

A Comparison of the Psychiatric Nursing Master's Curriculum in Iran and Canada

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Abstract

Background: One of the most important tasks of a university is to assess weaknesses and build upon strengths. As the education and skill level of psychiatric nursing graduates in Iran is often unpredictable, we hope to improve the current curriculum by comparing it to a successful educational program.

Objectives: This study compared the MSc psychiatric nursing curriculum in Iran with Canada.

Methods: This is a descriptive comparative study conducted in 2018. The required information was collected from the Iran Health Ministry curriculum and Canadian universities offering psychiatric nursing graduate programs. The method used was a Beredy model that includes description, interpretation, neighborhood, and comparison

Results: The University in Canada has been established earlier than Iran. The educational program at Brandon University is focused on community needs. It is possible to complete program on a part- or full-time basis. Some courses are optional. Admission requirements include practical psychiatric nursing care experience and a relevant degree. In Iran the requirements are limited to a bachelor's degree in nursing and an entrance exam. The program primarily focuses on theory, and was only offered on a full-time basis.

Conclusion: The Iran educational program has weaknesses. In order to improve the quality of education, it is suggested students volunteer to have psychiatric nursing care experience. The curriculum should include administration, education, and practice. A more flexible curriculum based on the needs of Iranian society should be offered.

Keywords: Curriculum, Master, Mental Health Nursing, Comparative Study, Canada, Iran

Background

Worldwide, the goal is to preserve and improve health. Therefore, educating people in charge of patient services is one of the basic needs of the healthcare system (1). The task of each educational institution is to educate and aid in the development of students (2). Higher education plays a crucial role in the development of all aspects in a country and plays a vital role in the training of efficient and competent human resources (3). Universities are considered to be the most important educational institutions for training of a country's specialists; they are also tasked with the production of new knowledge and advancement of the advancement of both science and knowledge (2). The study of the weaknesses

and strengths, the identification of opportunities and threats, and efforts to improve the situation overall are the most important tasks of universities (2, 4). Medical science education-part of the higher education system- deals with human life, so the health of society depends on the quality of education provided at these institutions (4). Another branch of medical sciences is psychiatric nursing. In this field, if the quality of education is inadequate, it can cause irreparable damage to the health of society. Therefore, it is of utmost importance that the quality of nursing programs be evaluated continuously, and upgraded accordingly (4). The available university programs should be in accordance with the needs of the community (1). Nursing education has been

developing rapidly since the last decade in the world, which not only raises concerns about the quality of education; but has also faced challenges like the competence of graduates, as well as the quality of education and curriculum (3, 4). A "curriculum," in essence, at any university, is about what students should study (5). The curriculum is important in determining the values, goals, and materials of instruction. Specifically, it is a well-designed set of learning opportunities that is introduced by the organization that varies according to structure, performance and experience (1).

The number of graduate programs in psychiatric nursing has grown in the world; and has provided educators and specialist educators in health care settings (6, 7). Each of the universities in Iran has at least one full-time nursing program (8). In Iran, the graduate degree programs in psychiatric nursing began in 1975 (1, 9); however, these programs were deemed ineffective for students (1), thus it was revised in 2013 (9). As individual health needs are dynamic in nature and change over time, a review of the existing nursing curriculum is needed to respond to these dynamic changes (10). We did not find any study on the status of psychiatric nursing care after the curriculum was revised, or any studies comparing mental health nursing curriculum. Using the experience of countries where have rich experience and high-quality education system, and also with localization (4), weaknesses will reduce.

Objective

This study was conducted in order to compare the psychiatric master's degree curriculum in Iran with one that has been deemed successful.

Methods

This research was a comparative-descriptive study conducted at the Islamic Azad University in 2018. In general, a comparative study places 2 phenomena or more together, in order to analyze similarities and differences (11). In the current study, we used the Bereday's four-stage pattern, which was designed George Z. F. Bereday (1964) (12).

This template is an absolute and abstract method to conduct comparative studies. It identifies four stages, including description, interpretation, juxtaposition, and comparison (3). In the description stage, the gathered research is based on evidence and information... At the interpretation stage, the information collected in the first stage is analyzed. Then, the information is presented to create a framework for comparing similarities and differences in the classification and formulation stage (i.e., juxta stage). In the comparing stage, the similarities/differences, were compared (3, 13-15). So, top-level nursing universities were searched using Google, Google Scholar, and PubMed search engines on a global ranking. We utilized keywords in both Persian and English, which were as follows: Master of Science in psychiatric nursing, curriculum, Canada, Mental health nursing. Brandon University (BU) in Canada was selected based on the ranking of the master's program, having a long history of effective teaching and availability of the required information online. In order to access the

information needed, like the curriculums and syllabus of the psychiatric nursing field, we perused specific websites online.

Specifically, we explored the Iranian health ministry website, which supervises and designs education systems. We also examined the websites of Iranian universities that currently have an MSc in psychiatric nursing program. Comparatively, we obtained the relevant graduate curriculum at BU from the university website. Accordingly, the gathered information was arranged in a table format and compared.

Results

The results obtained on elements of the curriculum are noted in Tables 1-3. The curriculum elements include the history of the course, values and philosophy, mission, and vision, goals, expected potential, professional roles and tasks of students, specifications, and structure, of course, conditions of student admission, contents of the master's degree.

Discussion

In this study, the Iranian-Canadian psychiatric nursing education systems were compared in order to improve the overall quality of education.

Typically, a curriculum should be comprehensive, clear, measurable, accessible, directly linked to the vital elements of the organization and written in plain and understandable language.

The mission must answer the following questions:

1. What kind of work and activity is it?
2. Who are our customers?
3. What business will be?
4. What kind of activity should we do? (3,5)

The responsibilities of a nurse in the educational program should be designed in accordance with the profession, philosophy, mission and reality. The designed nursing curriculum should help qualified graduates to improve their abilities for clinical practice (3, 5). The current curriculum in Iran does not address the student's professional interests (5, 22); and focused on the host colleges.

Another point to consider in the psychiatric nursing curriculum of the University of Iran compared to BU is the lack of up-to-date capabilities and facilities and the provision of educational units in different ways... In BU, students can take various courses in an informal setting and use advanced educational technology, while in Iran there are only formal, faculty guided courses offered (9).

Appropriate educational organization goals reflect the mission of that organization (5). The overall objective of the master of psychiatric nursing program in Iran is to train educators and researchers with the necessary skills, supply the necessary human resources at the universities, and achieve professional self-sufficiency; however, the program does not train students in the prevention of mental illness or promotion of community health. Whereas, BU is committed to generating and increasing knowledge,

Table 1. Course History

University	Define course and history
Brandon	The location of the university was founded in 1899, as a Brandon School, a Baptist institution. Dr. John Robbins was appointed (1967) as the Chief of Staff at the University. In the ranking system of undergraduate universities in 2015, it was ranked 16th among the 19 universities (16). It is a member of the Association of Canadian Universities and Colleges, AUCC, ACU Association of Commonwealth Universities, Canadian University Association for CUSID Faculty Debates, and inter-university sports teams (8).
Iran	The first postgraduate degree in Nursing and special branches degree was established in 1999, at four National Higher Education Nursing Midwifery Higher Education Institutes (National University, Medical Center of Iran, Nursing Institute of Firoozgar and Psychiatry, Tehran). At the onset of the Islamic Revolution, the review of nursing master's degree program was approved by two educational programs under the heading of nursing education and management of nursing services. In 1981 Tarbiat Modarres University, non-governmental, and public universities Approved MSc. A revision of the program was completed in 2001 by Shiraz and Mashhad Medical Sciences Universities. In 2012, under the supervision of the Ministry, the program was ready (9). Before 2012 that was a branch of nursing, after that it became a field=(9).
+	Values, mission, and vision
Brandon	Vision: Discovery of truth with love and friendship. The university is an opportunity for students and staff to progress. In fostering a comprehensive student culture, it will engage a diverse range of students in research activities as active citizens. With the collaboration of the community, growth and innovation will be facilitated. Mission: We promote education, research, training, and student tuition fees. We train students so that they can be citizens and lead in leadership roles. We defend academic freedom and accountability. We create new knowledge and publish it. We welcome cultural diversity and, in particular, are committed to teaching. We share our skills and experience with a larger community. Values Higher education in the field of education and research, creativity Implementation and innovation, Mental integrity, Ethical performance, Responsiveness, Accessibility of essential resources for student success, Understanding and welcoming our diverse cultural, rich tradition of free education, Academic freedom and accountability, Participation and collaboration with the community- Growth and continuous improvement of the programs and services of the university (17,18).
Iran	Vision: After 10 years, this course will be based on the national and regional standards for people, family and community health and health indicators in the region. Mission: Nurses are trained to be knowledgeable, responsible and committed; so that they use their knowledge and skills to care for psychiatric patients and to protect the family and society on different levels. Values Mankind as a successor to God is dignity, sanctity, honor and dignity, and has comprehensive obligations for the promotion of humanity. Observing social justice and giving same rights to all patients with health care is essential for psychiatric patients. Family and children have a right to participate in their health care decisions. Nursing education programs at this stage are aimed at educating individuals in order to achieve creativity, initiative, competence, self-esteem, self-efficacy and knowledge. The graduates of this section have benefited from their potential for judgment, growth and prosperity in the nursing and human resource industry. These graduates are also responsible, efficient and effective at their occupation (9)
	Strategic Objectives
Brandon	-Upgrade knowledge -Programming of rational, social, cultural development, university members including students, staff, professors -To help improve the community -Creating a lasting love for all students (10,19) Strategic plan: Creating a physical and managerial structure, connecting the theory and practice with tutorials (encouraging researchers).Promoting a student-centered learning environment, A high-quality program (20, 21).
Iran	Teacher training for getting educational and research abilities, providing the required human resources for Universities of the Country, Achieving professional Self-sufficiency There is no strategic plan (9)
	Conditions of student admission
Brandon	Having a college degree at Brandon University. Having a Master's degree related to psychiatry with a course in research and statistics. If a student is not prepared enough, a pre-requisite course is required. Spend at least 60 hours a day at the University. Have a bachelor's degree in nursing from a Canadian university or a psychiatric nursing certificate. Have at least 1 year of full-time psychiatric nursing experience (17,18)
Iran	Acceptance of entry in accordance with the regulations of the Ministry of Health and Medical Education, which includes: nursing, medical-surgical, children, maternal and neonatal health, community health nursing, psychiatric nursing and general language (all subjects coefficient was 2 except for psychiatric nursing (=4)), having a nursing bachelor's degree from Iran or abroad with approval of the Ministry of Health and Medical Education (9) The Iranian Nursing Board supervises a master's degree. It is also responsible for university accreditation and the determination of the university's curriculum, and all universities have to comply with the curriculum established by the Ministry of Health. Although flexibility in curriculum is allowed (20)

learning, developing, and upgrading the cultural and social beliefs of college students and university to staff. All of these point to providing service to the community, which are the strengths of BU.

The goals and mission at BU are more consistent. The mission of BU is to educate researchers and global managers to produce and disseminate knowledge. While in Iran, the

goal is to educate already knowledgeable and committed nurses, so that they may use their knowledge and skills to maintain and enhance the health of families and society, but is not mentioned the global impact of research and enhancement of community health and attention and respect for cultural diversity. However, it is based on the needs of the society; it does not completely cover all aspects

of the vision

At BU, the vision is to focus on the promotion of science with peace and friendship, and Iran has aimed to equalize and align scientific levels with credible universities. In order to improve the quality, health care organizations, like the WHO- ask for the standards to be upgraded for newly-educated nurses. This is primarily because life today requires educational developments and innovations, especially at universities (2).

The values instilled in Iranian programs are based on the Islamic values of the community. Specifically, they emphasize the development of virtue and human integrity, maintenance of human dignity, the establishment of social justice, as well as attempt to establish a system of meritocracy. Despite the fact that Iran has greater ethnic and cultural diversity, BU places greater significance on ethnic and cultural differences.

Certainly, the curriculum of any discipline is indicative of

the relevance of that discipline to the societal needs (21-23). Yamani et al. (2011) have illustrated that health care changes, politics and current sciences are the central features of each curriculum in health care sciences (23). It can be argued that if the quality of higher education is not sufficient, especially in postgraduate courses, then graduates with different academic backgrounds will not be able to carry out their specialized tasks. In this case, the scientific future will not be reliable. The drop in the quality of education in postgraduate programs leads to a shortage of expert human resources, challenges the economic and social development plans of a country, and causes serious problems (24). The professional tasks required for graduation, in both programs, include: the role of care-education, teacher training or mentoring, health education, and management. In Iran, the task of counseling, diagnosis, and prevention for students is considered; whereas, this is not part of the curriculum at BU. Educational courses in the curriculum should be

Table 2. Expected Potential, Professional Roles and Tasks of Students

Brandon	Academic readiness to facilitate the application of knowledge and advanced skills in clinical practice, performance or training, focusing on one of the selected units. Combining this knowledge with research methodology, analyzes the current performance and contributes to innovation in service delivery and policy development. Providing teachers, mentors and role models in order to clinically enhance students and practitioner (8)
Iran	In the role of supportive care: communication, psychological and family counseling assessment skills, interpretation of laboratory results such as electrolytes and hormones, diagnosis, planning for coping skills, i, playing a special role in psychotherapy. As a psychiatric care specialist, counseling skills in the field of psychiatric nursing, educating skills for clients and families, the skill of managing related units. Caring for clients during electroconvulsive therapy, management of anger, relaxing the patient with suicidal thoughts, CPR, monitoring the patient in terms of side effects of medication, helping to cure nutritional disorders. Regarding research: research and publish scientific articles, interdisciplinary coordination (9)
Specifications and structure of nursing masters courses	
Brandon	Can take courses on a part-time (3-4 years) or full-time basis (2-3 years). Courses are broadly presented online with 3 to 2 days of required attendance per year. All students are required to attend the university 2-3days a year to interact with professors and classmates and receive information and resources (19).
Iran	Graduate students must study full-time. The program is 2-3 years. Each academic year is comprised of 2 semesters (17 weeks) and a summer term of 6 weeks in compliance with the provisions of Article 4 of this Code. (8)

Table 3. Contents of the Master's Degree

Brandon	A course consists of 18 units: Advanced Psychoanalysis (3 units) - Advanced Philosophy (3 units) - Qualitative Health Research (3 units) - Quantitative Health Research (3 units) - Minimum Psychiatric Nursing (3 units) - Advanced Studies In Psychiatric Nursing (3 units). 6 units are in practice, education and administration fields that are selected on the basis of the title of master's thesis for the needs or student abilities, and are recommended by the supervisor: advanced practice in psychiatric nursing 1, 2 (6 units), administration (Health & Safety Leadership) 1, 2 (6 units); Education (Advanced Nursing Education 1, 2 (6 units) and thesis 9 Units (10,19).
Iran	Consists of 13 theoretical units: ethics-rights and rights in psychiatric nursing (1 unit), Theories Psychiatric nursing patterns and their application (1/5 units), Nursing management (1 unit), Educational methods (1 unit), psychopharmacology (1 unit), Health principles and psychiatric nursing (1 unit), Principles of counseling (semi-unit), Adult psychiatric disorders and psychiatric care (1 unit), Individual psychiatric interventions (1 unit), Group and family psychopathology interventions (1 unit), Psychiatric interventions of children and adolescents (1 unit), Psychiatric disorders of the elderly and psychiatric care (1 unit), Addiction Nursing (half-unit), Emergency (half-unit). Practical (1 unit): Law of Ethics and Rights in Psychiatric Nursing (Half-Unit), Educational Methods (Half-Unit). Apprenticeship (8 units): Theories Psychiatric Nursing Patterns and Their Application (0.5 units), Nursing Management Psychiatric Nursing (0.5units), Psychopharmacology (0.5), Health Principles and Psychiatric Nursing (0.5 units), Nursing Counseling Principles (0.5 units) (Adult psychiatric disorders (1 unit), Individual psychiatric interventions (1 unit), Group and family psychiatric interventions (1 unit), Psychiatric interventional interventions of children and adolescents (1 unit), Psychiatric disorders of elderly and nursing care (0.5-unit), Nursing addiction, Psychiatric Emergencies (half-unit). Internship 6 units Undergoing Lessons: Medical Informatics System (1 unit), Advanced research and statistics Thesis 4 units (9)

consistent with the expected capabilities of the students. In Iran, the required clinical skills include diagnosis, nursing care, counseling, management, and treatment. All of which are not referred to in the university goals. There are also some interdisciplinary coordination capabilities that are not included in the curriculum, but are required. The nursing education philosophy, which is part of community health care, must always be in line with the community needs. One way to achieve this is to make changes to the nursing curriculum (23). Health care needs, change over time (10), so nursing education development should always be aimed at balancing the needs of the health system, with the educational and financial policies of the community (20). The professional duties of students in Iran are in accordance with the needs of the society, but no job position has been defined for psychiatric nursing. Incompatibility of training with community needs, the learners, and nursing knowledge can damage nursing education., MSc course in psychiatric nursing aims to train professional nurse who as a specialist can assess and recognize health status , provideservices to individuals, families and the community, be competent to conduct research, manage and teach. Therefore, it is important to pay more attention to course quality (20).

The nursing master's program focuses mainly on educational units more than practical courses). In spite of various specialized courses, graduates do not have a suitable position in clinics. Although we expect their training to enable them to operate the theoretical knowledge gained, the gap between what is taught in the classroom and the service is the main problem in the field of nursing (20).

At BU it is possible to gain entrance into a master course either by providing a bachelor's degree, a certificate in psychiatric nursing or by having clinical work experience. However, in Iran, students are only eligible for a graduate program after completing a bachelor's degree in nursing and passing an entrance exam; even psychiatric nursing programs in undergraduate degree have been reduced. Also, unlike BU, the level of English comprehension is not deemed important. Definitely students who are familiar with the English language can study many articles and texts in English (25).

A limited number of major units at BU are similar to Iranian educational content, including ethics, management, and psychopharmacotherapy. Although there are no equivalent courses offered online at BU. The units of quantitative and qualitative research methods are presented separately in 3 units.

In Iran, Master's programs in nursing are responsible for preparing qualified nurses who can act as nursing teachers, clinical researchers, and managers in health care centers (9). In total, there were 43 compulsory and elective units with a focus on teaching (8). However, at BU, there are only 18 theoretical units and 6 units are divided between practice, administration, and education. These are taught separately, and the student chooses the unit based on the thesis and the assessment requirements.

In all of the traineeships at BU, emphasize the use of a conceptual framework in the practice and application of

nursing theories, which are considered as strengths. In Iran, the emphasis is on using an evidence-based approach (2).

Finally, in Iran, the 4 units dedicated to a student's thesis solely focus on quantitative methodology; whereas, at BU the 9 units for a thesis can be either quantitative or qualitative. Furthermore, at BU there are a total of 33 theoretical and practical units, and specifically advanced clinical internships includes in ethical issues and theory in accordance with psychiatric nursing context (5). Comparatively, in Iran, the curriculum has neither community-based nursing care, nor prepares students for legal and criminal matters (10). Psychiatric nursing education should provide the ideal conditions for postgraduate students to acquire scientific, human, technical skills, and knowledge in accordance with the community that they will serve in the future (20).

Universities are required to train educators who have the capacity to prevent, treat and promote community health. In order to maximize effectiveness, while in theoretical classes, students must glean the information that they need to be successful in this field; from there, through practice in a clinical settings, students can achieve the required capability (22). Today, nurses are expected to provide holistic care, including meeting the biological, psychological and spiritual needs of patients (26). However, nursing programs in Iran are considered a biomedical field primarily focusing on medical problems. Programs are focused on the transfer of knowledge, skills, and techniques related to the physical care of patients (26). However, BU places emphasizes on the role of clinical, managerial, and educational; research and participation in the development of nursing knowledge, emphasizing interdisciplinary co-operation, the provision of services responsive to cultural values and differences; as well as instruction on how to meet the needs of a community (5, 18). In European countries, nursing is an independent care-based healthcare practice based on theoretical knowledge and research. Specifically, it is based on the ability of the nursing profession to provide a high quality and supportive leadership role (5, 22). While in Iran, nursing education was considered as one of the barriers to the establishment and growth of the nursing profession's respect and dignity (10). Due to the uncertainty of roles in mental health and the lack of standardized services, mental health nursing is growing too slowly (1). The health care system in Canada is not self-governing, and the relationships between the health care systems and university is uncertain (5). Despite the revision of the curriculum in 2013, researchers did not find any study on the quality of the revised curriculum or the status of psychiatric nursing care that were recommended.

Conclusion

The results showed that the curriculum of psychiatric nursing in Iran differs from BU in the following areas: Admission requirements, adapting to the needs of the community, and more emphasis is placed on practice. Based on our findings, we suggest that in Iran, volunteers have mental health nursing care experience and the curriculum should include administration, education, and practice. The BU curriculum is based on community needs

more than in Iran and consequently, it is more effective. Due to the changing health needs of the community and the importance of having well-qualified nurses, we need to develop an education system based on the needs of the community. This will not be achieved without quantitative and qualitative assessments conducted at different levels of nursing education.

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Reference

- Mohtashami J, Salsali M, Pazargadi M, Manoochehri H, Alavi Majd H. Competency-based curriculum education in mental health nursing. *Open Journal of Nursing*. 2013; 3(8): 545-51. doi:10.4236/ojn.2013.38074
- Sajjadi A, Mokhtari Nouri J, Nazamzadeh M. A comparative study of nursing undergraduate education system in Iran and Japan. *Clinical Excellence*. 2016; 4(2): 81-99. [In Persian]
- Hasani Narenjbaghi S, Valizadeh L, Bagheri F. Comparative Study of Curriculum of Nursing Students in Neonatal Care Nursing Students in Iran and Pennsylvania University of Medicine. *The J Urmia Nurs Midwifery Fac*. 2017; 15(7): 514-23. [In Persian]
- Jalali R, Rigi F, Parizad N, Amirian Z, Comparison of undergraduate nursing education in Iran and George Washington University. *Educ Res Med Sci*. 2016; 5(2): 64-73.
- Kermanshahi S, Memarian R, Hoseni A, Zamzam S, Nezamli F. A comparison postgraduate MS curriculum of nursing education in Iran and Canada. *J Med Edu Dev*. 2011; 4(6): 48-54. [In Persian]
- Delaney KR, Hamera E, Drew BL. National Survey of Psychiatric Mental Health Advanced Practice Nursing: The Adequacy of Educational Preparation: Voices of Our Graduates. *J Am Psychiatr Nurses Assoc*. 2009; 15(6): 383-92. doi:10.1177/1078390309353070. PMID:21659252
- Nesnera A, Allen DE. Expanding the Role of Psychiatric Mental Health Nurse Practitioners in a State Psychiatric System: The New Hampshire Experience. *Psychiatr Serv*. 2016; 67(5): 482-4. doi:10.1176/appi.ps.201500486 PMID:26766758
- Tabari khomeiran R, Deans C, Nursing education in Iran: past, present, and future. *Nurse Educ today*. 2007; 27 (7): 708-14. doi:10.1016/j.nedt.2006.10.003 PMID:17125890
- Ministry of Health and Medical Education. The curriculum of Master of Science in nursing Iran: Ministry of Health and Medical Education. Available from: http://mbs.behdasht.gov.ir/uploads/KAN_RavanParastari91.pdf
- Farsi Z, Dehghan-nayeri N, Negarandeh R, Broomand S. Nursing profession in Iran: An overview of opportunities and challenges. *Jpn J Nurs sci*. 2010; 7(1): 9-18. doi:10.1111/j.1742-7924.2010.00137.x PMID:20618672
- Nabatchian F, Einollahi N, Abbasi S, Gharib M, Zarebavani M. comparative study of laboratory sciences bachelor degree program in Iran and several countries. *J Payavard Salamat*. 2015; 9(1): 1-16. [In Persian]
- Wojniak J. George Z.F.Bereday (Zygmunt Fijalkowski) and his comparative method in educational research. *SHS Web Conf*. 2018; 48: 1-13. doi:10.1051/shsconf/20184801050
- Borzou S R, Oshvandi K, Cheraghi F, Moayed M S. Comparative study of nursing PhD education system and curriculum in Iran and John Hopkins school of nursing. *Educ strategy med sci*. 2016; 9(3): 194-205. [In Persian]
- Aghaei M, Roshanzadeh M, Tajabadi A. Comparison of the educational system and curriculum of master of pediatric nursing in Iran and Toronto, Canada: A comparative study. *Research in Medical Education*. 2019; 10(4): 61-9. [In Persian] doi:10.29252/rme.10.4.61
- Aghazadeh A. The comparative education. 1st ed. Tehran: Payamenoor university publication; 2006. [In Persian]
- Brandon University: Ranking, courses, Admissions, Tuition fee, Cost of Attendance scholarships. *Collegedunia*. Available from: <https://www.brandonu.ca/mpn/>
- Tipliski V M. Parting at the Crossroads: The Emergence of Education for Psychiatric Nursing in Three Canadian Provinces, 1909-1955. *Can Bull Med Hist*. 2004; 21(2): 253-79. doi:10.3138/cbmh.21.2.253 PMID:15568262
- Weber M, Delaney K, Snow D. Integrating the 2013 psychiatric mental health NP competencies into educational programs: where are we now? *Arch psychiatr nurs*. 2016; 30(3): 425-31. doi:10.1016/j.apnu.2015.12.004 PMID:27256952
- Brandon university: Centre for teaching, learning, & technology. Teaching and learning plan. 2016-2021(CTLT Steering Committee). 2016. Available from: <https://www.brandonu.ca/ctlr/files/CTLT-TL-plan-August-2016-1.pdf>
- Sharifi Far S, Roshandel M, Zareian A. Revise of the curriculum of the master science of Military Nursing. *Journal Educational Studies (NAMA) Aja university of medical science*. 2012; 1(1): 56-8. [In Persian]
- Sahebihagh M H, Khaje Goudari M, Moghbeli G, Soheili A, Khadivi A, Valizadeh L, The Challenges Of Nursing Doctoral Curriculum In Iran: A Critical Look Based On Delphi Technique. *J Urmia Nurs Midwifery Fac*. 2017; 15(6): 424-39. [In Persian]
- Mehrabi M, Memarian N, Mohaghegh N, Abbasi M. The Spirituality Integration in Iranian Health Education: Best Lessons for Development. *Bioeth Health Law J*. 2017; 1(2): 55-61.
- Yamani N, Firouzabadi N, Core curriculum in medical education: Introducing Some Approaches. *IJME*. 2012; 11(9): 1263-73. [In Persian]
- Shobeiri S M, Shamsi Papkiadeh S Z, Internal quality assessment program Master of Education degree from the perspective of teachers, students and educational experts Payam Noor University. *Journal of Research in school and Virtual Learning*. 2015; 3(9): 83-94. [In Persian]
- Arian M, Nobahar M, Babamohamadi H. comparative study of nursing master`s education program in Iran and John Hopkins school of nursing, America. *Journal of Nursing Education*. 2018; 7(3): 33-47. [In Persian]
- Seylani Kh, Negarandeh R, Mohammadi E. Iranian undergraduate nursing student perceptions of informal learning: A qualitative research. *Iran J Nurs Midwifery Res*. 2012; 17(7): 493-500.