



Geriatric care in European countries where geriatric medicine is still emerging

George Soulis¹ · Yulia Kotovskaya² · Gülistan Bahat³ · Sofia Duque⁴ · Radhouane Gouiaa⁵ · Anne W. Ekdahl⁶ · Cornel Sieber⁷ · Mirko Petrovic⁸ · Athanase Benetos⁹

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Key summary points

Aim To describe several aspects that affect practicing geriatric medicine in five different countries: Greece, Portugal, Russia, Turkey, and Tunisia

Findings Discrepancies exist between countries concerning all aspects of geriatric medicine (recognition, training, educational and professional standards, academic representation, working context).

Message Specificities of each country that set the frame should be taken into consideration in promoting geriatric medicine in different settings.

Abstract

Purpose Practicing geriatric medicine is a challenging task since it involves working together with other medical doctors while coordinating a multidisciplinary team. Global Europe Initiative (GEI) group within the European Geriatric Medicine Society gathers geriatricians from different regions where geriatrics is underrepresented or still developing to promote initiatives for the advancement of geriatric medicine within these countries.

Methods Here we present a first effort to describe several aspects that affect practicing geriatric medicine in five different countries: Greece, Portugal, Russia, Turkey, and Tunisia.

Results We can notice discrepancies between countries concerning all dimensions of geriatrics (recognition, training, educational and professional standards, academic representation, working context).

Conclusions These differences correspond to the specificities of each country and set the frame where geriatric medicine is going to be developed across Europe. EuGMS with GEI group can provide useful support.

Keywords Geriatric medicine · Development · Recognition · Educational and professional standards · Service organisation

✉ George Soulis
geosoulis@yahoo.com

¹ Outpatient Geriatric Assessment Unit, Henry Dunant Hospital Center, Athens, Greece

² Russian Clinical and Research Center of Gerontology, Pirogov Russian National Research Medical University, Moscow, Russia

³ Department of Internal Medicine, Istanbul Medical School, Istanbul University, Capa, 34390 Istanbul, Turkey

⁴ Lisboa Ocidental Hospital Center, Lisbon, Portugal

⁵ Policlinique CNSS, Sfax, Tunisia

⁶ Section of Geriatric Medicine, Department of Emergency Medicine Helsingborg Hospital and Department of Clinical Sciences, Lunds University, Helsingborg, Sweden

⁷ Institut Für Biomedizin Des Alterns, FAU Erlangen-Nürnberg, Nürnberg, Germany

⁸ Section of Geriatrics, Department of Internal Medicine and Pediatrics, Ghent University, Ghent, Belgium

⁹ Department of Geriatrics and FHU CARTAGE, CHU de Nancy and INSERM 1116, Université de Lorraine, Nancy, France

Introduction

Ageing population is a global trend. Even in relatively “young” countries, people over the age of 80 years are the most rapidly growing segment of the population. As a result, health services are dealing with an increasing number of older patients, those with geriatric profile included. Geriatric medicine has been developed to meet this challenge and has proved that it is an efficient and cost-effective approach. It is, therefore, essential to train geriatricians who have knowledge and skills necessary for high-quality care provision to older patients and to educate physicians of other specialties and other health care professionals working with older patients.

The European Union Geriatric Medicine Society (EUGMS) was created in 2001 with the mission to develop geriatric medicine in Europe as an independent specialty caring for older people with age-related diseases, to support that these services become available to all European citizens, to support the development of health services suitable for an ageing population and to promote education and continuing professional development [1, 2]. During this period society expanded its focus beyond the borders of the European Union, towards the whole European continent. The development and growth of the society and the broader orientation to other countries than those of the European Union led to the change of the name to European Geriatric Medicine Society (EuGMS) and to the inception of Global Europe Initiative group with members from Southern, Eastern Europe as well from neighboring countries [3].

Recent surveys conducted by the EuGMS showed the heterogeneity among the country-members in terms of recognition of geriatric medicine as an independent specialty or subspecialty and existing gap between steadily growing number of geriatric patients and the number of geriatricians. In this paper, we will focus on the current situation in countries that started developing and promoting geriatric medicine more recently compared to the majority of European countries.

Material and methods

In the frame of Global Europe Initiative group of the EuGMS, five countries where geriatric medicine is still emerging (i.e. Greece, Portugal, Russia, Turkey and Tunisia) were assessed concerning demographic characteristics, recognition of geriatric medicine as an independent specialty, training in geriatric medicine and availability of geriatric services in different care settings. One expert in geriatric medicine from each country (GS for Greece, SD for Portugal, YK for Russia, GB for Turkey, RG for Tunisia) provided an updated information. The aim of the present paper was to

highlight existing particularities in different countries (i.e. four European and one Maghreb country) where geriatric medicine is still emerging. We also used reference data from a web-based questionnaire answered by 26 countries among the 34 EuGMS countries-members. This questionnaire included issues on demographic characteristics of the countries, recognition of the geriatric medicine as an independent specialty and training in the context of geriatric medicine, the current number of geriatricians and geriatric beds, settings where geriatric medicine can be found.

Results

Population and geriatric service in the 5 studied countries with emerging geriatric medicine

Demography

The demographic data of the selected five countries where geriatric medicine is still emerging are shown in Table 1.

Population of older people increases rapidly in all countries especially of people aged 80 years and over. Between 2007 to 2018 in Greece percentage of people 80+ increased from 4.3 to 6.9% (+62.3%), in Portugal from 4.46 to 6.4% (+44.4%), in Russia from 3.0 to 3.7% (+23%), in Turkey from 1.2 to 1.7% (+41.7%). This clearly demonstrates the trend towards an increase in the number of older old people across all countries, even if the demographic profile is relatively younger and stresses out the pressure already inflicting health care systems.

Recognition of geriatrics

There are differences between these five countries in terms of recognizing geriatrics as an independent specialty. In Greece, it is not yet recognized as a specialty, a subspecialty or a competence. In Portugal, the competence of geriatrics was founded in 2014. In Russia geriatrics has been formally recognized as a specialty during the Soviet period, but the approach based on the generally accepted geriatric principles and assessments was introduced only by 2016. In Turkey geriatrics is recognized as a subspecialty of internal medicine since 1995, while in Tunisia it is a competence since 1995 (Table 2).

Geriatric training for physicians

The education in geriatrics varies across countries. In Greece and Portugal, there are sporadically optional courses in geriatrics at medical schools. Geriatric medicine is relatively unknown among undergraduate medical

Table 1 Demographic characteristics

Country	Total population Number	65 years and older		80 years and older		Number of physicians per 1000 population
		Number	%	Number	%	
Greece	10,741,165	2,340,162	21.8	740,871	6.9	6.1 [4]
Portugal	10,276,617	2,244,225	21.8	661,456	6.4	5 [4]
Russia	146,781,096	21,977,000	15.0	5,377,094	3.7	4.0 [4]
Turkey	82,003,882	7,186,204	8.8	1,454,525	1.8	1.9 [4]
Tunisia	11,007,326	863,450	7.8	212,190	1.9	1.29 [5]

(2018) National census data for all countries [4, 5]

students. In Russia, there is not the subject of geriatrics in the undergraduate curriculum whereas in Turkey it was introduced into the undergraduate curriculum in 1980. In Tunisia, medical students are trained in geriatric medicine since it is included in the undergraduate curriculum. In all countries, post-graduate diplomas in geriatrics or in the broader field (study of ageing) can be found. Development of under- and postgraduate curricula in geriatrics is a common challenge for all countries.

Geriatric service organization

Geriatric service organization is described in Table 3. Common problem is that even in the case of service availability dedicated to older people in primary care and hospitals, usually they are lacking participation of geriatricians and not applying geriatric principles. It is a common need to develop a long-term care system involving family, social medical and other health care professionals trained in geriatrics.

National geriatric societies

Despite the fact that geriatrics is not officially recognized in Greece, there are at least six different societies that are active in the field of geriatrics, ageing and gerontology. To strengthen and join scattered actions and forces, an initiative driven by a greater cause, namely to organize the 2020

EuGMS Congress in Greece, which because of the COVID-19 pandemic has been moved for 2021, gathered five societies, under the umbrella of Hellenic Consortium for geriatric medicine to prepare and host the aforementioned congress. To set the ground, several pre-congress meetings have been organized in different regions and with different thematic (physical exercise and diet in geriatric prevention, health care transfer and continuum of care, new technologies application in geriatric setting).

The Geriatric Study Group of the Portuguese Society of Internal Medicine (GERMI) represents Portugal in EuGMS. GERMI was founded in 2009. GERMI is engaged in increasing geriatrics education to all healthcare professionals through scientific meetings and courses.

The Russian Association of Gerontologists and Geriatricians was organized in 2013 RAGG joined EuGMS as an observer in 2017 and became a member in 2018. RAGG conducts annual Russian Congress on Gerontology and Geriatrics with international participation since 2015 and in 2019 the Congress was endorsed by EuGMS. The Congress targets all healthcare professionals and social workers. RAGG develops evidence-based clinical guidelines on the management of geriatrics syndromes and is very active in disseminating geriatric principles among other medical specialists through participation in position statements, consensus documents and development of national clinical practice guidelines in other fields.

Table 2 Geriatric training in five countries

Country	Is geriatrics included in the undergraduate curriculum?	Post-graduate training	Requirement to obtain specialization/competence in geriatrics
Greece	Optional modules in some medical schools	Yes	Not available
Portugal	In some medical schools	Yes	Post graduated curriculum to get the geriatrics competence includes 50 ECTS theoretical education + 300 h practical training
Russia	No	Yes	Two years residency immediately after graduation from a medical school or 4 months training for physicians who have their first specialization in therapy, general practice or pediatrics
Turkey	Yes	Yes	Three years fellowship education after 4 years of internal medicine residency
Tunisia	Yes	Yes	Three years of competency-based curriculum and training

Table 3 Geriatric services available in countries with emerging geriatric medicine

A. Outpatient setting	
Greece	Hospital-based outpatient assessment by a multidisciplinary team (dietitian, physical therapist, social worker and other) was recently initiated in a private hospital. Outpatient clinic for consultation in only one public hospital Geriatric consultations by a few medical doctors trained in geriatric medicine (not certified as geriatricians) provided in their private practice
Portugal	Geriatric outpatient consultations in private outpatient clinics Hospital-based outpatient consultations Some primary care centers provide services dedicated to older persons, but usually lacking participation of geriatricians and/or not applying geriatrics principles
Russia	Screening for frailty is performed by a primary care physician Geriatric assessment including CGA if needed is provided by a multidisciplinary geriatric team to patients in whom frailty is suspected
Turkey	Care for older adults provided by the family physicians or internal medicine specialists, but generally they do not perform geriatric assessment as a standard. Specific geriatric evaluation is performed in the centers where there are already geriatricians Older adults can apply to the geriatrics outpatient service in the centers having a geriatrician
Tunisia	Hospital-based outpatient geriatric units
B. Inpatient setting	
Greece	Not available
Portugal	Geriatrics is found in three orthogeriatric units and one acute geriatric unit. Some hospitals provide services dedicated to older persons, but usually lacking participation of geriatricians and/or not applying geriatrics principles
Russia	Geriatric departments in multidisciplinary hospitals Regional geriatric centers
Turkey	In acute care hospitals, geriatric evaluation is provided by internal medicine specialists. However, these internal medicine specialists have limited education on older adult-specific evaluation i.e. comprehensive geriatric assessment. There are specific inpatient geriatrics educational units in seven cities and simple inpatient units in about ten other cities
Tunisia	Geriatric units in departments of internal medicine
C. Nursing homes	
Greece	Private NHs and NHs directed by the church or by non-profitable organizations or charities. Medical coverage mandatory, provided by physicians not trained in geriatric care
Portugal	NHs are mainly private and very expensive; few public NHs NHs are required to have a doctor, but neither 24 h per day nor requiring geriatrics training
Russia	State and private NHs: both types of NHs provide medical service and have a NH-based physician usually without geriatric training for a daytime
Turkey	State NHs have medical service. Private NHs, medical service including follow-up by a physician is provided according to the patient status
Tunisia	Public NHs. Private NHs. Both types of NHs provide medical service
D. Home care	
Greece	Traditionally very strong role of family. Mainly informal care provided by family and/or personnel namely immigrant women without any specific training. Community-based resources across the country but limited to the extremely poor older persons without solid family support mainly for delivery of meals, help in hygiene and home care and social support
Portugal	Several social services (funded by the country or private) are available for delivery of meals, help in hygiene and home care, but they are not homogeneous across the country and usually helpers/staff are not trained enough to deal with older persons
Russia	Provided by family and/or untrained personnel. Long-term care system involving family, social and medical professionals trained in geriatric medicine is being developed
Turkey	Traditionally very strong role of family, much informal care is provided by the family members and in some families by attendants who are in general immigrant women. Formal care provided by family physicians and nurses. Services are planned by patient's phone request. Covered by social security institution. In addition, some local municipalities provide a helper to the older adults who has no family member or attendant helper but needs assistance
Tunisia	Provided by a family as well as by private medical facilities, and social emergency facilities. Traditionally very strong role of family, surrogate families of older people are encouraged by the government

In Turkey Academic Geriatrics Association (AGA) was founded in 2005 and now almost all geriatric centres and geriatrics specialists are members of AGA. AGA's activities include national and international geriatrics congresses, several projects devoted to nursing homes, development of home care model and team training for geriatric patients. AGA also fulfils its responsibility in making publications such as bulletins and handbooks for the awareness of the health workers as well as the public. European Journal of Geriatrics and Gerontology is published three times a year by the AGA.

The Tunisian Association of Gerontology (ATUGER) was created in 2002 and is very active in the field of gerontology, geriatrics and ageing with practical training, seminars and meetings. ATUGER often collaborates with other institutions and is also recognized as a full member in the International Association of Gerontology and Geriatrics (IAGG) representing Tunisia.

In all countries, there are as well other associations and societies which are active in several fields of geriatric medicine and ageing.

Table 4 shows the demographic data of the five selected countries with developed and recognized geriatric medicine. Accordingly, there is a great variance in the number of physicians, of geriatricians, of hospital beds. In all these countries, Geriatrics is a recognized specialty. (Data provided by EuGMS).

Geriatric service organization: The geriatric medicine can be found in a great variety of settings namely acute care, in outpatient care, in nursing homes and in post-acute care. Other settings mentioned where in psychiatric hospitals and palliative care.

National geriatric societies: The number of members in national societies of geriatrics varied from 30 (Iceland) to 4000 (Spain and UK). Many societies included other professionals (internal medicine, general practitioners being the most common) and nurses, occupational therapists and physiotherapists. All national societies had at least one meeting a year for promoting education in geriatric medicine and geriatric research.

Discussion

Among medical specialties, geriatric medicine is unique because it is so dependent on surrounding social- and medical-structures. Moreover, to create holistic solutions to address the complex needs of older people, multi-professional teams are needed. Health service provision is a complex process that integrates health care system inputs (manpower and technologies, drugs, recurrent expenditures) organizational structures and processes, the quality and the quantity of personal and non-personal health services in relation to health care of the population [6]. The goal of health services is to improve health outcomes, to cover expectations of people and reduce inequalities.

We present here the similarities and the differences between five different countries where geriatric medicine is still emerging. These are countries with different demographic profiles, with the different burden from aged population, situated in different geographical regions, but still in need to develop geriatric medicine to provide better health care to their older people. For instance, Greece and Portugal, both EU countries, have similar population size and have a similar demographic profile (21.8% in both countries > 65 years old 6.9% and 6.4% > 80). Russia's demographic profile is between the profile of the EU countries and of the countries with more dynamic demography as Turkey and Tunisia where the burden of population > 65 and > 80 is similar (8.8%, and 7.8% 1.9% and 1.8% respectively) but they have different population size. A great variety can also be observed between five European countries that have long recognized geriatrics with different population size. Older people represent a significant percentage in all of them from 13.7% in Denmark to 18% in Italy, not that big as the case of Greece and Portugal and smaller than that of Turkey and Tunisia.

According to the estimations based on the American Geriatrics Society's calculations [7] number of geriatricians needed estimated for Greece and Portugal is about 1000 while we cannot calculate number of existing geriatricians, since there are no official data available. Russia

Table 4 The results obtained in the five European countries with established and recognized geriatric medicine

Country	Total population (in millions)	Percentage 65–84 years (%)	Recognized as specialty Yes/no	Physicians per 1000 people [4]	Geriatricians/one million people
Belgium	11.38	14.9	Yes	3.1	28.5
Denmark	5.80	13.7	Yes	4.0	15.7
France	67.00	14.3	Yes	3.2	37.3
Italy	60.48	18.0	Yes	4.0	49.6
Spain	46.56	15.0	Yes	3.9	23.9

Data from [4]

and Turkey have as well a deep gap between the existing number of geriatricians and the required number to meet the needs of geriatric care. In Russia, number of full-time geriatricians was 322 by the end of 2018 and approximately the same number of physicians worked as part-time geriatricians additionally to their first specialization. According to the same estimations [7] estimated needed number of full-time geriatricians is around 9400. There are 57 licensed geriatricians and 48 additional trainees in geriatrics in Turkey currently. Estimated number of geriatricians needed is 3100. In Tunisia with an estimated needed number of geriatricians of 370 doctors there are 270 geriatricians, while some other medical doctors have been trained in geriatrics (all estimations calculated from the American geriatrics society's estimate that about 30% of the 65-plus patient population will need a geriatrician and that one geriatrician can care for 700 patient) [7].

As previously demonstrated pre- and postgraduate training in geriatrics differ between countries and even within the same country, and this heterogeneity may explain the delay in the development of geriatric medicine [8]. Training duration also can be different, even the content of training varies. This is also demonstrated in the present report. We observe that in all countries, there are available post-graduate courses, but in the frame of the undergraduate curriculum, geriatric training is not represented in all cases. The lack of undergraduate training puts obstacles in postgraduate training since there are gaps that must be filled during it. Specialization and/or competence in geriatrics is not available in all countries and requirements are different across countries. It is true that geriatric training does not concern exclusively medical doctors. As aforementioned geriatric medicine is based in multi professional approach of older people.

One weakness of this paper is that it does not include information concerning under-graduate or postgraduate training in geriatrics of other healthcare professionals that provide much in geriatric care. This was done only because we aimed to focus on describing the situation in geriatric medicine and decrease the level of complexity.

A recent systematic comparison of the resources for care-dependent older people in several European countries demonstrated that though the core political vision on community care consists more or less of the same components (integrated care, longer stay at home, high quality of care) there are still differences namely in the promotion of formal or informal care [9]. In the same study, it is clearly demonstrated that governmental expenditures, funding of community health services, regulatory issues and care provision are unique characteristics of every country. These variations render community care solutions country-specific and policy makers have to take into account local and national care contexts.

Even when similar services are available across different countries utilization is related to existing care and support system and is country-specific [10]. Informal care provision demonstrates different patterns across countries. Prevalence varies from 20 to 44% and is affected by family care norms [11]. This diversity exists not only in the available supportive solutions but in other fields of geriatric medicine as in the case of integrated care programs for older where many different CGA instruments are used and this is proposedly driven by the need to have context or population-specific procedures that suit best screening, assessment and management purposes of each specific program [12]. We can easily distinguish the variety, the accessibility and the particularities of the available services that can be used to provide care designated for older people across countries.

A comprehensive and analytical European template for the undergraduate training in geriatric medicine is currently available [13] and another European template for the development of a postgraduate curriculum in geriatric medicine is in our hands [14]. These two tools are important for geriatric training across Europe and broader region. Now even countries with no previous geriatric medicine training have the frame to organize under-graduate and post-graduate training in geriatrics. In the same direction, it can be useful, in the frame of EuGMS, to propose a minimum set of requirements to organize geriatric medicine units in different settings, namely outpatient, inpatient, specialized geriatric units (orthogeriatrics, oncogeriatrics, etc.) for countries that have no previous experience in geriatric medicine.

A common approach could aim in the provision of the principles of geriatrics and gerontology in the undergraduate curriculum and structured post-graduate curriculum. At the same time, there should be specific concern to develop venues for the provision of comprehensive geriatric assessment in both hospital and community setting. Demographic shift is in the same direction for all countries and specialized geriatric care is a necessity. Deficiencies and particularities of each country that wants to develop geriatric medicine have to be taken into account.

EuGMS can play a pivotal role in fostering geriatric medicine in several countries if asked to assist local partners. EuGMS can connect policy and practice and with that scope, it has recently organized the group named Global Europe Initiative that aims to reinforce the EuGMS actions in spreading the educational activities and high professional standards across European continent and in particular in the countries where geriatric medicine is still emerging or has yet to obtain well-established professional and scientific independence and recognition working in three axes (a) mapping geriatric medicine throughout the European region, (b) facilitate the participation in the annual congress of the EuGMS, (c) promote joint actions [3].

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Compliance with ethical standards

Conflict of interest On behalf of all authors, the corresponding author states that there is no conflict of interest.

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