and do not often apply educational experiences and innovations except in rare cases (2). Therefore, it can be said that all trainers, planners and policy makers are required to be notified and aware of such changes and innovations in order to be able to train skilled workforces with good qualifications, or in other words need-based human resources, for the countries' health.

In spite of the significance of training high quality nurses, there feels a lack of enough numbers of nurses in the world, which, in turn, has formed a competition and collaboration among countries in order to train as many skilled nurses as possible (3). This resulted in the increased interest in migration and international employment

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among nurses. However, the degrees of nursing in one country may be unknown or invalid in another country (4, 5), so there has been created a tendency toward making and developing some common standards and qualifications among countries in some valid international health organizations (6). In case of obtaining this, it is predicted that nursing services can be improved, and nurses can achieve an international valid certificate. Therefore, this paper is aimed at studying nursing education systems in Iran and China, based on the available resources. First, it studies the nature of nursing education throughout its history, different types of nursing education programs and the challenges in this matter, and then it examines the nursing education systems in these two countries.

Materials and Methods

A review of the literature was conducted via hand, internet, and database searches. CINAHL and Medline were the primary databases used for the literature search. Key words 'human resources of health', 'nursing education system', 'nursing in Iran', 'and nursing in China' were used to enhance research methods. In addition, the reference sections of the original articles retrieved were reviewed for related literature that had been previously missed or omitted. The literature primarily focused on
articles within the last 15 years that researched in Iran and China.

Results

1- Historical study of modern nursing education in Iran

There is no reliable information about the exact date of formation of nursing and nurse concepts. But it seems that there were women as “Bimarder” who cared the patients in state health centers called as “Darolshafa”. These women had no formal training to care the patients (7). Being affected by European and American countries, the first school of nursing was established in Urmia, managed by Miss Wales, and one year later, the second one was established in Tabriz under the management of Mrs. Frances Wooding. Special emphasis on teaching English as well as nursing , and accepting only female students were prominent training features in these schools (7).

Due to cultural and indigenous beliefs, all students and graduates of these schools were from other countries, including Russia, Georgia, and the graduates were referred to as medical assistants (8).

After the Islamic Revolution and outbreak of the Cultural Revolution, the nursing education that was mainly influenced by the English nursing model changed through modifications in higher education structure (9) and revisions in nursing curricula. During the imposed war, 1980-1987, an urgent need to nursing and nurses was felt, therefore some nursing schools in small cities were formed in order to train as many nurses as possible. Moreover, the nurses training program changed to a 2-year program to accelerate meeting such need. In 1987, the need for more nurses reduced and the 2-year training program was cancelled, and changed to a 4-year one (8). Islamic Revolution had a great influence on nursing education in Iran. One of them was caring the patients of the same sex due to the religious values (10). Such attitude led to a revision in using male and female nurses and then, the number of male nurses increased (11). In 1985, the Medical Department of Higher Education Ministry was merged with Ministry of Health, and Ministry of Health and Medical Education was formed (12).

Since late 1980, concerns about providing budget and the increased number of nursing graduates made the government revise the admission of nursing students.

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Comprehensive evaluation of the competence of nursing schools led to the cancellation of some nursing schools and colleges. In turn, some other nursing schools were forced to cancel their discontinuous nursing training programs and decrease the number of full-time students. These changes resulted in decreasing the admission of students during the recent decade (8).

2- The nursing education system in Iran

In Iran, the applicants for nursing take the entrance exam, and those who gain higher scores can continue their studies in the favorite field. Students with lower scores have fewer choices and are mainly admitted in fields, they have no interest or motivation to study, such as nursing.

In Iran, the government is in charge of leading the nursing education system and other fields on health care. The nursing training curricula are assessed by the nursing department of Ministry of Health and Medical Education. It also specifies the national nursing educational standards. The nursing program consists of objectives, perspectives, and nursing education and all schools of nursing must follow these programs and standards. In Iran there are two types of education based on educational costs: first, the state system in which government pays all education costs. In this system, all the students have the same chances of education and training, that is, there is no concern about their socio-economical status. Second, the private system in which the students have to pay for their educational costs. There are 60 Schools of Nursing all over the country, managed by Azad University (8). There are five programs in nursing education systems to train nurses as Associate Nurse Assistant, Nurse Assistant, Registered Nurse (RN), Master of Nursing, and PhD, as follows:

2-1- Associate Nurse Assistant (Komak Behyar)

In the terms of the organizational structure, associate nurse assistant who directly deals with patients is the lowest rank in providing health care. The associate nurse assistants are trained in 2-6 months under the supervision of RNs, mainly in hospitals. Their main task is doing preliminary health care (8).

2-2- Nurse Assistant (Behyar)

A nurse assistant is one who passed formal health care training according to educational rules in the form of a vocational and ethical framework, and is able to care the patients by describing the companion’s tasks as well as preliminary training to the patient (13).

The nurse assistant students passed 96 credits including 53 credits specialized courses in nurse assistance and 43 credits in general courses, and then were granted the proficiency certificate by the Ministry of Health and were considered as diploma (14). The graduates were granted a diploma in nurse assistance. The nurse assistants worked in clinics, outpatient clinics, and health care centers in under-developed areas in the country. It can be said that in Iran nurse assistants were among the first nurse workforces, who were considered reliable in improving health care. However, in recent years, this nursing education program is being eliminated from the nursing organizational structure (8).

2-3- Registered Nurse

Now, the bachelor's program, in Iran, is the basic academic study of nursing, and is the only way to become a professional nurse. The objective is training nurses with good qualifications to provide high quality health care. This program lasts 4 years and prepares the students as general nurses to provide health care in hospitals and clinics. Like the other academic programs, the students graduated from high schools must take the entrance exam and get the required score (8).

The content of curricula in bachelor's level in

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Iran includes basic, general, and specialized courses. The basic courses including anatomy, physiology, and pharmacology, and the general courses such as literature, religion, etc. are planned to increase the students' basic competence. The specialized courses are from the medical education model and influenced by the western models, and are disease-oriented, and are divided into some subgroups as inner nursing and surgery, obstetrics and genecology, children, psychiatric nursing, and community health (9). It is worth noting that, in 2014, Iran National Board of Nursing attempted to revise the nursing curricula through surveys in schools of nursing.

In undergraduate level, the students are required to pass 137 credits successfully. About 33 percent of the courses offered during the 4 years are practical and training; the students are required to attend 51 hours in hospitals for each course. The other courses are theoretical. It is worth mentioning that unlike the other countries particularly the western countries, nurses in Iran have no certain ranking, and the graduates are automatically considered as RN without taking any exam. RNs are general nurses who can be employed in all sections of a hospital. It should be noted that university professors, who generally have a master or PhD degree in one of the specialized majors of nursing, teach the specialized courses of nursing field.

2-4- Master of Nursing

The objective of the educational program of master of nursing is to train nurses with the ability to teach, do researches, and manage the provided services. The first program of master of nursing was launched in 1988. In 2004, 14 schools recruited students in master of nursing, mostly in big cities (9). Now, almost all nursing schools enroll the students in this level.

The requirements for continuing studies in master level are: having a bachelor's degree, and getting a high rank in the entrance exam for master level which is held annually by the Ministry of Health and Medical Education (9). On average, in Iran, it takes 3 years to get a master's degree. The students are required to pass at least 28 or at most 32 clinical and theoretical courses including thesis. In the past, there were two majors in this level in Iran: Nursing Training and Nursing Management, in internal diseases, surgery, mental health, children, and community health. Making the nursing specialized and increasing the quality of nursing services, the number of nursing majors has reached to 7, including the nursing of adult health, children health, mental health, intensive care, and neonatal, elders, and military intensive care. Most master graduates work in schools rather than hospitals. However, as the schools have no need to employ new workforce, the number of nursing master graduates is increasing.

2-5- The educational program of Nursing PhD

Nursing Ph.D. course is the highest level of education in this field, and the graduates work in universities, educational and research centers as faculty. The first nursing Ph.D. course was launched in Tabriz University of Medical Sciences in 1995, in which three students were enrolled. Now, most national type one universities are going to run this program; in 2015, the number of students in this level was 55 students (15), which is significant.

It lasts 4.5 years and the students pass 52 credits from which 20 credits are for thesis. The nursing Ph.D. course in Iran is similar to that of the United States and England. Contrary to that of America, working hours are less in Iran, and the program is research-based. The students who have English language proficiency and have a master's degree in nursing or other related majors can continue their studies in this level. They must

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also get the required rank in the entrance exam held by the Ministry of Health and Medical Education, and demonstrate their competence in the interview by nursing specialists. Developing researches and knowledge of nursing by smart, talented and efficient in this major may be considered as the objective of nursing training in Ph.D. level. The PhD graduates are expected to be able to determine the challenges in nursing and contribute to improve the quality of nursing care as experts (8).

2-6- The challenges of nursing education in Iran

The most important challenges in nursing education in Iran can be summarized in three groups:

- The first is its content. In other words, the content of nursing in Iran is more influenced by the western methods and lacks any native perspectives. On the other hand, there can be found no attempts to promote the holistic view toward the patient, and the trainers are often inattentive to the content of care which is the central notion of this field (16).
- The second challenge is the clinical environment for the students, which is not compatible to the reality of nursing. In other words, the goal of presence the bedside is facing with the nursing facts although it is so challenging to reach this goal due to the structures and processes of clinical environment (17). The shortcomings creating this challenge are lack of suitable facilities in accordance with the students' educational needs (18) and the lack of appropriateness between the educational space and the number of students (19). Concerning deficit in experienced faculty members to provide clinical training, this matter becomes more challenging.
- Another challenge is discrepancy between theoretical courses and the needs of patients in bedside (21). In fact, since the professors are young, the theoretical courses in classrooms are modern and based on the latest knowledge, but the clinical training is mostly traditional (22). Accordingly, it can be claimed that there is a kind of separation between bedside and the nursing schools in Iran, and the interaction between the departments' staff and nursing trainers is ineffective and has no contribution to achieving the clinical goals (22).

3 - The history of nursing education in China

Until 1842, making ideas and modern nursing in China was influenced by counselors and missionaries from western countries, particularly America and Canada (23). Esther H Buther and Ella Johnson, trained American nurses, established the first hospital-based nursing school in China in 1888 (24, 25). In 1910, Nina Gage launched the nursing training program in Changsha, as a part of Yale cult. She, then, was appointed as the head of Nurses Association of China and the head of Henan-Yale nursing school (24, 25). In 1915, the nursing examinations were held to receive the confirmation of competence for clinical care (26). Since 1920, training students in nursing as an academic field was established for the first time in State College of Peking, exclusively for women. This program was the first undergraduate program in Asia (27).

In 1949, shortly after the war, severe shortage of nurses was felt. In 1950, China Ministry of Health planned Secondary Nursing Education Program as "Zhongzhuan" to eliminate this problem. With this action, all nursing training programs relegated from undergraduate programs to secondary level (vocational) training (27), and no school held undergraduate program in nursing for 30 years. This program was a kind of hospital-based educational program in which

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applicants gained experience in clinical skills, mostly banal (25). In 1966, the nursing education in the State College of Peking, which was the only developed nursing education program at the undergraduate level by that time in China as well as the Zhongzhuan were cancelled. It is worth-noting that the reason was The Great Cultural Revolution in China (28).

The Zhongzhuan as the only program for training the nursing care was re-launched in 1976. In 1977, having held a symposium by Vice-President of China on science and training in Beijing, the universities of China restarted their activities (1) and academic nursing education was started in Diploma level in 1980 (26). In 1983, Tianjin Medical College started the first academic nursing program, as "Dazhuan", in associate degree after the Cultural Revolution (29).

In 1984, the aggregation in China Ministry of Health and Ministry of Education formed new academic educational programs in nursing: the nursing Zhongzhuan program (diploma), Dazhuan (associate), and Benke (undergraduate). The applicants must pass the national examination in all these programs and they are taught general nursing courses (30). Early in 1990, Beijing nursing school of Beijing Medical Sciences admitted the first master applicants. The first PhD course was held in collaboration with John Hopkins University in Baltimore Maryland and the Peking Union Medical College in Shanghai, and registered students for the first time in 2004 (28, 29, 31).

As mentioned before, there are three education programs in China; Zhongzhuan (diploma), Dazhuan (associate), and Benke (undergraduate), explained in the following:

3-1- Zhongzhuan program or the nursing programs of health schools

These programs are based on the disciplines and structures of vocational schools, whose objective is training helpful human resources to provide some care services on health. The applicants can apply for these programs, which constitute the backbone of the health care system, through two main ways. The first way in which the applicants can apply after middle school lasts 4 years. The second one in which the applicants can apply during high school (the second or third grade) lasts 3 years (1).

After graduation, after 3 or 4 years, the graduates are 17-18 years old, and hence, there is a concern that, these nurses are so young that they may not be able to decide appropriately in acute situations of caring the patient (32). It can be said that these programs aim at training nurses with technical skills (25). After graduation, the students must take the national examination to receive the work qualification certificate (1). In the nearby past (in 2000), 99 percent of 1.2 million nurses in China were graduates of these programs (25). In 1998, 530 nursing schools provided this program (26), from which 40000 people were graduated (32). Now, 1.3078 nurses serve in China among whom 25.6 percent have degrees of these programs (28).

3-2- The Zhuanke or Dazhuan Program

To enter this program, which is equivalent to associate degree in the United States, it is required to have diploma (high school degree), and it aims at preparing the clinical specialists in order to care the patients in bedside (1). This educational program lasts 3 years and those who gained the appropriate rank in the examination are eligible for this program.

The Dazhaun nursing educational program is provided in two forms. One is a four-year continuous form in which the classes and educational processes are held in the same centers that hold Zhongzhuan, and the other form is a 3-year program whose applicants are

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full-time students with no background in nursing (28).

The graduates of this program, like those in the Zhongzhuan program, must gain the appropriate rank in order to receive the certificate of competence. The graduates of this program have a chance to promote; they can enter the Benke programs, the undergraduate nursing program, through taking another exam. It is worth noting that there is an intense competition to enter the Benke level. Being accepted in Benke examination, the students are required to continue their studies for 1 or 2 years. However, about 42% of nurses in China were graduated from the Dazhuan program (1). Annually, 1000 nurses were graduated from Dazhuan program till 1999 in China (32).

3-3- The nursing undergraduate program or Benke

This program has been launched since 1983 in the department of nursing in Tianjin University (25) and can be considered as a part of medical education in China since the graduates can finish their studies in Medicine (32). The applicants first take the national entrance exam and then enter the university according to their rank and due choice. Benke lasts 4 to 5 years for those who apply for that directly after high school (1). The curricula, like those in Medicine, are first physiology-based and then some courses on diseases are provided. The physiology-based courses are offered in the first 2.5 years and then, the courses on diseases or clinical courses are offered to students who pass one year as internship in basic nursing, or principle and techniques of nursing, internal diseases, surgery, children, and obstetrics and gynecology. The graduates are employed as nursing trainers and nurse managers, and a few care the patients in bedside directly (26).

The nursing school of Peking Union Medical College has changed the curricula from the medical model to nursing model, under the supervision of the Ministry of Health, since 2003. However, Benke educational program (nursing undergraduate program) is mainly influenced by the nursing educational methods in western countries; for example, the nursing diagnoses and their structures as well as care system courses such as community health, and also the way of developing the major are influenced by the western models (27).

The graduates could apply for a job without taking the exam of competence certificate until 2008. But, since 2008, it was approved that these graduates must take the exam as well (1). The graduates of this program have a better career prospect in China rather than the graduates in other programs, and can serve in Chinese top-notch hospitals or continue their studies at master level of education, management, or as currently presented, the nursing PhD. About 80% of the nurses in China are graduates in Benke (1).

3-4- The nursing master program in China

The higher education programs in China have not been developed yet, and should pass a long way to reach the developed countries' (33). The first nursing master program was launched in Beijing University in 1992. In 1998, only 5 schools trained nurses in master level (26), and only two more schools joined these schools till 2000 (27). The requirements to enter this program are so hard and include taking the essay test, having the clinical experience (at least 2 years), and sufficient nursing skills (25, 33).

The nursing master program in China lasts 3 years and is full-time, and is aimed at training nursing trainers for teaching in undergraduate and master levels. It also aims at educating researchers, managers, clinical specialists, and experts on promoting health and preventing diseases (25, 33). The graduates can apply for jobs in management, research, or nursing

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education (33).

3-5- The nursing Ph.D. course in China

The first nursing Ph.D. course in China was launched in 2000 in Yale College, affiliated with Yale University, in Nursing Sciences, but it failed to get approval from the federal government (33). In the same year, the first Ph.D. course was launched in Sun Yat-Sen Medical University. However, Yale University, in 2004, replaced the Nursing Philosophy (PhD) with Nursing Sciences (PhD) in order to develop its educational courses (34). The PhD students pass some courses in developing knowledge, research methods, statistics, and health policies, and present their dissertation in one of challenging specialized topics. In addition, those interested in continuing their studies in PhD level have to move to Hong Kong or other countries due to the admission limitations and training PhD students in China (34).

3-6- Nursing education challenges in China

The most important challenges in nursing education system are as follows:

- The medical education model plays currently an important role in nursing education. Administering this method led to limitations in developing nursing as a profession, so selecting and administering a model according to Chinese culture and history, a model that can meet the condition in China is one of the most important challenges in Chinese educational system (1).
- The second challenge in nursing education system in China is discrepancy between needs and the nursing education system in this country (27). In other words, concerning the increasing number of the elderly in this country, there is no certainty that this system is training appropriate nursing forces.
- Considering inattention to establishing higher education levels in China, there is an urgent need to launch and develop these levels in this country. Accordingly, the lack of faculty members and the proficient faculty members for training students in associate and undergraduate level is one of the other challenges in China.
- There is no integrated relation between different courses, the planners try to specify line between different majors of medical group, and there can be found no holistic view to man (1).

Discussion

Comparing Iran and China in nursing education, we may find different similarities and differences. They both have a long history on nursing and nursing education; however the Chinese have a longer history in modernizing their nursing education system. Both systems are influenced by the education systems of western countries, particularly America, England, and Canada, have no clear professional identity, and have a medical model. Increasing the number of colleges in undergraduate and master levels, both countries face an intense shortage in number of proficient faculty members. Both attempt to increase the number of undergraduate, master, and PhD graduates to provide their required faculty members, however these attempts are more significant in Iran, and it seems that the Iranian were more successful in this matter. There are three types of nursing education in both countries in order to train proficient human resources to serve the patients in bedside; in Iran, the diploma type (associate nurse assistant) and associate degree are outdated while in China, they are continued. Therefore, the period of nursing education programs are different in two countries; in China, it is 2-5 years, but In Iran, it takes 4 years.

The applicants in both countries are required to take the entrance exam. In both counties, Ph.D. students' admission is performed

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carefully through several stages. Nursing courses in both contain basic sciences and nursing courses including the adult health, mental health, children, and obstetrics and genecology. In both, women constitute mainly the specialists, students, and trainers of nursing. Managing the gender balance, Iran has done some valuable actions so that the number of men being admitted in this field is increasing. The gap between theory and practice is a great challenge suffering both countries' nursing education systems. However, in China, students have better educational facilities. Neither of these countries have a ranking test similar to that of western countries, particularly America. Nevertheless, unlike Iran, China holds the test of competence certificate (RN).

Conclusion

We may use the two countries' capabilities and educational experiences in order to improve the quality of nursing education in the other country, and hence, we may achieve the ultimate goal of nursing, i.e. providing nursing care with high quality to patients.

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