

PhD programs in nursing in Iran and Canada: A qualitative study

Hossien Karimi Mooneghi,¹ Najmeh Valizadehzare,² Fatemeh Khorashadizadeh³

Abstract

Objective: To compare doctoral programmes of nursing in Iran and Canada.

Methods: This qualitative study was conducted in Mashhad, Iran, in April 2014. It was based on Beredy's model, including description, interpretation, juxtaposition and comparison. The validity of the related documents was assessed by internal validity, importance and accuracy of documents. Critique on the external validity and core of documents were reviewed. Then, they were interpreted, juxtaposed and compared.

Results: Both the countries had significant differences in fundamental elements of their curricula, including mission, vision, aim, objectives, roles and tasks of graduates. Consequently, academic units, final comprehensive exam, and research courses were also different.

Conclusion: Doctoral programmes in Canada focussed on competency-based, community-based, task-based and student-centred approaches. These approaches were ignored in the Iranian curriculum.

Keywords: PhD programme, Nursing, Curriculum, Canada, Iran. (JPMA 67: 863; 2017)

Introduction

One way to achieve development is to focus on the curriculum of technical and professional programmes. The aim of Doctor of Philosophy (PhD) programmes is to train individuals who are masters in a specific field in advanced research methodology so that they could achieve the latest bases of education and research in their specific fields and develop knowledge of their discipline.¹

Nursing is a specific and professional discipline.² The main goal of PhD programmes in nursing is to develop a student's skills in order to conduct researches by which new knowledge could be produced in the discipline.³

According to the American Nursing School Association, the aim of PhD programmes is to train critics, researchers and scholars to evaluate programmes and consequently produce knowledge.⁴ Generally, there are two models for PhD programmes, i.e. European and North American. In the former, students present their research individually under supervision of their advisor. However, in the American model, students start their research course after passing their educational course and taking their comprehensive final exam. The Iranian programme is similar to the American model.³ According to documents and history, the establishment of PhD programmes in nursing goes back to the opening of the Iranian Medical

Centre and was put forward in the 103rd meeting of extending higher education on June 5, 1954. The chief of nursing in the Higher Council tried to provide PhD curriculum. Finally, 19 years later, the curriculum was approved in the 284th meeting of the Higher Council for Planning by the Ministry of Culture and Higher Education. The first PhD programme was launched in Tabriz University of Medical Sciences with the admission of three students. At present, the number of universities that have carried out PhD programmes is 11 in different cities, including Ahvaz, Tehran, Tabriz, Tarbiat Modarres, Shiraz, Shahid Beheshti, Isfahan, Mashhad, Kerman, Behzisti, Tavanbakhshi and Baghiyatallah.¹⁻⁴

Canada is one of the first countries where universities offered PhD in nursing. The first doctoral programme was started in Alberta in December 1990 after 31 years of approved Master of Science (MSc) programme. Four students were accepted in January 1991 in the University of Alberta. The second university was the University of Columbia, and afterwards Toronto, McMaster and McGill universities started offering PhD programmes. The aim of PhD programmes in Canada is to train researchers and students in order to develop nursing knowledge.^{3,4}

Generally, shifting programmes from traditional to modern approaches is one of the aims and activities in a medical education programme.⁴ Farahani stated that it is necessary to evaluate PhD nursing curricula to improve quality and dynamicity of higher education programmes, and remove shortcomings. PhD in nursing in Iran is very young and needs to develop. As Canada is one of the three pioneers in PhD of nursing,⁴ the current study was planned to compare PhD

.....
¹Mashhad University of Medical Sciences, Mashhad, ²Department of Nursing, Mashhad University of Medical Sciences, Mashhad, ³Department of Nursing, North Khorasan University of Medical Science, Bojnurd, Iran.

Correspondence: Fatemeh Khorashadizadeh.

Email: f.khorashadizadeh@nkums.ac.ir

programmes in Iran with those of Canada.

Materials and Methods

This qualitative study was conducted in Mashhad, Iran, in April 2014. Permission was obtained from the regional ethics committee of Mashhad University of Medical Sciences. Beredy's model was used including description, interpretation, juxtaposition and comparison. Based on this model, necessary information of PhD programmes in nursing in Iran and Canada was collected from websites as well as related papers. The information was then carefully analysed. In the description phase, the research phenomenon based on evidences and information, notes taking, related documents and provision of sufficient evaluation and narration was done. After enough findings were available, they were ready for assessment and criticism. In the interpretation phase, descriptive information, obtained from the previous step, were analysed and investigated first. In the juxtaposition phase, the data of the two previous steps was categorised to form a framework for comparing similarities and differences. In the comparison phase, the research questions were answered in detail based on comparisons of similarities and differences. Finally, similarities and differences were compared.⁵

The stages of educational planning were the tool of informative collection. Websites of Canadian universities of Alberta, McMaster, McGill, Ontario and Victoria, as the pioneers for PhD in nursing, were assessed based on educational planning aspects. They were then compared with the present PhD programme in nursing taken from the Iranian Ministry of Health and Higher Education based on programme evaluation criteria, including qualifications, admission criteria, mission, aims and roles of graduates. Different sections, including mission, vision, aims, roles and tasks of students, academic units, educational strategies and methods, evaluation methods for students and programme and academic units were compared.

Results

The curriculum of the educational components from both Iran and Canada was analysed. The elements of curriculum concluded from admission criteria, vision and mission, goal, rule of students and courses were assessed.

In Iran, the acceptance criteria of qualification were a master's degree, competency in English language and passing the entrance exam. But at the University of Canada, in addition to the acceptance criteria referred to in Iran, a candidate must achieve grade A in research courses and should have a registered nurse (RN) degree.

Iran's mission and vision focused on collaborating to produce knowledge and advancing research. In Canada, they focused on advancing nursing knowledge and to generate new knowledge.

The goal of doctoral programmes in Iran focused on the international standards, permanent enrichment in faculty members, advanced skills and science in healthcare provider and national standards, international communication, training faculty members and promoting the nursing profession. The goal of doctoral programmes in Canada focussed on advancing health and nursing outcome within a global context, communicating nursing knowledge to others, understanding and advancing the role of nursing in society, integrating theory and practice, become a leader in the nursing profession, focussed on research, and engage for excellence development, organisation, evaluation of new knowledge, innovation, integration, individual-centred, problem-based learning and social justice activity.

The role of students of doctoral programme in Iran focussed on the planning and management educational programme, research in education, management and services in nursing and analysing professional issues and proposing solutions. In Canada, research focussed on generating new disciplinary knowledge that can guide professional practice, education focussed on exploring processes to know its relation to nursing disciplinary knowledge, practice focussed on generating, expanding and critiquing nursing disciplinary knowledge, and administration focussed on developing and critiquing nursing and health policy in relation to nursing disciplinary and professional practice.

The courses of doctoral programme in Iran focussed on philosophy and theory in nursing, educational programme and organisation, research methodology in nursing, research critique, statistics and new trends in teaching methods. In Canada, the courses focussed on philosophy in nursing research, theoretical base in nursing disciplinary practice, nursing challenge, information technology, management and statistic.

In the admission process, different qualifications such as research and language competencies were focused upon. In the vision section, improving and producing knowledge for development and organisation of new knowledge was emphasised.

Major differences in the aims of PhD programmes in the two countries revealed a central role of research, teaching practice and management. In the section of graduate's qualifications, five qualities were concentrated:

knowledge progress, scholarship, knowledge extending based on philosophy and research methodology, and change in management. The most important key point in academic units of Canadian universities was presenting elective units for students.

Discussion

The aim of the present qualitative study was to compare nursing PhD programmes in Iranian and Canadian universities. It showed that there is a remarkable difference between these programmes in principle elements of curriculum, including mission, vision, aims, admission process, role and tasks of graduates. Consequently, the academic units are different in three departments, i.e. educational courses, final exam and research course.

Characteristics and qualifications of PhD candidates are the main elements of educational programme input which guarantee implementing programme and policymaker's efforts. PhD candidates should acquire some skills in their Master of Science in Nursing (MSN) courses as a prerequisite for PhD courses, such as research methodology and medical statistics because they are necessary for producing knowledge, the main mission of a PhD programme.¹ The importance of research is found in Canadian programmes where they consider candidates by their score in related fields and confirmation of research competency. PhD candidates should necessarily pass a course on research methodology. However, just passing a course is not important, but passing with A score is regarded. Students should pass research methodology and statistics based on recommendations of their advisor in order to become competent in this field. There are some elective units that cause competency in these fields.^{3,4}

In Iran, it is thought that the PhD candidate has passed research methodology in his MSc courses. However, it is not considered as a prerequisite. The important point is that Iranian programmes focus on only passing, not getting grade A, to confirm competency. Unfortunately, an academic unit is disregarded for compensating this shortcoming. Advisor has no such authority. No attention is paid to students' score as well as documents are available for lack of attention to quantity and quality of research courses in the MSc programme of intensive care nursing. This group is future candidates of PhD. However, they pass just 3 units in research methodology and medical statistics, while MSc students of nursing education passed units in this field.¹⁻⁴

As for admission criteria, MSc students enrolled in

Canadian programmes can transfer to PhD programme prior to the completion of a thesis-based master's degree. It seems this could play an important role in shortening educational period for completing their PhD programme. This approach could modify the age level of PhD graduates of nursing. It should be noted that increase in the age of PhD graduates is one of the challenges of nursing which is considered as a concern in Canada and Iran. Some reports have showed that nursing is the only discipline with older faculty members. It is in agreement with a study conducted in American universities which found that the mean age of PhD faculty members with more than 50 years from 1991-2001 have increased by 70%.³ A Colombian study showed that the mean age of PhD graduates in nursing was 46.2 years. Those who were aged between 45-54 years constituted 48.5% of all participants. Those who were aged above 55 years were 12%. It seems students should be accepted from lower age to increase service productivity.⁶ Tazakori et al. showed that increased age is one of the problems of PhD in Iran. It is necessary to pay attention on selecting students. It has been witnessed that the graduates of PhD in Iran with 23 years of services are still studying, and retired after presenting their dissertation. Therefore, the nursing board members should consider it as one of the admission criteria in order to efficiently use of potentials and capabilities of young people in improving the discipline.⁷

Mission, as one of the major elements of the programme, states the cause of organisation's nature and is considered as a basis for educational aims and educational programmes. Mission should refer to elements such as educational aims, research and provide services, population who receive services and expected outcome for graduates.⁵ In Canadian programmes, two key points were considered: extension of knowledge and health outcome promotion. Therefore, in this programme, the mission is very general and comprehensive including key elements (type of work and activity population and outcome). All missions of Canadian universities consider the most crucial point of nursing profession, such as producing new knowledge. Because each discipline needs to produce and extend knowledge, a profession could be defined in community based on exclusive structure of knowledge as a basis for professional classification.⁸ Therefore, PhD candidates are responsible for producing knowledge as leaders and key observers in their discipline. They also lead students to improve health outcome and international nursing as well as producing knowledge. Therefore, a macro-mission is defined for training nursing specialists; defining and planning other elements depend on this mission.

There are some obvious differences between Iranian and Canadian programmes. First, Iranian programmes focus on producing and improving science instead of improving and extending knowledge. Millis introduced several ways for extending nursing knowledge. One of them is science which could be acquired through research. Iranian programmes just referred to this element as acquiring knowledge.² Therefore, science is one of the ways for acquiring knowledge. It is a narrow and incomprehensive insight to the programme. Another is too much focus on training faculty members in Iranian programmes. So, it is expected the mission of PhD programmes is not as comprehensive like the Canadian programmes. However, there is no denying that each country determines its missions and aims of its programmes based on its needs. The third difference is related to lack of attention to nursing disciplinary knowledge and health outcomes promotion. This is in agreement with Farahani's findings. In her descriptive study, she studied ideas of PhD candidates of nursing and stated that no attention is paid to clinical problems in Iranian programmes.⁴ One of the main aims of PhD programmes is development of graduate competencies for resolving nursing problems. It is necessary to consider nursing health care promotion and health outcome.

Vision is defined as the direction of an organisation. The goal and quality of goal achievement is depicted as a future destination of organisations.⁵ In Canada, the direction of mission and vision is depicted ideally. What they would like to achieve and hope to do is training PhD specialists for improving and producing knowledge. They have referred to the three key elements in extending knowledge and considered three qualities, which are accuracy, flexibility and relativity for programmes that could be helpful for goal achievement.⁶ It seems that mission of Iranian programmes is not in direction of the vision, because no definition is seen in vision for training competency of staff, producing science and extending research.

The other issue is aims of the programmes: how the elements could be achieved? In Canadian programmes, aims lead extending nursing knowledge to services. However, in Iranian programmes, training faculty member is led by vision while self-sufficiency is regarded as well. It seems that it would better be planned in the mission element. One of the crucial sections is graduates' role for achieving goals. Canadian programmes have defined four central roles, including research, education, practice and management. In Iranian programmes, research in education (planning and course management) is mentioned. Mission from this programme is allocated to

the leadership role and practice collaboration of graduates in community and practice improvement.

The other important characteristic of Canadian programmes is competency of graduates. Bihamde fined it as a collection of knowledge, skill and ability in a certain profession which helps individuals to do their tasks successfully.⁹ The goal of higher education is providing opportunities for acquiring skills and ability which is defined as competencies. It helps students to show their efficacy and productivity in community. Competencies should be reflected in academic programmes.¹ Canadian programmes refer to six important competencies, including: progressing nursing, developing scholarship, extending knowledge, extending philosophy-based research, research methodology and leadership. They stated that PhD graduates should be creative critical thinkers and reflective. They should be a thinker because it is necessary for analysing professional problems and presenting proper strategies. A PhD graduate should know which competencies could be acquired upon graduation in order to be accountable to community. In fact, competency-based approach has been considered for training PhD candidates.¹⁰ The role of PhD candidates in community is one of the strengths of the programme which has been emphasised in mission as an important point. This programme believes that a candidate, who is trained in acceleration era, should be able to move with the community needs. So, students' activities should be extended out of university and lead to community atmosphere.

Mohammadi quoted from Lovely and Ripcord that the main responsibility of higher education system is training people who could adapt themselves with community changes. So, they should be trained in community context. If this competency is ignored in curriculum, it could not be accountable for community.¹¹ Iranian programmes have ignored these competencies.

The other important criterion for admission is to provide proof of RN registration. It is regarded as the basic qualification for admission. It seems that Canadian programmes noticed these criteria in the direction of producing knowledge and extending special knowledge for nursing as well as promoting health outcomes and integrating theory and practice in order to achieve the mission and vision of their programmes. It could be regarded as an opportunity and a risk. It could be a risk because the discipline would be isolated. It should be noted that one of the extending strategies for nursing which have been applied for centuries during nursing history is using borrowed theories² and then

appropriating them with the discipline. Admission from other disciplines to nursing could help extending nursing theories as well as paying more attention to nursing from other professions. There is no criterion on this in Iranian programmes. Students from other disciplines can enter to nursing programmes.

The other elements are academic units and the formats. It is interesting that academic units which are presented in Canadian universities are very flexible: different universities with many different academic units. In contrast, Iranian PhD programmes, which are run in 11 cities, offer no flexibility. Canadian programmes conducted flexible academic programme units even in one university, except for obligatory or core curriculum. Students could select elective units based on recommendations of advisors, their interests, careers and experiences. Flexibility has two advantages: first, students can develop their competencies based on their future career. It is mentioned clearly in PhD programmes. It can lead to better quality of dissertations and making them practical. Second, programme flexibility should be planned based on community needs of each state/province. This can help achieve active collaboration of students with the community. Iranian programmes have ignored flexibility and elective units. So, students should pass obligatory units despite mastery in some contents. It is possible to choose units in the direction of individual interests or professional development. Students' interests are so important in curriculum planning; they should select academic units based on their needs, interests and professional career. PhD programmes should train interested and independent students. Curriculum is responsible for training creative people. It is one of the important missions of educational systems.¹²

Farahani said students should have the right to select elective units. This can save students time and develops their ability to enrich dissertation-related studies.⁴ In terms of academic unit, Canadian programmes have focused extremely on the importance of philosophy of nursing science, nursing knowledge, constructing knowledge, developing theory in nursing and quantitative and qualitative methodology. Educational planning is in direction of mission, producing and constructing knowledge and lead students towards mission. Iranian programmes conduct 3 units altogether for philosophy and theories of nursing. Regarding the importance of producing knowledge of nursing, it is necessary to teach them separately in order to achieve professional development. A study found that 85% of PhD candidates confessed that this 3-unit lesson could not

help them in conceptualisation, model development and making theories for nursing phenomena. It should be noted that increasing the unit to 3 was conducted after revision of PhD programmes in 1984 by revision board of PhD programmes.¹³ However, this unit needs to be extended as separated items, including philosophy of nursing science, nursing knowledge and constructing nursing knowledge. Philosophy of nursing is crucial for PhD candidates, so it should be considered as basic core units.¹⁴ Seminar for dissertation has been considered as important and necessary units for students in Canadian programmes. This lesson provides opportunity for students to share their research ideas.¹⁵ Consequently, it prevents students to be confused at the end of their educational course for selecting a topic or title for dissertation. It helps students lead their research activities to dissertation proposal at the end of their educational course. This should be noted in Iranian programmes as well. During this, the process of presenting proposal would be accelerated and make students ready to prepare themselves for their dissertation.

In Canadian programmes, candidates can choose one of the faculty members as supervisor when they enrol. Consequently, students could be empowered in direction of their competencies or their future career through this supervision. It seems this could be possible in Canadian universities because of large member of faculty members. For example, the University of Alberta, as the first and largest university for running PhD programmes, had 54 faculty members in different academic ranks of professors, associate professors and assistant professors. In Iran, there is a shortage of faculty members and students could not be supervised continually by them. Some strategies could be suggested for this problem. For example, faculty members could delegate their activities to students as academic assignments for improving professional independency, such as critique of MSc thesis. As PhD candidates are expected to be a teacher for MSc programmes, some units which are taught by supervisors/advisors could be delegated to students. Students could participate in some classes with their supervisors such as research methodology, nursing theories, modern teaching methods in MSc programmes.

Canadian programmes conduct a unit as advanced nursing services. It is defined in the special field where student is working. This prevents one-dimensional training by discussing knowledge production.¹⁵ Iranian programmes train students out of clinical setting with one-dimensional approach. The outcome is to extend gap between theory and practice and lack of the quality improvement in clinical services. It seems that the Iranian

PhD programmes are discussing just the research and education that may increase the gap between theory and practice. Millis believed that focus on research without working in clinical setting may increase this gap.² It should be noted that this problem is also common in other countries. Catifin (1993) stated that most PhD programmes concentrate on philosophy and science of nursing as well as research. Therefore, the outcome is researchers as educational outputs who are able to generate modern knowledge of nursing and not to improve practice outcome.¹⁶

Finally, Canadian universities consider spirituality and religion in providing nursing care services. However, Iranian programmes ignore it despite strong religious basis and beliefs in community context.

Fortunately, the Iranian Revision Board of Nursing has started revising PhD programmes since 1990. Due to comprehensive search of authors in different Canadian universities, the following steps are recommended in order to modify PhD programmes of nursing in Iran: Shorten admission and passing PhD course; consider the personal qualities of candidates; consider the scores of research methodology in MSc as a prerequisite; shorten and facilitate dissertation presenting process; set macro mission in PhD programmes and consequently change vision and aims; conduct more flexible curriculums based on students and community needs during PhD course; conduct elective units in order to develop students' competency in career and dissertation; consider independent study courses; consider seminar for dissertation in order to concentrate on students' activities in directing to dissertation; develop clinical skills with training from a good teacher; assist future professional development; plan PhD programmes to train students with critical reflective thinking; consider national and international standards and needs; consider students' interests, specialised and research field in dissertation; make dissertation practical in direction of developing professional needs such as theory making; separate some units and spread them in different terms such as research methodology, which are: term 1, quantitative approach, term 2, qualitative approaches and term 3, critical appraisals of both; consider different roles of PhD candidates in community such as leadership role in community and policy-making; guide students to achieve extensive collaboration between students and supervisors; focus on community-based, competency-based and task-based approaches in training students;

consider health outcomes in training students (position of PhD should be defined in clinical settings); and bring in religion and spirituality, culture and morality in curriculum.

Conclusion

Canadian programmes trained PhD candidates are based on competency-based, task-based and student-based approaches. These approaches were ignored in Iranian PhD educational programmes.

Disclaimer: None.

Conflict of Interest: None.

Source of Funding: None.

References

1. Booklet of guidance for Phd program. Ministry of Health and Medical Education. [Online] [Cited 2012 May 15]. Available from URL: http://www.sanjeshp.ir/PhD/phd_93/Pages/announces003.pdf.
2. Millis A. theorethical nursing. USA 2007incomplete
3. Wood M. The Canadian PhD in nursing. Canadian Association of Schools of Nursing; 2004
4. Farahani M, Ahmadi F. Doctoral Nursing Students' Viewpoints about the Nursing PhD Curriculum. Iranian J Med Educ 2006; 6: 83-92.
5. Ja'faree Harandee R, MeersshahJa'faree E, Leeyaaghatdaar M. A comparison of science education curricula in Iran and few other countries. Quart J New Thoughts Educ 2009; 5: 93-145.
6. Pastor Dk, Cimiotti JP, Stone PW. Doctral preparation in nursing: what are the option? Appl Nurse Res 2004; 17: 137-9.
7. Kermanshahi S, Memarian R, Heseni A, Zamzam S, Nezamli F. A comparison post-graduate MS curriculum of nursing education in Iran and Canada. J Med Edu Dev 2011; 4: 48-54.
8. Hall A. Defining nursing knowledge. Nurs Times 2005; 101: 34-7.
9. Byham WC, Smith AB, Pease MJ. Grow you new leaders: How to identify, develop and retain leadership talent. Upper Saddle River, NJ: Prentice Hall, Inc, 2002.
10. University of Alberta Faculty of Nursing. The PhD Program at the faculty of nursing: For tomorrow, building on today; 2012.
11. Mohammadi M, Dehdarirad T. A competency-based evaluation of car mechanic training courses at universities. J Curriculum Stud 2010; 5: 43-64.
12. Lynch JJD, Carver Jr R, Virgo JM. Quadrant analysis as a strategic planning, technique in curriculum development and program marketing. J Marketing Higher Edu 1996; 7: 17-32.
13. Madah S. Reform in nursing curriculum. Tehran. [online] 2010 [cited 2012 Oct 5] Available from: URL: <http://nursingreform.tums.ac.ir/default.aspx>.
14. Bond J, Karen B. Teaching philosophy of science in nursing doctoral education. J Nurs Scholarship 2003; 35: 87-91.
15. Clinton P, Johnson W. A Report of the National Task Force on Quality Nurse Practitioner Education: criteria for evaluation of nurse practitioner programs; 2012.
16. Ketefian S. Essentials of doctoral Education: Organization of program around knowledge areas J Prof Nurs 1993; 9: 255-61.