

# A Comparative Study of Doctoral Nursing Education Programs in Iran and Japan

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## Abstract

**Background:** The quality assurance of doctoral nursing education programs is one of the priorities of educational systems, with significant effects on the development and improvement of educational programs. Therefore, identifying the strengths and weaknesses of these programs through comparison can be useful.

**Objectives:** This study aimed to compare the doctoral nursing education programs in Iran and Japan.

**Methods:** In this descriptive and comparative study, which was based on the model proposed by Beredy, the Iranian doctoral program in nursing education was compared with that of Japan in four stages of description, interpretation, juxtaposition, and comparison.

**Results:** The doctoral nursing education program in Japan was older than its Iranian counterpart, based on historical records. The challenges of nursing education in Iran included the student admission system, inflexibility of the program, and emphasis on theoretical education. The strict rules regarding article publication in International Scientific Indexing (ISI) journals and the higher number of credits in the Iranian program, compared to its Japanese counterpart, were among the strengths of Iran's program, increasing the level of students' knowledge and preparation for research activities.

**Conclusion:** Comparison of the educational systems of Iran and Japan indicated the need for a more flexible and community-based curriculum in Iran.

**Keywords:** Nursing, Education, Curriculum, Iran, Japan

## Background

Universities, as executors of educational systems, need to adapt to major changes occurring around them. These organizations can have productive global competitions for the purpose of assessment and quality assurance (1). Medical education is part of the higher education system, dealing with human life. The health of the community depends on the quality of education at universities. Nursing is one of the complex domains of medical sciences. If appropriate and high-quality educational programs are not designed for the students, it can cause irreparable damage to the health of the community and compromise the scientific reputation of the university and

its graduates (2). Therefore, nursing schools, as part of medical universities, need to consider quality assurance, continuous evaluation, and promotion (3).

Organizations, such as the World Health Organization (WHO), have called for the improvement of standards for newly graduated nurses. The changing needs of life in today's fast-paced world emphasize the need for educational developments and innovations, especially in universities and higher education institutions; the nursing curriculum is no exception (4). Currently, the main concern in the quantitative assessment of nursing PhD students is ensuring the quality of doctoral nursing programs (5). If a doctoral program is not systematically

reviewed, the nursing science and profession will not progress (6). As the evaluation of doctoral programs in nursing education requires continuous assessment and review, similar to any other training course, the use of a comparative method is helpful (7). Therefore, recognizing the strengths and weaknesses of educational programs and developing high-quality ones through review and modification can be useful.

Comparative studies are one of the research tools for the review and modification of educational programs and development of rational strategies to make use of others' experiences (8). Investigation of the evolutionary history of educational systems shows that most developed countries have benefitted from comparative research (9). Japan is one of the most developed and prominent countries in terms of higher education. Initially, nursing knowledge and skills were imported from developed Western countries, but through time, researchers and scholars were able to apply and modify this information in their educational system. Also, the customs and culture of the country were considered in the development of programs (10).

#### ***Doctoral nursing education programs***

The doctoral nursing education program was first developed at Columbia University in the United States in 1924. Later, a doctoral nursing program (11) with two areas of interest, including education and management, was established at New York University in 1934 (12). Besides, the doctoral nursing program was developed at Case Western Reserve University in Ohio, USA, in 1979 (13). Today, there are about 273 doctoral programs in more than 31 countries across the world (14). Currently, the doctoral nursing program includes two areas of study, that is, research-based PhD and doctor of nursing practice (DNP) (13). Generally, the nursing PhD program can be applied, based on two European and American models. In the European model, students complete the research projects individually or with the help of supervisors. On the other hand, in the American model, students must first meet some credit requirements for their doctoral dissertation and then complete their thesis guided by their supervising professors (15).

#### ***Challenges of doctoral nursing education programs***

Although implementation of nursing PhD programs has led to the promotion of nursing profession and health systems, there are several challenges in this area. The quality assurance of doctoral programs for nursing education is one of the priorities of educational systems, with significant impacts on the development and improvement of educational programs (16). In this regard, some Iranian studies reported the quality of nursing PhD programs to be at a moderate level (17). Also, in some studies, the graduates' incompetence to encounter the healthcare system challenges was highlighted (18). Similarly, the results of another investigation in Iran revealed that doctoral nursing programs could not meet the needs of clinical centers and that the graduates were

not in the right job position at the hospital (19).

In other studies, challenges, such as inflexibility of the program content, overlaps with other programs (16), and problems in the implementation of nursing education programs in Iran were described (20). Accordingly, the WHO called for the development of standards for newly graduated nurses (21). It seems that the experiences of advanced countries, pioneering in different educational domains, can help us deal with the existing problems in higher education systems while considering the cultural, political, economic, and social contexts (16).

#### **Objectives**

Since Japan is recognized as a developed Asian country in terms of higher education (4), the present study aimed to compare the doctoral nursing education programs of Iran and Japan to find solutions to the existing problems.

#### **Methods**

This descriptive, comparative study was conducted based on a well-known model proposed by Beredy. This model includes four stages of description, interpretation, juxtaposition, and comparison. In the description stage, systematic collection of data was performed. The curriculum data were collected by searching relevant articles, websites of universities, and the ministry of health websites. Next, the information collected in the first stage was analyzed in the interpretation stage (22). In the juxtaposition stage, the information was categorized and juxtaposed, and the research problem was investigated and compared with attention to detail to discover the similarities and differences of these systems and address the research questions in the comparison stage (23).

To collect the data required for this study, an extensive search was conducted in Persian and English articles, published between 2007 and 2020, using keywords, such as "nursing", "education", "curriculum", "Japan", "Iran", and "descriptive-comparative studies". The scientific databases and official websites included CINAHL, Science Direct, PubMed, Google Scholar, Iran Medex, SID, MagIran, and Noormags, as well as the websites of Iran's Ministry of Health and Medical Education, Ministry of Science Research and Technology, Japanese Nursing Association, and several universities in Japan (including Chiba and Oita universities). Finally, the data were collected, categorized, and compared. To verify the search process, the articles were reviewed by the three authors of this study (an assistant professor, an instructor, and an associate professor), who were faculty members of the school of nursing.

#### **Results**

In the present study, the doctoral nursing education programs of Iran and Japan were compared regarding their history, objectives, areas of interest, admission to doctoral education, curriculum, employment during study, funds, graduation requirements, and professional perspectives (Table 1).

**Table 1.** Comparison of doctoral nursing education programs in Iran and Japan

<b>History</b>	
<b>Iran</b>	For the first time, the school of nursing and midwifery, affiliated to Tabriz University of Medical Sciences, admitted three students through a national entrance exam in 1995 (24).
<b>Japan</b>	The first doctoral program in nursing education began at the University of Tokyo in Japan in 1966, based on health sciences. In 1988, a PhD program was established at St. Luke's School of Nursing in Tokyo, with an emphasis on nursing expertise (25).
<b>Objectives</b>	
<b>Admission to doctoral programs</b>	
<b>Iran</b>	Students are admitted through a national entrance exam or free admission. The conditions for participation in the exam include enrollment in higher education programs, that is, having a master's degree (MA), a professional doctorate degree, or higher degrees in line with the program (24). For free admissions, universities are allowed to admit 20% of the national entrance exam capacity (at maximum) among candidate graduates from MA programs under specific conditions. Admission of the students is also dependent on the confirmation of the educational council of the university. Changes in the field or place of study are not allowed for the admitted students (15). Upon admission, the candidates must attend an oral test in the form of an interview by the nursing board. The share of the written test and the interview score is equal to 50% of the total score (24).
<b>Japan</b>	Only graduate students can enroll in a doctoral program (26). In Japan, each university has established an independent set of admission criteria, based on which students are interviewed and admitted (27). The participants are often divided into two groups: young researchers aiming to learn research (in the second decade of life) and university coaches seeking a doctoral degree to promote their profession (in the fourth decade of life) (28).
<b>Credits</b>	
<b>Iran</b>	The program lasts four years and a half. The credits are fixed and the same throughout Iran. There are 45 credits within this program, including 19 specialized credits (core), six specialized elective credits (non-core), and 20 credits for dissertation (with a focus on qualitative research). Of 19 specialized credits required, 16 credits are presented in a practical format, and three credits are presented theoretically. Also, of six elective credits, three credits are presented in a practical format, and three credits are presented theoretically (24).
<b>Japan</b>	The program lasts three years (28). The credits are not fixed and vary from one university to another. For example, at the University of Tsukuba, 22 credits are required, while 21 credits are elective (29). On the other hand, 12 credits are required at Chiba University. The number of credits is low, and on average, about 13.6 credits (range: 6-23) are required; presentation of seminars and dissertations is emphasized in this program (25).
<b>Content of lessons</b>	
<b>Iran</b>	The credits are mainly theoretical and involve research, education, and theories of nursing; the practical aspects are limited (18). The specialized credits include the nursing science philosophy, nursing theories, management and leadership in nursing education, methodology and critique of qualitative and quantitative research, nursing management and leadership, nursing education systems, advanced inferential statistics, and special topics in nursing. The elective credits also emphasize on different areas of nursing, such as oncology, pediatrics, rehabilitation, school health, family and community health, and emergency care. The students are allowed to select six of these credits, according to their master's thesis or guidance of their supervising professors (24).
<b>Japan</b>	The curriculum is divided into two parts, including basic science courses and specialized courses. The basic science courses emphasize on improving the students' qualifications for research, including the application of sciences in nursing, research methodology, nursing education, clinical research, and advanced nursing education seminars. On the other hand, specialized courses focus on the development of nursing skills to improve the status of community health systems by resolving problems and implementing nursing interventions, especially for the physical and mental health problems of children at school age. These credits include specialized credits in nursing science, seminars in nursing, science ethics, and professional seminars on evidence-based nursing and advanced practical nursing (29).
<b>Employment while studying</b>	
<b>Iran</b>	The doctoral nursing education program is full-time; therefore, the employment of students is prohibited (30).
<b>Japan</b>	Education is provided in two forms: full-time and part-time. According to a study in Japan, 38.4% of PhD students are employed and work part-time (31).
<b>Graduation requirements</b>	
<b>Iran</b>	The graduation requirements are as follows: passing a comprehensive exam after completing the program (twice a year) (5); defending a dissertation; and publishing articles in well-known scientific databases, including the Information Sciences Institute (ISI) (18).
<b>Japan</b>	The graduation requirements are as follows: passing the final exam, defending a dissertation, and publishing an article extracted from the dissertation in an academic journal (28).
<b>Professional perspectives</b>	
<b>Iran</b>	Although in the curriculum of nursing PhD program, employment of Nursing PhD graduates is defined in universities, hospitals, health centers, rehabilitation and welfare centers, research centers, headquarters and nursing planning centers, private centers, and growth and knowledge-based companies (24), most graduates tend to work at universities (15). Besides, the job positions and tasks have not been defined in hospitals for students holding a PhD degree in nursing (32).
<b>Japan</b>	Most students tend to work in academic environments (25). However, the available academic positions are not adequate for the high number of graduates (26).

## Discussion

The admission systems of Iran and Japan were found to be different. In Japan, each university can admit students

independently through interviews, based on their policies. The universities' autonomy in student admission helps

them achieve their goals and increases the competitiveness of universities in attracting students, which in turn enhances the quality of education. On the other hand, PhD students in Iran are selected in two stages, that is, a written entrance exam, followed by an interview, regardless of the individual's average score at the MA level and clinical experience. It should be noted that student admission through a national exam may attract less motivated students (33), whose only purpose for participation in such exams is to escape clinical practice (34) and work at universities to earn higher salaries.

Moreover, some researchers stated that enrollment of inexperienced and unmotivated individuals in the nursing profession is not suitable at higher levels of education, research, management, and planning and cannot lead to improvements in the quality and development of nursing services. Accordingly, work experience in nursing and motivation must be considered as the essential criteria for the admission of PhD students (19). According to a study by Tazakori et al., at least two years of work experience in clinical practice can help us have a better understanding of clinical difficulties (20).

In the nursing doctoral curricula of Iran and Japan, the credits showed significant differences. Unlike Iran, the credits were not fixed in the nursing PhD curriculum of Japan and varied from one university to another. It should be noted that centralized PhD programs can provide opportunities or pose threats to an educational system. Indeed, the coherence and consistency of credits in a country can provide the students with similar education programs without any discrimination. However, students in Iran cannot choose some credits, which is considered a drawback of the educational system. On the other hand, students in other countries can choose half of the credits in the program, based on their interests and requirements of their dissertations. This issue can increase the students' motivation and effectiveness of the program and also help meet the needs of the community.

Besides, attention to the students' interests is an important issue that should be considered in the selection of credits (20). In Japan, the duration of training is shorter, and the number of credits offered for doctoral nursing is lower than Iran. Considering the low number of credits, PhD students are not prepared to conduct research independently or increase the available nursing knowledge (28).

Iran and Japan are significantly different in terms of the curriculum of nursing doctoral programs. One of the strengths of the nursing doctoral curriculum in Japan is the presentation of advanced clinical seminars in particular domains (29). However, in the PhD program of Iran, most credits are theoretical and related to topics other than clinical problems; also, there are only six elective credits related to specialized clinical issues (30). Therefore, the inclusion of practical credits in the curriculum can help reduce the existing gap between education and clinical practice (18).

Moreover, some credits in Iran's nursing doctoral

program overlapped with some credits of master's degree programs. It is obvious that repeated topics and contents can reduce the learning motivation and efficiency of students (15). One of the responsibilities of PhD students in nursing is educational planning and involvement in specialized and professional planning. However, students do not often acquire the required skills in this domain, because credits, such as educational management, are not presented practically. The credit, entitled "nursing theories", mainly involves criticism and review, while students in other countries can conceptualize, develop, test, and validate different models (20).

The issue of research in PhD programs is of utmost importance in both countries. A researcher cannot distance him/herself from research to become a prominent scholar or conduct applied research for health promotion of the community (33). It should be also noted that the primary goal of PhD programs in Iran is to prepare the students for research. Nevertheless, writing articles can rarely educate effective teachers; this issue is of particular importance in educating students who want to become faculty members in the future (1).

The DNP program has not yet been established in Iran and Japan. In Iran, considering the content of the nursing education curriculum, which is not clinically oriented, the need to establish DNP programs is strongly felt. It seems that the implementation of DNP programs can play a significant role in eliminating the gap between education and clinical practice and promoting performance-based care (19). However, there are some criticisms about these programs, such as confusion about the titles and roles (35), lack of job descriptions for bedside care, absence of thesis or research projects in the curriculum, and risk of marginalizing doctoral nursing graduates (13). Therefore, it is recommended to establish these programs with more accurate planning to meet the requirements in the coming years (12).

Employment is considered as one of the challenges of PhD graduates. Job opportunities after graduation seem to be similar in Iran and Japan. Therefore, the majority of graduates are inclined to work in academic settings rather than hospitals due to unclear descriptions of tasks and responsibilities, vague organizational roles and positions, low salary and benefits, and the gap between theory and practice in the PhD program. Also, the course curriculum focuses on education, research, and management at a strategic level. On the other hand, graduates often feel that they have insignificant impacts on improving the healthcare system. Generally, graduates cannot be expected to deliver direct professional nursing care as a practitioner in specific clinical contexts. Therefore, it is advisable to employ these graduates in their areas of expertise at higher levels of education, management, research, and nursing planning (19).

Although simultaneous education and employment can lead to role duality, physical stress, fatigue, irritability (36), absenteeism, reduced use of library resources (37), and reduced academic performance (38), part-time education



in Japan gives the students an opportunity to work while studying. This consideration enhances the graduates' functional and experiential skills, while providing the living costs, and may also improve post-graduation employment (37).

### Conclusion

Since comparison of different educational systems can improve the quality of education (39), this study compared the educational systems of Iran and Japan. Several differences and similarities were addressed in this study. Based on the comparison of nursing PhD programs, it seems that Japan's system has better outcomes, associated with the universities' independence in student admission; design of curriculum credits that lead to a constructive competition among universities and their progress; optional credits selected by the students based on their interests and needs; clinically oriented course content; and variety of programs, including part-time education programs for the employees.

It is recommended that Iranian educational planners, as well as the educational authorities of countries with shortcomings in doctoral nursing programs, use the findings of this study to review their doctoral nursing education programs.

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