### **Special Article**

# **Nursing in Greece and Iran: A Narrative Comparison**

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#### Abstract

Introduction: Nursing, being a humanistic profession, includes the promotion of health, the prevention of disease and the holistic care of patients, including those with disabilities and the terminally ill. Nursing education and training in Greece conforms to EU standards, thus providing mutual recognition of qualifications according to European Community directives. Moreover, nursing in Iran is heavily associated with the underlying socio-cultural forces that have affected the country, society and the profession per se in recent decades.

Aim: The purpose of this self-reflective commentary is to narrate and describe nursing in two dissimilar countries and health care systems, i.e. Greece and Iran. Methods: This report was based on the lived experiences of an Erasmus+ student who has spent time studying and training as a nurse in both Iran and Greece. The self-narratives were complemented by a comprehensive computer-based search, which was conducted in various databases which revealed 16 relevant articles.

Results: a number of similarities and differences are portrayed in this comparative narrative which shows that despite the vast geographical and geopolitical contrasts, nursing in both countries have made a determined and conscious effort to upgrade and improve standards of nursing education and practice.

Discussion: Overall, there are distinct similarities and differences between Iranian and Greek nursing in terms of both education and practice. As expected, there are noticeable differences in the priorities in the nursing education of the two countries but moving this into universities has raised the standards of nursing students' clinical and theoretical preparation.

Conclusions: Overall political and public policies play a pivotal role in shaping the image of nursing in both societies. Yet, the authors believe increasing motivation among Greek and Iranian nurses, and promoting the socio-cultural climate and the welfare of the profession would result in higher levels of quality of care as well as greater patient satisfaction.

Key words: nursing education, practice, Greece, Iran

### **Background**

Nursing, is the science that incorporates the independent and interdisciplinary care of people of all ages, their families, their extended groups and different communities, patients or healthy individuals in all health care facilities. Nursing, being a humanistic profession, also includes the promotion of health, the prevention of disease and the holistic care of patients, including those with disabilities and the terminally ill (Theofanidis

& Sapountzi-Krepia., 2015). Advocacy, promoting the idea of a safe working environment, supporting a research ethos, participation in health policy design and implementation, organization and system administration are also issues contemporary nurses are and should be more concerned with. Within these lines, a nurse is a health care professional, certified by an appropriate academic institution, with a core curriculum in nursing science and registered in the corresponding official Register for Nurses (van Kraaij et al., 2023; Zabalegui et al., 2006).

Since 2004 the nursing profession in Greece has been regulated by a self-managed authority i.e. the Hellenic Regulatory Board of Nurses. The aim of the board is to ensure that all licensed practitioners are best fit for practice. According to Eurostat (2018) data, there were 19,743 practicing nursing professionals in Greece in 2018 with 3.24 nurses /1000 inhabitants (OECD, 2018).

Moreover, nursing education and training in Greece conforms to EU standards, thus recognition providing mutual qualifications according to European Community directives (Antão et al., 2023).

For undergraduate studies, a Greek student will have to pursue a four-year degree in a university, requiring 240 European Credit Transfer Scheme credits for graduation. In addition, there are nursing assistants, with a distinct auxiliary role though, who may graduate from occupational training schools, either public or private, involving two-year studies at pre-tertiary education level (Economou et al., 2017).

Nursing education is provided free of charge by the state and foreign students are not permitted to study nursing at Greek universities without having first taken the Greek high school examinations. With regards to post-registration nursing education, there are a number of Master's courses with fees and the possibility to study at Doctoral level.

Although the ratio of nurses to population was on a steady increase over the course of the 2000s, this was abruptly stopped during the financial crisis in Greece starting 2010 and is still one of the lowest in the EU. As most nurses work in the public sector, they are paid based on a Common Payroll Algorithm, which was established in 2011, receiving similar salaries to other public servants, i.e. 750-1200€ per month, depending on their years of experience and qualifications. On the contrary, nurses employed in the private sector earn 15-20% less compared to those in the public sector, with some exceptions.

In order to describe contemporary nursing in Iran one needs first to acquire an insight into the underlying socio-cultural forces that have

affected the profession in recent years. Thus, nursing in Iran has progressed from the traditional apprenticeship nurse training style to the prestigious baccalaureate degree in the higher education sector. Yet, despite the many changes since the Islamic Revolution in early 1980s, nursing in Iran is still striving for better acceptance and full recognition as a care profession. However, it is acknowledged that the nursing profession in Iran, as in other West and East Asian countries, still 'suffers' both from an identity and image concept of nurses not being fully recognized and respected despite advances in nursing practice, education, and research, necessitating social and policy changes (Nasrabadi et al., 2004).

Moreover, despite considerable advancers in nursing education in Iran, and although overall satisfaction is confirmed in four out of five patients admitted to hospitals, complete satisfaction with nursing care is only found in 38% as a recent meta-analysis study by Hosseini et al., (2023) demonstrates. These findings necessitate the need for more research in order to identify the effective factors related to patient satisfaction with nursing care.

Another problem area that nursing in Iran is facing is the prevalence of medication errors as indicated by Fathizadeh et al., (2024) probably due to nurse shortages, increased workload and exceptional fatigue. In order to reduce medication errors among nurses, Iran just like many more countries, needs to implement medication safety protocols, provide more training and support in this area and promote a culture of error reporting without fear of consequences. Thus, in order to achieve this, the Iranian healthcare system must prioritize creating a safe and supportive work environment for nurses with sufficient staffing levels.

Aim: The purpose of this self-reflective commentary is to narrate and describe nursing in two dissimilar countries and health care systems, i.e. Greece and Iran.

#### Methods

This report was based on the lived experiences of an Erasmus+ student who has spent time studying and training as a nurse in both Iran and Greece. The self-narratives were complemented by a comprehensive computer-based search, which was conducted in PubMed, Scopus, ProQuest, Google Scholar, ISI web of knowledge, and Cochrane databases. Time wise, the search strategy had no early limit ranging until April 2024. Finally, 16 articles were included in this descriptive-comparative paper. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses 2020 guidelines were used.

#### **Results and Discussion**

### Nursing education and practice in Greece

In Greece, only Higher Education Institutions (tertiary education), i.e. Universities, offer nursing degrees.

University Studies: Admission to University in Greece can be achieved through four main routes, i.e.:

- 1) Pan-Hellenic (national) exams
- admission 2) Special exams
- 3) Qualifier exams
- d) Transfer from another University.

Thus, admission to a university nursing department mainly occurs through the Pan-Hellenic exams, with prospective students coming from two different types of High Schools as follows:

## Lyceum or General/Public High School

Students or High School graduates following the 'Health and Life Sciences' field must take examinations in the following subjects: Modern Greek Language and Literature, Physics, Chemistry and Biology. example, in terms of student achievements in order to enter nursing school, in 2023 the minimum total score to enter the Nursing Department of the International Hellenic University (IHU) was 12,872 points with 20,000 being the maximum that can be attained.

## Vocational High School

Students or graduates, following the field of 'Health, Welfare and Wellness' and the specialty of 'Nursing Assistant' are examined in the following subjects: Modern Greek Language, Mathematics, Hygiene Anatomy - Physiology II. The minimum score for admission for these candidates to the Nursing Department of the International Hellenic University, in 2023, was 18,395 points out of a maximum score of 20,000.

Alternative Studies in the field of Nursing: There are also alternative nursing studies of a lesser qualification, i.e. auxiliary nurses, which provide the distinct role of a 'nursing assistant'. Thus, the certification of a nursing assistant may be obtained in two ways:

Vocational High Schools provide the qualification of a nursing assistant. More specifically, students in Vocational High Schools, following the specialty of the 'nursing assistant' path can get their qualification with or without taking part in the Pan-Hellenic exams. They also have the opportunity to an 8-month internship which will substantiate their final qualification, providing more solid professional experience and further knowledge and enabling them to register their professional accordingly.

Vocational Training Institutes also provide certificates for nursing assistants. These institutes are either public or private but in both cases the training remains fundamentally the same as above. The study duration is two years followed by a mandatory 6-month internship.

### How staff nurses differ from nursing assistants?

It is quite common in Greece to confuse staff nurses with nursing assistants because many citizens lack the knowledge about the different qualifications needed for various health care posts. Nursing assistants are a separate profession per se, they are part of the auxiliary health care personnel with auxiliary responsibilities. Hence they should not be confused with staff nurses as they have such different levels of education. They also do not have the scientific background or theoretical and practical knowledge that staff nurses posses. Furthermore, they do not have the same professional rights, pay, career opportunities or the same clinical duties as staff nurses.

This confusion is further fueled by the common mistake of using both the words «Νοσοκόμα» (lower professional status) which refers to nursing assistants and «Νοσηλεύτρια» (higher professional status) which attributes the term 'nurse' to describe staff nurses. It's a reoccurring incident, due to the belief that these two words

synonymous and may be used interchangeably. Nurses and Nursing Assistants do share some tasks and duties, but they still remain two separate professions, and they should not be mixed up. This mix up is exacerbated and primarily due to a linguistic

element whereby the term «νοσοκόμα» is translated in English as simply 'nurse'.

The following table shows a small comparison between the professions:

Table 1: Job descriptions for nursing assistants and staff nurses

Nurse	Nursing Assistant
Is a responsible professional	Is a responsible professional
Promotes health & prevents disease	Promotes health & prevents disease
Provides & evaluates care	Provides & monitors care
Heads/manages care & works in teams	Works in teams (but cannot lead them)
Coordinates care	Improves safety & quality of care
Improves safety & quality of care	Contributes to the completion of care
Evaluates needs & care plans	

**Post** – **Graduate Studies:** Nursing graduates from university also have the opportunity to further their studies at Master's and Doctoral levels, like all university students. These courses are paid for at Master's level with the PhD degree being free though.

Clinical Specializations: Nurses can receive various clinical sub-specialties and

specializations. The total time required to obtain a clinical specialty amounts to eighteen months and six months to obtain a nursing specialization which presupposes the acquisition of a nursing specialty. The full list of available specialties and specializations can be found in table 2 below.

Table 2: Clinical specialties and specializations for staff nurses

Specialties	Specializations
Palliative & Supportive Nursing Care	Extracorporeal Circulation Management
Gerontology Nursing	Nephrology Nursing
Emergency & Intensive Care Nursing	Anesthesiology Nursing
Public Health Nursing/Community Nursing	Rehabilitation Nursing
Cardiovascular Disease Nursing	Infection Control Nursing
Pediatric Nursing	Nursing in Diabetes
Psychiatric Nursing	Surgical Nursing
Oncology Nursing	Transplant Coordinator Nurse
Internal Nursing	Dermatological Nursing
Peri-operative Nursing/Surgical Nursing	

**Private Duty Nurses:** Private Duty Nurses (PDNs) i.e. nursing staff employed by the private health care sector can be tertiary education graduates but it is not necessary to hold a nursing degree to work as a PDN as quite often nurse assistants are widely employed in a attempt to provide full nursing tasks. Although, PDNs must meet the following criteria:

- A minimum of 9 years of basic education (6 years of primary and 3 years of secondary education)
- A health certificate verifying absence if transmissible diseases
- No criminal record
- At least 1 month full-time training in a hospital with more than 200 beds,

excluding those who have a qualification of vocational nursing of at least one year duration.

In the Lazaridis (2007) study with immigrant women working as private nurses in Greece, the vast majority had non-nursing-related education and professional college backgrounds. The majority of them were hired by patient relatives who were unable themselves to stay with patients due to their work and other family obligations. Greek hospitals began using PDNs as auxiliary staff some decades ago. Some formal evidence indicates that PDNs existed since the 1950s. The law decree number 1846 of the year 1952 mentioned allocation of licensed PDNs to the Social Insurance Fund. Another form of employment for PDNs is to work as a 'private nurse' within a public hospital, which means that the family of a patient may hire privately a nurse to look after their loved one for specific shifts on a one-to-one basis. In this arrangement (which is formally allowed by the public sector), the private nurse seeks work through the director of nursing services of a public hospital and, on acceptance, they are added to its official list of available nurses on demand and they are paid by the family (out of pocket expenses). Each time a patient requests a 'private' nurse the hospital recruits from its priority list. There are early, late and night shifts available, each 6h and 40min long, which means that PDNs work fewer hours than staff nurses. This is because the PDN profession was characterized in 1966 as 'heavy duty' occupation with reduced shifttime (i.e. normally 8 hours).

Overtime is available if mutually agreed between the patient and the private nurse, and is paid extra. Moreover, private nurses are required to issue receipts for payments and to make their social insurance contributions. As for their clinical duties, their responsibilities are to provide hygienic care to the patients, to report emergency needs to staff, to meet the patients' basic needs such as assisting patients with eating, administering medicines (mainly orally), changing dressings and to stay awake all night long to take care of them.

Working as a Nursing Graduate: When it comes to the field of work, a graduate nurse can work both independently and with other

health professionals and scientists in the clinical field as a member of the interdisciplinary team. According to their education, an nurse can work as an executive in Hospitals (Public & Private) clinics, health centers, vaccination centers and laboratories as well as in agencies and organizations such as the National Organization of Public Health, the National Organization for the Provision of Health Services, Centers for Disease Control and Prevention, in research centers, even in the World Health Organization.

In addition, they can work in rehabilitation centers, diagnostic centers, pharmacies, pharmaceutical companies, physiotherapy clinics, in health insurance organizations, nursing homes, community centers for Open Protection of the Elderly, nursing institutions, kindergartens, thermal baths, in rural or semirural clinics and ships and in various companies or industries as occupational nurses. A holder of a nursing degree can also work as a school nurse for public and private schools, colleges and universities (Theofanidis & Fountouki, 2008). However, it is only just becoming more common for public schools in Greece to include a school nurse in their personnel. In the field of education, they can work as teaching stuff in secondary education, and in higher education (university) as teaching – research staff.

Moreover, they can work as a crew member in an ambulance or mobile unit, in home help programs for municipalities, sports centers and large companies that have clinics for staff as well as freelancers, hired by individuals for patient care at home.

Finally, they can work in the fields of research (Theoretical and Applied) and policy planning in the field of health (public health policy). Nursing graduates from Greece can practice the profession in all countries of the European Union in accordance with each country's respective provisions.

**Payment:** Salary range for nurses within the public sector range from 628€ to 1,911€ per month – 2023. Gross monthly earnings of a nurse usually range between 628€ to 913€ at the start of the profession. After 5 years of work, the corresponding monthly amount ranges between 784€ and 1,118€ for 40 hours of work per week. Nursing in Iran:

Nursing education and practice in Iran History of Nursing in Iran: In 1915 the American Presbyterian Missionary Society (APMS) began the training of a few nurses in a small missionary hospital; and a year later a three-year nursing school was established in Tabriz. After 1916, nursing schools across the country expanded, leading to greater need for an educational nursing faculty. The WHO assisted, and other teaching recruits came from England and United States. In 1943, Iranian nurses educated abroad formed the Iranian Nursing Association (INA). After the World War, Second nursing momentum as a profession with the establishment of the three-year Ashraf School of Nursing with nursing faculty members from England. In 1952, the Ministry of Health established a nursing division, and for the first time nursing officially became an official governmental body.

The first university Bachelor of Science degree in Nursing (BSN) began in 1967 at Shiraz University, followed by the Associate Degree of Nursing (ADN) program in 1975. Although this created some role ambiguity, thereafter nursing education in Iran was on the move, adding a Master of Science in Nursing (MSN) program with many different specialties. In 1979 when the Islamic revolution took place, the government decided that nursing school admissions should be 50 percent males, with the understanding that men should care for men and that women must be kept separate from the men (Hazrati et al., 2011). In 1986, approximately 50 percent of the baccalaureate students admitted to the nursing program were men; however, more recently, (2004), this decreased to approximately 20 percent (Nasrabadi et al., 2004).

How to enter Nursing School in Iran: At present, the baccalaureate program is the basic nursing qualification at an academic level and is the only way leading to registration as a professional nurse (Farsi et al., 2010). Entering this program involves taking a national exam called 'Konkur'. The prerequisite of taking this exam is a certificate called 'Diploma' that shows the applicant has finished high school. The applicant has to

answer to questions of eight subjects. These subjects are: Biology, Chemistry, Physics, Mathematics, Persian literature, English, Arabic language and Religious instructions.

Applicants with adequate grades subsequently allowed to enroll in a nursing course in university. Hence, the applicant reaches a nurse student status with 4 years (8 semesters) ahead leading to a bachelor's degree. Nursing students begin clinical training from the second semester and this is run concurrently with theoretical courses until the end of the third year. The fourth year is allocated exclusively to clinical placement training. Nursing students are predominately trained in teaching hospitals and they are trained in the clinical environment under the direct guidance and supervision of a nurse instructor for the first three years. In the final year, they work under the direct guidance of staff nurses and the supervision of nurse instructors (Farsi et al., 2010).

At present, the nursing curriculum throughout Iran is accredited by the Ministry of Health & the Ministry of Education (Peyerovi et al., 2005). This program includes professional foundation courses i.e. 28 credits with a biological content, and nursing courses, i.e. 53 credits on theory with a biomedical nursing content and 33 credits on clinical preparation (Cheraghi et al., 2008). Courses offered for a nursing degree in Iran are described in the following table.

# **Enrolment in a Master of Science degree:** In order to enroll for a Master's degree, the

applicant must hold a bachelor's degree in nursing and to have successfully passed the annual competitive examination. The Master of Science degree in nursing is a 2-3 year course with a clinical program containing 32 compulsory and optional credits in total (Farsi et al., 2010). There are 11 clinical fields in which the Master's degrees are available as follows: Emergency nursing, Rehabilitation nursing, Medical-Surgical nursing, Geriatric nursing, Community health nursing, Pediatric nursing, Intensive care unit nursing, Neonatal intensive care nursing, Military nursing, Psychiatric nursing and Nursing management.

Table 4: Undergraduate nursing curriculum in Iran

	Anatomy
·	Physiology
	Biochemistry
Basic Sciences	Information Technology in Nursing
Basic Sciences	Genetics and Immunology
	Basic vital statistics
	Parasitology
	Maternal and Neonatal Health Nursing
	Nursing in maternal and neonatal health disorders
	Basic Nursing Concepts
	Senior Adult Nursing 1
	Senior Adult Nursing 2
	Senior Adult Nursing 3
	Comprehensive nursing care in special sectors
	Emergency nursing in crisis and unexpected accidents
	Principles of Nursing Services Management
	Healthy child nursing
	Nutrition and Nutrition Therapy
	Epidemiology Principles & prevention of common diseases
Specialized Courses	Individual-Social Psychology
Specialized Courses	Pharmacology
	Specialized English
	Patient education process
	Nursing Principles and Skills
	Nursing ethics and professional communication
	Individual and Family Health Nursing
	Community health nursing
	Nursing and environmental health
	Health status nursing
	Pediatric Diseases Nursing
	Mental Health Nursing
	Mental Diseases Nursing
	Home care nursing
	Principles and Skills Internship
	Emergency Internship
	Senior Adult
	Maternal and Neonatal
	Pediatric Internship
Internship and Field Internship	Internship of the Principles of Nursing Services Management
	Nursing of Special Care Internship
	Mental Health Internship
	Pharmacology Internship
	Common Problems in Iran Internship
	•
	Health Internship

Enrollment in a PhD program: There is also an option for Master graduates to enroll in a PhD program. The duration of the program is a minimum of 4.5 years and consists of 45 credits including 20 credits for a dissertation. The students accepted into the doctoral programs are Master of Nursing graduates who have been successful in both the annual competitive nationwide examination and the interview with the Iranian Board of Nursing (Farsi et al., 2010).

Nursing dress code in clinical setting: Students' formal coats in clinical settings should be white, clean, tidy in appearance, comfortable, long, suitable for the season and buttoned. Female students should wear scarves covering the entire hair. Students should wear appropriate socks and avoid appearing in clinical settings without socks. Shoes should be comfortable, clean, and have a wide toe as well as mild and proper color. Slippers are not allowed in clinical settings. Tight pants and coats with improper colors should be avoided. Wearing T-shirts and sports suits which display improper words and images should also be avoided. Students are required to carry a valid photo ID in clinical settings all the time which includes the initial letter of their first and last name, title, school, and field of study. Pieces of jewelry including bracelets, necklaces, bangles, gold rings (this does not include wedding rings) and sharp or allergy-causing perfumes should also be avoided. One should be mindful to keep nails short, clean and without nail polish. Due to the increased risk of infection and the possibility of hurting patients, long or artificial nails are forbidden. Male students should not have hair longer than the normal suggested length.

Conclusions: Overall, there are distinct similarities and differences between Iranian and Greek nursing in terms of both education and practice. As expected, there are noticeable differences in the priorities in the nursing education of the two countries but moving this into universities has raised the standards of nursing students' clinical and theoretical preparation. Overall political and public policies play a pivotal role in shaping the image of nursing in both societies. Yet, the authors believe increasing motivation among Greek and Iranian nurses, and promoting the socio-cultural climate and the welfare of the profession would result in higher levels of quality of care as well as greater patient satisfaction.

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