

# A Comparative Study of Geriatric Nursing Curriculum in Iran and Rory Meyers College of Nursing, United States of America

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## Abstract

**Background:** Continuous quality improvement in nursing education is crucial to ensure that the curriculum is benchmarked against international standards and best practices, while remaining relevant to the local community. Comparing current programs using a comparative approach is one of the evaluation techniques used.

**Objectives:** The main objective of this paper is to compare the geriatric nursing program's curriculum at the master's level between Iran and the USA (specifically, the Rory Meyers College of Nursing).

**Methods:** This descriptive-comparative study utilized Bereday's model to assess the geriatric nursing curricula. The primary method of inquiry was through secondary sources, primarily information gathered from web pages. Similarities were identified, and comparisons were made using Bereday's Model.

**Results:** We discovered several differences and only a few similarities between the two curricula. However, it's important to interpret the results with caution since these two countries have different macroenvironments and varying stages of the aging process, which significantly influence the need for geriatric medicine and nursing care.

**Conclusion:** This study can be valuable for countries that are starting to experience population aging, as it allows them to learn from well-established programs, avoid potential pitfalls, and gain insights into best practices to enhance their preparedness for advancements in nursing care.

**Keywords:** Geriatric Nursing Curriculum; Aging; Comparative Study; Bereday's model; Iran; USA

## Background

Educational systems and universities play a crucial role in providing specialized and essential knowledge to students, thereby facilitating societal progress towards universal development (1, 2). Curriculum design entails planned strategies that enable learners to master content and engage in optimal pedagogical approaches. Faculties responsible for education develop curricula that outline the overall framework (3). In the field of nursing studies, curriculum design holds significance for advancing increasingly multidisciplinary areas of study. The National Institute of Nursing Research's strategic plan, "Bringing Science to Life," sets research priorities aimed at advancing nursing science and healthcare by integrating biological and behavioral sciences,

leveraging new technologies, promoting health equity, and nurturing future nursing scientists (4). Emerging areas of nursing science highlight significant health priorities, such as addressing the growing burden of chronic diseases linked to demographic changes and an aging population (5). Geriatric nursing, as a subspecialty in nursing education, was approved by the High Council for Planning Medical Science in Iran in 2010 to address the healthcare needs of the expanding older population.

Geriatric nursing programs in Iran are tailored to address the demographic shifts. Based on the population census, older adults aged 60 and over constitute eight percent of the total Iranian population (3, 6). In other words, 5.5 million individuals in Iran are 60 years old and above. This trend is expected to continue, leading to

a significant increase in the number of older adults in Iran by 2030 (6). The implementation of the geriatric nursing educational program is expected to meet the needs of older adults in the Iranian community (3). The first group of students was enrolled in the geriatric nursing program at Tehran University of Medical Sciences in 2011.

Expanding and continuously improving nursing education aims to raise standards by developing competency-based nursing curricula linked to health promotion and disease prevention (1, 7, 8). Continuous quality improvement in nursing education is crucial to ensure that the curriculum aligns with international standards and best practices, while also remaining relevant to the local community. Comparative evaluation of current programs is among the techniques used to assess programs (6). Each university's education system reflects an investment in enhancing human skills. By benchmarking successful educational systems in other countries, it becomes possible to consider the adoption of best practices from similar programs, thereby strengthening one's own curriculum. Exploring the experiences of developed countries in geriatric nursing, while considering Iran's cultural, political, economic, and social context, enables a reflective examination of the challenges facing Iran's higher education system and the enhancement of its curricula (9, 10).

Several models allow for comparative curriculum studies, such as the Enterprise Subject Area Model (ESAM) and Bereday's Four Steps of Comparison Model. The model utilized in this paper is Bereday's (1865) model, which encompasses description, interpretation, juxtaposition, and comparison (6). Bereday's model is well-established in comparative education studies published in English (10-12) and is widely recognized in international literature (10). Therefore, conducting a review and benchmarking of the geriatric nursing program's curriculum in Iran, introduced in 2011, is timely.

### Objectives

In this paper, Bereday's comparative model is employed to compare the geriatric nursing curriculum at the master's degree level between Tehran University and New York University. New York University is chosen as an exemplar due to its emphasis on geriatrics in university education and its alignment with licensure, accreditation, and certification bodies in the United States, all aimed at meeting society's demand for a workforce well-versed in caring for older adults (13).

### Methods

One of the research methods used to modernize curricula is comparative studies. The model employed in this study is the one proposed by Bereday (14). This method examines the content and effectiveness of educational systems and compares programs through four stages: description, interpretation, juxtaposition, and comparison. While this method identifies similarities, it also highlights opposing and contradictory points among different educational systems and assesses their quality. It has been found useful in natural and medical sciences, as well as anthropology (15).

In the descriptive stage, each educational program will be described in more detail. In the interpretation phase, the information gathered in the first stage will be analyzed and interpreted, considering its potential to enhance existing curricula. Description and interpretation contain implicit assumptions about education within national contexts. Moreover, these two parts are closely linked to the idiographic phenomenon of each country (10). The information obtained from the previous steps will be classified and synthesized to create a framework for a clear understanding of the program and to identify potential further developments in geriatric programs. Subsequently, juxtaposition and comparison will be conducted. The geriatric nursing curricula selected for comparison are from two different universities: Tehran University of Medical Sciences and New York University's Rory Meyers College of Nursing. The curriculum specifications of these universities, including mission and program objectives, program length, number of courses, student admission requirements, course titles, and graduate employment opportunities, will be described, analyzed, and interpreted. After juxtaposition, the comparison will be presented.

### Results

A master's program in geriatric nursing educates nurses to provide health, rehabilitation, and social care within the framework of comprehensive policies aimed at promoting the health of the older population. In general, geriatric nursing programs train graduates to integrate advanced knowledge of geriatric nursing with other related disciplines and specialties. They are expected to possess the competence to apply geriatric nursing theories in problem-solving using evidence-based decision-making. Additionally, graduates are trained to deliver prevention and rehabilitation services in the care of older adults, families, and the community. They are expected to be able to identify the biological,

psychological, social, and cultural needs of older adults by utilizing principles of effective human communication. Moreover, they have a responsibility to improve the quality of healthcare and specialized rehabilitation services for this demographic. Geriatric nursing is an integral part of the nursing profession, the healthcare system, the community, and the global community (16). Since the introduction of the master's program in geriatric nursing, numerous students and geriatric nurses have graduated in Iran, although the exact numbers are unknown.

### Geriatric Nursing Program at Iranian Universities

The specifications of the geriatric nursing program at the master's degree level in Iranian universities are presented below.

**Mission:** The increasing life expectancy and prevalence of acute and chronic illnesses among older adults in society have led to a growing need for trained individuals capable of providing nursing services for this population. Furthermore, the rising demand for care and rehabilitation centers necessitates the education of skilled professionals in geriatric nursing. Currently, not a single nurse is trained in geriatric care within the centers of the Ministry of Health and Medical Education, the Ministry of Welfare, and the Welfare Organization. Therefore, there is a lack of competent personnel to plan and provide the necessary nursing services for older adults (16).

The primary mission of geriatric nursing graduates is to reduce mortality and morbidity associated with aging by developing specialized care structures, advancing nursing care, and further training graduates with essential skills and competencies. The objectives in the field of aging and geriatric nursing aim to ensure long-term survival, independence, and self-reliance for older adults. Moreover, the increasing number of older adults necessitates the creation and development of healthcare and social care specifically tailored to this population, both nationally and globally. Additionally, there is a crucial need to deliver community-based health services, particularly home care nursing services, to older adults with acute and chronic physical, psychological, and social problems. This is of paramount importance in the training of master's-prepared geriatric nurses (16).

**Vision:** Training nurses in the field of geriatric nursing aims to achieve the following outcomes:

Development of centers for older adults, providing support and care for clients with disabilities.

Enhancement of nurses' clinical knowledge and skills related to aging in alignment with global and regional standards.

Development of best practices in geriatric care within the community.

Continuous updating of nurses' knowledge and skills in the field of aging through continuing education.

Improvement of the quality of healthcare services for older adult clients and their families.

Enhancement of knowledge and capabilities of geriatric and family counselors for active participation in society.

Collaboration with other countries in the region to address the specific needs of the aging population (16).

**Aims:** The program's aims can be described through the following points. Upon completion of the program, students will be able to:

Assist older adults in achieving maximum performance competencies and capabilities for themselves and their families.

Support older adults in achieving, maintaining, and enhancing their quality of life to the greatest extent possible.

Ensure the provision of necessary resources for older adults and their families to adapt to life changes resulting from the aging process and disabilities.

Facilitate the social participation of older adults within the community.

Contribute and collaborate with academic institutions in developing educational content, including conferences, workshops, and short-term courses on aging-related topics.

Engage in cooperative efforts and participate in research to improve the delivery of health services for older adults.

Identify the need for research on aging-related issues.

Contribute to the creation and development of research initiatives aimed at enhancing the provision of health services for older adults.

Participate in the establishment and growth of research centers focused on improving health, care, and rehabilitation in the field of aging (16).

Graduates of this program have roles in nursing care, education, and research.

#### a. Care

Demonstrate commitment and responsibility in fulfilling functional roles.

Observe and enforce ethical codes while safeguarding the rights of older adults and their families.

Collaborate and cooperate with healthcare team members in providing nursing care and services to older adult patients.

Evaluate and prioritize the needs of older adults and their families in delivering nursing care.

Communicate effectively with older adults, their families, and other team members.

Make appropriate referrals to the healthcare system when necessary.

Collaborate with other members of the geriatric health team in delivering services (16).

#### **b. Education**

Provide training and counseling to older adults, their families, and the community in the three levels of prevention.

Utilize new information and knowledge to improve the provision of nursing services for older adults.

Contribute to the development and selection of up-to-date and authoritative educational materials related to aging.

Collaborate with academic institutions in designing training content.

Organize workshops, conferences, and short-term programs on age-related subjects (16).

#### **c. Research**

Collaborate and actively participate in the implementation and development of geriatrics research.

Study the needs of older adults and contribute to research projects on aging-related issues.

Utilize new tools and technologies to conduct research in various areas of older adults' health.

Publish research findings on aging in the form of articles and conference results.

Contribute to the establishment and growth of research centers focused on improving health, care, and rehabilitation in the field of aging.

Apply evidence-based research findings to enhance nursing services in the field of aging.

Engage in research aimed at providing community-based health services tailored to the needs of older adults (16).

*Student admission requirements and procedure:* Students must meet the following requirements, in addition to general qualifications:

Hold a bachelor's degree in Nursing approved by the Ministry of Health and Medical Education.

Qualify for the entrance examination by participating in the graduate baccalaureate nursing exam.

Have good physical and mental health (16).

*Course specifications:* The duration and structure of the program are based on the regulations for graduate master's degrees approved by the Supreme Council for Medical Science Planning (16).

The total credits required for the program are 32, which include seven core credits, 21 specialized credits, and four credits for the dissertation. Students are also expected to complete four credits of compensatory courses, covering computer skills, statistics, and advanced research methodology. The modules covered

in the program include nursing ethics and professional relationships, nursing theories and models, clinical nursing management, teaching methods and educational planning, geriatric epidemiology, assessment of the health status of older adults, geriatric pharmacology and supplements, healthy and active aging, geriatric nursing 1, 2, and 3 (covering physical and functional disorders, psychological status, and social problems of older adults), geriatric care structures and systems, computer systems and medical informatics, statistics and advanced research methodology, and the dissertation (16).

The learning methods employed in the program include student-centered approaches such as problem-solving, combined methods, discussions, and promotion of critical thinking. Both theoretical and practical modules will be evaluated (17).

#### **Geriatric Education and Practice in the United States**

In 1965, Loretta Ford, a nurse, and pediatrician Henry Silver partnered to create the first pediatric nurse practitioner master's program in the US at the University of Colorado to address the need for primary care providers in rural Colorado (18).

Due to the shortage of healthcare providers with expertise in caring for the growing geriatric population, the Advanced Practice Registered Nurse and the National Council of State Boards of Nursing APRN Advisory Council introduced the LACE model in 2008. This model aimed to standardize the licensure of NPs, the accreditation of educational programs, the education of various types of NPs, national certification practice requirements, and the need for an increased number of providers capable of caring for geriatric patients (APRN Consensus Work Group and National Council of State Boards of Nursing APRN Advisory Committee, 2008).

As of 2018, there were 49.2 million older adults in the US, with the number expected to increase to over 80 million by 2050 (American Geriatric Society, 2018; Ortman, Velkoff, and Hogan, 2014). The number of full-time practicing certified Geriatricians in 2017 was 3,590, with an expected 45% increase in demand by 2025 (American Geriatric Society, 2018). The LACE model defined six population foci for NPs and Clinical Nurse Specialists, with Family Nurse Practitioners and Adult-Gerontology Primary Care and Acute Care NPs trained in addressing the needs of the geriatric population. Currently, there are over 248,000 NPs in the US, with 91.3% of them trained to care for older adults (19). Nurse Practitioners are clinicians trained at the master's level to diagnose and treat acute and chronic conditions, order lab work and diagnostic tests, prescribe

medications and other treatments, provide patient education and counseling, with a focus on health promotion and disease prevention. They work in various healthcare settings, including clinics, hospitals, emergency rooms, urgent care sites, private physician or NP practices, and nursing homes (20).

**Mission:** "At NYU Rory Meyers College of Nursing, we generate knowledge through research in nursing, health, and interdisciplinary science. We educate leaders in nursing to advance healthcare locally and globally. We provide innovative and exemplary healthcare. And we shape the future of nursing through leadership in healthcare policy" (NYU Mission, n.d.).

**Vision:** "A global leader in advancing health for all people where they live, play, learn, and work" (NYU Vision, n.d.).

**Aims:** New York University houses the Hartford Institute for Geriatric Nursing (HIGN) since 1996. In fact, HIGN is a leader in developing and researching gerosensitive care in the community within primary care, home health, hospice, and social services agencies. One of their well-known models of care is the Nurses Improving Care for Health Systems Elders (NICHE) program, which provides online training for hospital and long-term care leaders with the goal of improving geriatric care (Brown, 2016). Master students entering the AGPCNP (Adult-Gerontology Primary Care Nurse Practitioner) program may have been employed in one of the 700 acute care facilities that have engaged HIGN to train their employees in evidence-based inpatient geriatric care. Consult Geri, a clinical website of HIGN, provides evidence-based assessment tools for students and clinicians to screen patients for typical geriatric syndromes (Consult Geri, n.d.). Within this rich environment, the Adult-Gerontology Primary Care Program educates masters-prepare providers to be able to provide health promotion advice and care, diagnose illness, and treat acute and chronic conditions. In New York, these providers must meet the requirements set by the New York State Office (NYS) of the Professions (NYSED.gov, n.d.). In July 2015, NYS passed the NP modernization act that allows NPs with 3,600 hours of experience to practice without a collaborative agreement with a physician (New York State Assembly Bill number A04846, 2013). Twenty-one states and the District of Columbia now permit NPs full practice authority to evaluate patients, diagnose, order, and interpret diagnostic tests, and initiate and manage treatments—including prescribing medications and controlled substances—under the exclusive licensure authority of the state board of nursing (21).

**Student admission requirements and procedure:**

Students create online applications on an NYU Meyers Graduate program website, and they enter their transcripts, two professional letters of reference, a personal statement, New York Registered Nurse license, and a general questionnaire into the student admission program. This application process allows international students and students from other states to apply to this graduate program with only the internet as a requirement. Admission is academically competitive to this "private university in the public's service".

**Course Specifications:** Fifty-one credit hours are required for completion of the NYU Meyers graduate program. The twelve credits of core courses include statistics for the health professions, research in nursing, nursing issues and trends within the healthcare delivery system, and population-focused care. The fifteen advanced core courses include advanced Pathophysiology, clinical pharmacotherapeutics across the lifespan, advanced physical assessment across the lifespan, contemporary Clinical Practice: Advanced Practice Roles, and one elective course. Elective courses offered include substance abuse theory, advanced holistic nursing foundations, nursing informatics, an introduction to palliative care, and fundamentals of quality improvement and financial management for nurse leaders. The 24-credit population component for the adult-gerontology primary care NP students includes health promotion across the lifespan, common health problems of adults and older adults and a seminar inclusive of 16 clinical practice hours, geriatric syndromes and seminar inclusive of 125 clinical hours, mental health across the lifespan of adults and older adults, adult-gerontology primary care II and the adult-gerontology primary care practicum II inclusive of 250 clinical hours, and adult-gerontology primary care III and the adult-gerontology primary care practicum III inclusive of 250 clinical hours. Clinical practice hours, a total of 641 hours of direct primary care in physician's offices, hospital outpatient clinics, nursing homes, homeless shelters, and mobile vans in community venues. Students also have 31 simulation hours in a state-of-the-art simulation lab in physical assessment and common health problems, where they practice delivering care in a supervised environment with formative and summative evaluations of their care by faculty.

**Learning methods:** Case-based learning provides students with the opportunity to follow a patient through multiple visits as a disease process evolves. This allows students to assess the necessary changes in history, physical examination, diagnosis, care plan, and

the potential need for specialty referral or a transfer to an acute care facility or nursing home. Through this approach, students are introduced to the complexities of caring for older adults with multiple comorbid conditions and polypharmacy, as well as the importance of palliative and end-of-life care. The ability to think critically and apply evidence-based principles is assessed through quizzes and exams, and students are expected to apply their didactic learning in real-world clinical settings, refining their knowledge and skills under the guidance of physicians and NPs. Workshops are conducted to teach joint injection and basic suturing techniques, and students undergo an embedded online ECG course over two semesters to develop proficiency in reading 12-lead ECGs and identifying arrhythmias. As part of their program, students are required to complete a capstone paper over three semesters. This involves formulating a PICO question and conducting a literature review to evaluate the current evidence. This process enables students to assess the levels of research and critique existing studies using the online critical appraisal skills program (CASP, 2018), with the ultimate goal of creating a publishable article.

### Discussion

Curriculum evaluation can be conducted in different ways, and comparing curricula with each other is one of the available methods. The programs can be compared using various approaches. The comparative approach is commonly used in social sciences to compare different cultures or countries, examining multiple aspects. Curricula are usually developed and presented in response to the needs of society, with the expectation that graduates will meet these needs. In this section, we attempt to apply the remaining three of the four stages of the employed method: interpretation, juxtaposition, and comparison. At the outset, readers must interpret the findings based on the country differences (economic, social, technological, and demographic maturity) and the environments in which each university operates. We will now proceed to conduct a juxtaposition and comparison of the two programs.

The description provided above regarding the two programs at the master's level reveals that the program in Iran is new, having been introduced in 2011, while the program in New York is well-established. It is evident that the program offered by the University in New York fulfills all elements of quality assurance with a well-established curriculum that adopts a holistic pedagogical approach, promoting higher-order learning and lifelong learning. We are unable to identify many similarities between the programs, other than the shared

objective of providing care for the elderly population by adopting the best practices and integrating research to continuously improve care and services for older adults. Another similarity lies in the methods of assessment, as both programs employ summative and formative assessment methods. While both programs have a mission and vision statement, the mission and vision statement of New York University's Meyers College of Nursing program is clear and easily understandable, providing a strategic direction for program success. On the other hand, the mission of the Iranian University is overly complex, making it difficult to discern its primary focus and strategic direction. Additionally, it may be time to refresh the mission and vision statement, which was developed in 2010.

Again, it is challenging to find many associations between the two programs other than their aim to provide care and meet the nursing needs of older adults, as explained earlier. However, within each program, it is evident that New York University's Meyers College of Nursing program demonstrates a clear alignment in terms of curriculum, pedagogy, and assessments, which can be attributed to the clear vision and mission statement that drives curriculum design. The pedagogy and courses effectively address different levels of learning, providing the necessary training to prepare graduates to serve the older population. Notably, the practical training component involves 641 hours of direct primary care in various settings, such as nursing homes, homeless shelters, and mobile vans. Please refer to the [Appendix](#) for a summary comparison of the two programs.

In the program in Iran, the vision and mission statement is lengthy and complicated, leading to confusion and a lack of a clear and unidirectional strategy. Some of the program's aims are not framed using adjectives that allow for measurement. Without measurability, it becomes difficult to assess whether graduates possess the intended profile outlined in the program. Additionally, the program aims are not sufficiently clear in terms of whether they are for students or for the care receivers (older adults) (see, for example, aim number 1). While the entry requirement is clear, and the fulfillment of credit requirements is well explained, information on the pedagogy and methods of assessment is lacking, making it difficult to interpret and compare the effectiveness of the assessment methods in developing higher-order learning skills. Furthermore, the program lacks the practical training component found in the US program, where there is a strong emphasis on skill development through practical and simulation-based approaches.

In conclusion, the US program, represented by New York University's Meyers College of Nursing, has made significant advancements in addressing aging issues and produces competent graduates in geriatric care. While the introduction of a geriatric nursing care program in Iran is a positive step, improvements are needed, such as incorporating practical and simulation lab training and fostering a culture of continuous improvement to further develop the program at Tehran University of Medical Sciences.

### Conclusion

The US is at the forefront in addressing aging issues, thanks to advancements in the medical field, and the program at New York University's Meyers College of Nursing produces competent graduates in geriatric care. Iran's introduction of a geriatric nursing care program is a positive step, but there is room for improvement, particularly in areas such as practical and simulation lab training, as well as fostering a culture of continuous improvement for the further development of the program at Tehran University of Medical Sciences.

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**Appendix.** Comparison of the Master in Geriatric Nursing in Iran and the US

	<b>Tehran University of Medical Science, Iran</b>	<b>New York University Meyer's College of Nursing, US</b>
Vision	Complex	Clear
Mission	Complex	Clear
Program Aims	Many and some are not measurable	Well-structured and can be measured
Graduate Profile	None	None
Entry requirement	Clear	Clear
Credit Specifications and Courses	32 credits Clear with theory-focused courses and lack practical training	51 credits Clear with well-structured courses for learning at all levels, including clinical practice hours and training in simulation labs
Pedagogy	A bit limited	Varied
Assessment Methods	Both summative and formative assessment methods can be observed	Both summative and formative assessment methods can be observed