

## Original Article

# Comparison of Undergraduate Nursing Education in Iran and George Washington University

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## Abstract

**Introduction:** The strategic plans of nursing are in line with training the nurses that are able to make positive changes in the caring environment and to improve the life quality of individuals, families, and community. Each country has different methods of nursing education, which are rooted in its customs and traditions. Comparing different educational systems promotes the content and quality of the curriculum. This study performed a comparative study of nursing education in Iran and George Washington University.

**Methods:** This comparative study was conducted in 2016 to compare the constituents of Bachelor of Science in Nursing (BSN) program in Iran and George Washington University in the United States. The Beredy model was used to compare the collected data, which encompasses description, interpretation, juxtaposition, and comparison.

**Results:** Although nursing education in Iran is mostly influenced by education models in the United States, the two countries have major differences in their nursing education system. BSN in Iran is a four-year program and has a semester system. The students are selected from among the candidates of experimental sciences through a nationwide university entrance examination. In all universities across Iran, one curriculum is presented, and there is limited flexibility in the program due to environmental conditions, while BSN in the United States has a two-year program, and student admission regulations are formulated independently by each university. The number of compulsory units is 130 units in Iran and 180 units in the United States.

**Conclusion:** The nursing curricula in Iran and George Washington University have differences and similarities. Thus, considering the cultural, social, historical and economic differences, comparing them can be helpful to solve the problems and challenges in nursing education.

**Keywords:** Comparative study, Nursing education, Statistical model

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## Introduction

All around the world, countries aim to preserve and promote the health of their citizens. Training the people who are responsible for patient care is a fundamental need in any healthcare system. Despite widespread inequalities in the political support, material resources and basic education systems, the nursing education level with regard to access to services and promotion of care quality has been improved (1). The macro-level nursing education programs are aimed to produce competent nursing graduates that create positive changes in the caring environment and proceed to promote the life quality of individuals, families and community (1, 2).

Nursing education, as a part of higher education system, has been increasingly developing in the world in recent decades, causing concerns for the quality of nursing education. Moreover, it is faced with such challenges as competency of graduates, quality of education, and curricula of nursing major (3). On the other hand, it is of great importance owing to its close relationship with the people's health, and it is necessary for nursing education to move toward quality assessment (4).

The developed countries in the west, with appropriate and strong primary and secondary educational systems, have established a paradigm in higher education institutions in which most faculties and universities are responsible for training leaders in nursing education, government and research. Other developing countries are also trying to promote and reinforce their nursing education system by adopting these methods and translating effective strategies (5).

Nursing education has been initiated at George Washington University for more than 95 years. Henry Suzzallo, the first dean of the School of Nursing, introduced the first nursing course in 1918 and established the first nursing school in 1922. BSN was presented in 1923 and School of Nursing became independent in 1945 (6).

Nursing education in Iran was started in Urmia by missionaries in 1815. The first nursing school was established by a group of missionaries in Tabriz with a three-year nursing program, accepting female candidates with high school diplomas in 1816. The first BSN program was founded by Firouzgar Higher Institute of Nursing. Nursing education has taken effective steps toward holistic community-oriented philosophy since 1986. This program was finally approved by the Supreme Council for Planning of the Ministry of Culture and Higher Education in 1985. After establishment of the Supreme Council for Medical Sciences Planning in the Ministry of Health and Medical Education, this program

was determined to be supervised by the mentioned ministry. The program was revised in 2003, approved by the above-mentioned council in 2005, and revised again in 2014 (7, 8).

Both countries have common basics and principles that have made their comparison possible. Nursing program in Iran has initially been adopted from the American nursing education. Both countries have undergone rapid sociopolitical changes, bringing about changes in the structure of nursing education. Both countries have also experienced severe shortage of nurses (2, 9). Yet, the Iranian government is directly involved in nursing education and guiding it (10). Today, both countries are committed to improving nursing education to resolve the problems ahead of health services and healthcare promotion. On the other hand, high-quality programs will train competent students in the future. To present a qualified curriculum, educational institutions need to revise and modify it regularly and dynamically show appropriate reactions against external factor changes in order to play their pivotal role, as an important tool, in the development and progress of learners aiming to achieve educational outcomes (4).

Comparing different education systems can help to improve the content and quality of curriculum (11). Since the education system of each country can be considered an investment for the future generation to develop human abilities, considering the successful education systems of the world is indicative of institutionalization of an efficient system. Therefore, using the experiences of developed countries in different educational domains, taking into account the cultural, political, economic and social context of Iran, will enable us to solve the problems of higher education system and to improve the curricula. Given the significance of attention to graduates, their future career and their capabilities in providing services as well as the effect they have on other students, colleagues, healthcare program and community, we made an attempt to compare the components of BSN in Iran and George Washington University. This comparison is hoped to discuss the similarities and differences of these two systems and present suggestions for promotion of BSN in Iran.

## Methods

This descriptive-comparative research was carried out using the Beredy model in 2016. This method is composed of four stages: description, interpretation, juxtaposition and comparison. In the description stage, the research events are prepared for review and analysis in

the next stage based on the evidence and information. In the interpretation stage, the collected data are analyzed. In the juxtaposition stage, similarities and differences are classified and juxtaposed in order to create a framework for comparison. Finally, in the comparison stage, the research problem, considering the similarities and differences, and responses to research questions are analyzed and compared (12).

Since various sociocultural factors affect the foundation of educational systems, recognizing the study context is of great significance. Based on the study method, the history and current status of BSN in Iran and George Washington University, owing to relative structural and content similarity of the discipline, were selected for comparison with each other. To achieve the required information, English and Persian databases (CINAHL, Science Direct, PubMed, Google Scholar, Barakatks and Magiran) were searched from 2010 to 2016 using such keywords as comparative analysis, nursing education, curriculum and the Beredy model. Moreover, the Iranian Ministry of Health and Medical Education (nursing education program approved in 2014), Ministry of

Science, Research and Technology, Nurses Association and George Washington University sites were searched. After accurate analysis and study of the curriculum, first, the philosophy, mission, values, responsibilities and career status of graduates were described and compared in both programs. Then, both programs were analyzed and compared with regard to admission requirements, length of program, arrangement of units and educational and assessment methods.

## Results

The results of comparison of the nursing education system of both systems showed that nursing education in the philosophy of George Washington University is primarily based on theory and research, while in Iran the focus is more on Islamic spirituality and culture (Table 1).

The components of curriculum included definition of the program, values, mission, perspective, objectives and expected capabilities, roles and duties of graduates, admission requirements and course specifications, which were investigated in both education systems (Table 1-5).

**Table 1. Comparison of the philosophy, perspective and mission of BSN program in Iran and George Washington University**

| University        |             | Philosophy, perspective and mission   |
|-------------------|-------------|---|
| George Washington | Philosophy  | The philosophy of this program is training nurses who act according to theory and research. It is rooted in supreme values, variety, society, social justice, honesty and creativity. The variation of roles requires information about different areas of knowledge, humanities, art, content and discipline-specific processes, with an emphasis on interdisciplinary knowledge and involving students in a wide range of ideas and sciences. Nursing profession requires the knowledge derived from research, social justice, support and lifelong education. The faculty members believe that the teaching style should be compatible with the knowledge of learners' learning style. The BSN program focuses on critical thinking, analysis, communications and cultural variation. This program enables an individual to take responsibility of leadership positions and evidence-based action. Nurses cooperate with other organizations to promote the health quality of society. |
|                   | Perspective | To be pioneering in the realm of health promotion and healthcare through new knowledge of nursing, training and practice.   |
|                   | Mission     | Promotion of nursing knowledge and practice via producing knowledge and training future leaders to address the local, national and international needs (13).  |
| Iran              | Philosophy  | Nursing is an inseparable part of the health team. Islamic culture, spirituality and ethical considerations have been emphasized in all dimensions and should provide a ground for learners to grow spiritually, in addition to meeting their needs. Nurses are responsible to supply, keep and promote the health of people in the society, which can be achieved by a focus on updated knowledge and attention to the society needs and geographical and climatic conditions. Education is a bilateral process that is based on the learner/teacher interaction to achieve educational objectives. Nursing education should be presented in line with personal development and preparation of students for lifetime learning and professional development.  |
|                   | Perspective | During the next two decades, the BSN program, in line with the changing needs of societies, will be able to dynamically acquire the regional and global standards of nursing education. The BSN graduates will achieve a defined and effective position in presenting healthcare in all levels, from prevention to rehabilitation, in the health system of the country. The efficient and cost-effective services will be provided to enhance the health in society and to improve the life quality of clients.   |
|                   | Mission     | The mission of nursing education is training nurses that present nursing services required for all people in the society, from prevention to rehabilitation, based on standard methods, updated knowledge, skill and efficiency, belief and commitment, compassion, kindness, professional ethics and effective professional communications. This program trains nurses that are committed to self-directed learning and update their knowledge and skills in all dimensions during their service (8, 14).  |



The comparison of general objectives of nursing education in Iran and George Washington University indicated that the general goal of nursing education in Iran is the nursing roles of supplying, maintaining and

promoting health, while this issue is described and emphasized more completely in George Washington University (Table 2).

**Table 2. General objectives of BSN program in Iran and George Washington University**

| University        | General objectives   |
|-------------------|--|
| George Washington | Integration of art concepts and different sciences to promote health and management in complex nursing care conditions, application of leadership skills and decision-making in providing cares and supervision over nursing practices in various domains, providing patient safety and improving the quality of healthcare through high-quality services, integration and coordination of knowledge, nursing processes and skills, information and patient care technologies and communication tools to facilitate clinical decision-making and provide safe and efficient care to the elderly, describing the effects of fair and impartial health measures, and economic, legal, political and cultural factors in healthcare presentation by showing effective and professional relationship and cooperation to optimize the health outcomes, supporting disease prevention strategies at personal, familial and societal levels for the sake of health promotion, attention to the principles of professional behaviors, which is a combination of altruism, independence, integrity, social justice and respect to various cultures and human dignity, and considering critical thinking, clinical decision-making and the skills required for comprehensive, decent and evidence-based care for the patients (15) |
| Iran              | Training nurses that are able to provide healthcare, educational, research, counseling, managerial, support and rehabilitation services to supply, maintain and promote personal, familial and societal health (7)   |

The number of units in the curriculum of George Washington University is much more than that of Iran, and admission requirements are also different (Table 3).

Although the number of apprenticeship and internship units in Iran is much more than that of George Washington University, the titles of units have much in common (Table 4).

**Table 3. Admission requirements, educational methods and techniques and courses presented in BSN program in Iran and George Washington University**

| University        | Admission requirements, educational methods and techniques and courses presented in BSN program   |
|-------------------|---|
| George Washington | <p>The admission requirements for BSN candidates include a mean score of <math>\geq 3</math>; otherwise the candidates need to pass the prerequisite courses. The students with a score of 2 need to pass almost all prerequisite courses of BSN in the summer before the start of first semester in fall. All prerequisite courses, including English language, mathematics, chemistry, nutrition, anatomy and physiology, and microbiology have to be taken and passed during three months in summer (8, 15). The educational methods and techniques applied in George Washington University include learner feedback, class observation, computer classes, use of educational technologies (PowerPoint, etc.), group projects, student self-learning, attending conferences, e-learning and professional workbooks (13, 14).</p> <p>In George Washington University, students need to pass 180 units (89 general units on written communication in English, problem solving, visual, literary and theatrical arts, individuals and society, and 23-36 units on natural sciences like chemistry and microbiology), basic sciences courses (anatomy, physiology and chemistry basics I, II and III, microbiology, nutrition, basics of computer science and statistics) and 91 units for special courses. Students may also choose more than 180 units, including research on a specific nursing problem (13, 16).</p> |
| Iran              | <p>BSN is the first academic level of nursing education. The students are selected from among the candidates of experimental sciences with academic requirements, physical and mental health, based on the regulations, through a nationwide entrance examination.</p> <p>The educational methods and techniques include different intrasectoral, intersectoral, hospital and inter-university conferences, seminars, small group discussions, educational workshops, journal club, healthcare report, morning report, working and educational rounds, use of e-learning and educational methods considering the facilities and simulations, cooperation in training the lower ranks, self-learning and other educational techniques based on the needs and objectives (7).</p> <p>All courses required for BSN consist of 130 units, including 22 general units (theoretical foundations of Islam, Islamic ethics, Islamic revolution, literature, general English, physical sciences I and II, family and population, history of culture and civilization of Islam and Iran), 15 units on basic sciences (anatomy, physiology, genetics and immunology, biochemistry, microbiology, parasitology, basic biostatistics, research in nursing and IT in nursing), 54 units on special courses, 18 units on apprenticeship and 21 units on field apprenticeship (10).</p>   |

Table 4. Apprenticeship and clinical assessment units of BSN in Iran and George Washington University

| University        | Apprenticeship and clinical assessment units |   |
|-------------------|--|---|
| George Washington | Apprenticeship units                         | Health status analysis: 30 hours in practice room, basic skills to perform nursing cares: 30 hours in practice room and 60 hours clinical practice, patient care I: 120 hours clinical practice in practice room, patient care II: 120 hours clinical practice in practice room, participation in community health: 60 hours practical experience (healthcare centers), professional performance: 240 hours clinical practice, family nursing, fertility and child: 120 hours clinical practice in practice room, mental health nursing: 120 hours clinical practice in practice room.  |
|                   | Clinical assessment                          | Each student is assessed by the trainer in terms of clinical performance in the middle of the term and at the end of a three-month period, and strengths and weaknesses as well as appropriate recommendations are provided, if necessary. Self-assessment is also done by the student and is registered and submitted to the teacher. Any concern about the performance and behavior of student during the assessment sessions are discussed, and the trainer reminds the student, who is at the risk of getting a warning card, of a set of specific guidelines and goals.  |
|                   | Specialized spaces and areas required        | Hospitals, outpatient healthcare centers, mental health centers, public health centers, social agencies, state schools and skill labs.  |
| Iran              | Apprenticeship units                         | Nursing principles and skills, maternal and pediatric health nursing, community health nursing, adults/elderly nursing I, II and III, nursing in common problems of Iran, healthy child nursing and pediatric diseases nursing, mental health nursing and mental diseases nursing, critical care nursing and clinical pharmacology. In the fourth year, 21 units on field apprenticeship are presented, including maternal and pediatric health nursing, community health nursing, adults/elderly nursing I, II and III, home care nursing, pediatric diseases nursing, critical care nursing, principles of nursing services management, and emergency nursing in crises and disasters (2 units). All apprenticeships are presented with special courses in the same semester according to the curriculum. |
|                   | Clinical assessment                          | Logbook completion, clinical assignment assessment, use of formulated form for performance assessment and further assessment by the trainer without any definite or predetermined process.  |
|                   | Special spaces and areas required            | Educational hospitals, internal-surgical, pediatric, obstetrics and gynecology, psychiatry, emergency and critical care departments, skill labs equipped with mannequins, biochemistry, physiology and microbiology labs and urban and rural healthcare centers.  |

Although the assessment method and expected outcomes in the curriculum of Iran are more comprehensive, one should expect to see their practical implementation

because the first program (started in 2014) has not been finished yet (Table 5).

Table 5. Operational strategies of the curriculum and outcomes expected from BSN graduates in Iran and George Washington University

| University        | Operational strategies of the curriculum |   |
|-------------------|--|---|
| George Washington | Assessment method                        | The BSN Coordination Committee (BSNCC) is responsible for assessment of BSN program. This committee assesses the students' competence after admission, at the end of the first year, at the end of the last year and one year after graduation.<br>For satisfactory development in schooling and graduation, the BSN students should acquire score 2 at university and faculty in all courses. During two semesters after initial enrollment, students should pass 45 units satisfactorily. In the case of lack of satisfactory progress based on the defined criteria, the students are referred to the committee and necessary points are reported to them to eliminate the deficiencies. If required, the clinical course is repeated, or extra sessions are added. Finally, if the students do not fulfill the required conditions, they will be expelled from university (12). |
|                   | Outcomes expected from BSN graduates     | Cooperation with other healthcare providers in planning, implementation and evaluation of healthcare services and self-directed assessment of proper use of resources and research findings to solve healthcare problems in nursing, monitoring and assessment of patient-oriented and holistic care, which is indicative of understanding human growth and development, pharmacology, treatment management and nursing management in disease chain and health during lifetime (13)   |
| Iran              | Assessment method                        | Assessment is done periodically, regularly and ultimately through written and oral examinations, interactive computer examination, structured field examination, directly observed procedural skills, 360-degree appraisal test and workbook assessment. Assessment of academic achievement in Iran has not been clearly defined.   |
|                   | Outcomes expected from BSN graduates     | Establishing an appropriate and professional relationship with patients, companions and colleagues, presenting the patients' needs in the form of nursing diagnoses with a research view, formulation of healthcare program and its implementation and assessment, and coordination of a healthcare team to provide nursing care (17)   |



The following points seem to be important after studying each element accurately and comparing and contrasting similarities and differences.

In George Washington University, top seminars and research projects (1-3 units) are presented only to top students. With rapid advancement of nursing information, top talents program has been created with more emphasis on research. Due to inability of nurses in solving critical problems, use of Problem Solving for Better Health (PSBH) program has been started since 2013. The gap between the nurses' health information and modern technology made it possible to add basics of computer course (European Computer Driving License/ International Computer Driving License (ECDL/ICDL) to BSN prerequisite courses in 2012 (16), to pay more attention to problem solving and considering 8 units about patient care, nursing diagnoses, patient problem solving and developing critical thinking, to add 15 units on visual, literary and dramatic arts, since nursing is a major mixed with science and art to polish the soul and present better services, and 15 units on the individuals and society to provide healthcare services to the people in different societies, to pay attention to the value of time and maximum use of it, to avoid unnecessary closures, to present the courses during the summer semester and earn BSN degree during two years, and to make it possible for the students with B.S. degree in other majors to graduate sooner (5 semesters) (18, 19).

In Iran, there is a gap between theory and practice, and most of the personnel of clinical centers do not have an educational attitude. There is shortage of physical space, and nursing major is not specialized. In addition, the finals are eliminated from nursing, or registered nurses (RN) exam is not administered, while nursing schools are established excessively without considering the equipment and conditions. Finally, no accuracy is regarded in the interview before enrollment, and there is less critical thinking available.

In BSN program in the United States, field apprenticeship has not been mentioned separately, while it is presented in the fourth year during two semesters in Iran. In the nursing curriculum of George Washington University, the cooperation and health of clients, family and society have been taken into consideration (9 units). Professional regulations in the curriculum have been regarded independently (12 units) (20). As for the nursing education in Iran, patient care is merely theoretical based on the nursing process and is not cared for in the educational and treatment centers. The dominance of treatment-centered view in nursing has affected education, and prevention type I and III have not been much taken into account. No theoretical, practical or

workshop units have been considered for application of medical equipment.

In Iran, the program, units and topics have been described in details. In the basic, major and special courses, 1.5 units have been allocated to nursing ethics and professional relationship, which prepares the students for learning ethical values, maintaining Islamic values and respecting the clients and their families. Among the courses of IT in nursing major, a one-unit course has been considered for analysis of the health status, learning process and principles of teaching the clients (7, 16).

To adapt the content of program with responsibilities of graduates at George Washington University, ethical considerations and professional regulations, research roles, and caring, educational and health roles have been regarded in the curriculum. Moreover, patient assessment in the course "analysis of health status", pharmaceutical information in nursing (5 practical units), cooperation and health of clients, family and society (9 units), healthcare for the clients from different cultures (3 units), healthcare for the elderly, written communication in English (English as a scientific language) and prerequisite courses (10 units) have been allocated in this program (11, 13).

In Iran, managerial and research roles have scarcely been considered in the curriculum. Patient assessment has been considered in the health status analysis course. Patient care based on nursing process is merely theoretical and is not observed in educational and treatment centers. Moreover, professional ethics course and pharmaceutical calculations (1 unit) have been considered, but counseling and rehabilitation roles in nursing courses are not highlighted, while training the clients and families is less emphasized, and no theoretical or practical course and workshop have been determined for application of medical equipment (15).

## Discussion

A noticeable finding in the analysis of BSN programs in these countries is their comparison with each other as to how they try to improve various areas in nursing education and to provide education to all community.

In the School of Nursing of George Washington University, the philosophy of BSN program has completely been described in line with the overall objectives of the program. The major, history, and objectives have been clearly defined. The content of the program is in line with the philosophy and objectives; the admission process has been clearly described and the objectives have been conspicuously clarified (18, 19). In Iran, the assessment process and necessities of the

program have been mentioned, and community-oriented care has been emphasized. Various new teaching methods have been mentioned, and the philosophy, perspective, and mission of the program have been described in the curriculum. The perspective of the program has been well-expressed considering the existing facilities, and objectives have also been described clearly. As for internal-surgical and special diseases as well as related nursing cares, enough attention has been given, and sufficient courses have been allocated (6, 21).

As for the mission of BSN program in Iran, issues such as knowledge for academic promotion of nursing and international needs have been less emphasized, and prevention and rehabilitation have been less taken into account in the courses as missions of the program. The curriculum does not have adequate flexibility based on the existing conditions. However, nursing care in BSN content is limited to medical advice or health education at different levels of prevention and rehabilitation, and teaching a special nursing care based on the healthcare knowledge and cultural factors of the community is still ignored, which has undermined the presentation of complete and exclusive services to patients as well as implementation of specialized nursing process, altering the services from patient-centeredness to disease-centeredness and creating a gap between theory and practice (22).

Portfolio is accepted as a student-centered assessment method. Jasper asserted that this method, by concentrating on previous experiences and achieving the outcomes of the program, using critical thinking, coordinates theory and practice, and needs to be used along with other teaching methods (23). Involving the students in self-assessment and combining assessment of theory and practice make students play the role of an assessor. This type of assessment is applied as a part of learning process to create learning experiences in students in mentorship and tutorial educational methods (24).

In George Washington University, 5 units have been allocated to cultural variations, but in Iran, despite cultural variations, this issue has not been taken into consideration. In the philosophy of BSN, such instances like cultural variation and social justice have been less taken into account (7).

In the George Washington University School of Nursing, accurate program evaluations, theoretical units and accurate clinical assessment are very important for students to acquire skills. There is a coordination committee to supervise students' achievement, and it is possible for weak students to get private counseling and teaching. In Iran, there is no definite trend for assessment

of clinical courses and apprenticeships, and assessment is mostly done personally. Moreover, clinical courses in most of the faculties are taught by master students, who may not have sufficient teaching skills. The results of the study by Imanipour & Jalili showed that clinical evaluation in Iran is dependent upon a general form and is performed haphazardly according to the personal opinion of the trainer, which is not adequate to assess the clinical performance of students in the opinion of both students and teachers. Applying basic changes in this method and using other clinical assessment methods can help make a more accurate judgment of students' clinical performance (25). It has been shown that most of the students learn based on the assessment method and learn what they are supposed to be assessed on; for example, assessment by colleagues enhances the tendency toward team work, professionalism and communication skills (26). Therefore, assessment method has to stimulate students' learning and provide feedback to students in order to promote learning. In a review analysis, Rassouli et al. analyzed the existing challenges in nursing education in Iran and reported that indefinite responsibilities of students in line with educational objectives and indefinite assessment method for students were the problems in clinical education of nursing students in Iran (27).

In George Washington University, there is a course on transition to professional practice (9 theoretical units and 3 practical units). All nurses are also required to take National Council Licensure Examination (NCLEX) test to make them better prepared for work environments. In Iran, no attention is paid to transition to professional practice, which is a crisis for most of the graduates (7). The results of Farnia indicated that the majority of students believed they had not acquired adequate skill for their future work (28). There is no exam like NCLEX to acquire better theoretical and practical preparation for work. Further, inconspicuous role of healthcare in education, insufficient technical qualification and undirected assessment are major challenges of an efficient education (29). This is indicative of inadequate productivity in clinical education and negative attitude toward clinical apprenticeship for gaining work experience for nursing students. In the George Washington University School of Nursing, legal and ethical considerations for clinical work (2 units) and professional regulations (12 units) have been considered in the curriculum. In Iran, despite increasing complaints and legal problems of nurses, the legal issues for clinical work are disregarded (8).

In the nursing principles and skills course in Iran, it seems the number of practical units is not adequate (7, 16). In a study, one of the major aspects of clinical education of principles and skills is the presence of program and its



implementation. To this end, it is necessary to provide an appropriate content of theoretical, practical and clinical education and regular training with a focus on maintaining standards. In observing the standards or desirable educational minimums, it is essential to pay attention to different conditions and grounds. One of the major problems in this regard is inconsistency in the written and operational program of apprenticeship. Thus, for an efficient educational process of principles and skills, it is necessary to have proper communications at interpersonal and in-group and out-group levels. As a result, everyone's share in education is defined, and all members cooperate to achieve the final objectives, i.e. humane care for the clients of healthcare centers (30).

In George Washington University, research in nursing (3 units), creating incentives for studying hard through research grants and top seminars for top students, promotion of research via supporting students financially, presence of learning opportunities and international and additional research have been taken into consideration. Also, the presence of men in nursing profession and taking required measures to keep them in this profession have been considered.

In Iran, there is limited financial support for student research (16). As for professional roles, research role has been less emphasized (15, 21). Although authorities are aware of the importance of men's presence in nursing profession, no measures have been taken to absorb and keep them (21). The content of nursing education in Iran, especially in technical and major courses of nursing, is an inadequate translation of nursing resources in the west, and changing nursing education is an inevitable and vital necessity (31). In planning to overcome the challenges ahead of efficient education, it is necessary to pay heed to the cultural, local, historical, social and political aspects of the community (32).

In the curriculum of the United States, the number of special units and related nursing cares are limited; BSN needs a lot of expenditure, and religious issues have not been taken into account (8, 20). In the philosophy of nursing education, it is necessary to pay attention to professional values as well as Islamic culture and teachings (11). In the education system of secular countries, including the United States, religious values are separated from professional values, and both the government and rules are neutral about religion and prefer no fraction or cult officially (33).

## Conclusion

The results showed that BSN in Iran requires reassessment. With regard to the philosophy, cultural

variation and social justice need to be taken into account. Given the existing challenges, it seems necessary to take into account the legal and ethical considerations for clinical work and design a course in this regard. To encourage top students and to promote the research quality of nursing school, it would be useful to attend seminars, to carry out research projects and to financially support top students. Hence, the efficacy of solutions is suggested to be analyzed through interventional studies. Also, educational problems should be studied more accurately; qualitative studies need to be conducted, and curriculum should be flexible and adaptable based on the regional conditions.

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