

Past, present and future of cultural diversity of physicians in hospital emergency departments

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Introduction

The incorporation of overseas physicians to the job market has had an important impact on the current complexity of healthcare organisation in Spain as it helps to solve some deficiencies in the system while also enriching it because they are healthcare professionals. It is therefore necessary to describe the foreign physician phenomenon in order to understand the impact of this incorporation. To do this, a brief historical description of the evolution of this group in Spain up to now is first required. Secondly, some parameters that explain the current situation of lack of physicians should be analysed. Finally, it is necessary to have an approach to reality, which will be done mainly by basing our observations on the physicians working in hospital emergency departments (HEDs) in Catalonia.

Therefore, a first approach is to review the studies published on physicians as a group in Spain and Catalonia, with special emphasis on the migratory movements of professionals¹⁻³ as well as elaborate a database of foreign physicians working in Catalonia during the first three months of 2006. These data were presented at the 18th Annual Conference of the Spanish Society of Emergency Medicine⁴ and were obtained from the official medical councils of the Catalan provinces (Barcelona, Girona, Tarragona y Lleida), in a questionnaire given to heads of departments/coordinators of the 21 HEDs in Catalonia and from telephone interviews carried out with a part of the overseas physicians that work in these HEDs.

The past: historical, demographical and scientific background

The arrival of foreign physicians to Catalonia is a phenomenon that dates from the 18th century. At the end of that century there was a boost in the economy and a general interest in cultural matters in Catalonia. In 1796, the war against the French Convention started with a new break down in the relations with England, the dominant power at that time. This led to a halt in the commerce with America, a fall in the industrial sector and a rise in unemployment. All of this entailed the onset of poverty, with hordes of beggars in the streets of Barcelona. The charity board Junta de Caridad was created with the aim of attenuating this situation with the collection of donations for what was known as the "public pots"^{5,6}. The crisis was also noticeable in rural areas, due mainly to a fall in the price of wine. In 1801, peace was made but the state of war with England was resumed three years later.

The population in Catalonia was close to 900,000 inhabitants in 1787, and rose to 1,652,000 in the 1857 population census with a birth rate of 31/1000. Therefore, if the Catalanian population in 1787 was 7.8 % of the Spanish population, this rate rose to 10.7 % in 1857. At the beginning of the 19th century, the city of Barcelona had about 115,000 inhabitants, a population which rose after a previous decrease of 100,000 inhabitants in 1826 to a total of 215,900 inhabitants in 1857⁶.

During the first half of the 19th century, three periods can be distinguished in terms of development and expansion of medical science. The first

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period was from 1800 to 1808, in which the ideas and methods of 18th century Enlightenment were spread. The incorporation of renowned foreign physicians to Spanish society and the return of Spanish physicians who had been trained in Europe was decisive to establish the foundations of medical science during the Enlightenment. The surgeons Pere Virgili and Antoni de Gimbernat, and the internist and hygienist Ruíz de Luzurriaga⁷ were of note among these professionals. Translations followed the general rhythm of medical publications and increased remarkably during the lustrum prior to the War of Independence and translations of the French school were very important at the beginning of the century, with books on the transition to anatomic-clinical thought being among the most important.

The second period is from 1808 to 1833 comprehending the years of the War of Independence and the reign of Ferdinand VII. These years constitute a catastrophic period that put an end to the creativity of the Enlightenment. This downfall took place, firstly, due to the destruction of scientific institutions as a consequence of the war. But the real cause was deeper with the breakdown of the innovative spirit of the Enlightenment that led to the adoption of two main attitudes: that of those who considered all efforts of renovation and Europeanisation of the 18th century (keeping their political and social status) to be a serious mistake, and that of those who continued to think that the efforts of Enlightenment should be maintained. The liberal attitude converted into one of the ideological extremes of more than half a century of contemporary history while also differing from the innovative spirit of the Enlightenment in the constant politicisation of all the problems of public life. The vast majority of Spanish physicians had stood on the liberal side since the war years and with the arrival of Ferdinand VII were persecuted for their political ideas and had to go into exile. At the beginning of the subsequent reaction to the liberal triennium (1824), the Government even jailed or dismissed all professors from the Royal School of Medicine and Surgery in Madrid from their chairs. The consequences of the liberalism of the physicians not only affected renowned scientific figures or successful professionals. The absolutist government tried to solve the problem of lack of physicians with the creation of "blood-letting surgeons" for small towns and, overall, with the assimilation of surgeons to the functions of physicians with the famous meeting of the faculties in 1827. As a reaction to this liberal ideology of physicians as a group, the absolutist govern-

ment systematically distrusted medical knowledge as they had similarly done with scientific knowledge. The protagonists of this period are, together with the survivors of the Enlightenment, the members of two new generations: that of 1775 and 1790, whose situations were very different. Those in the 1775 group were in their thirties at the beginning of the war and had been trained at institutions of the Enlightenment, but when they were to commence their work, disaster struck. Those in the 1790 group were teenagers and saw how their academic training and professional future was truncated⁶.

The third period is from 1833 to 1868, with the revival of Spanish medicine, but it is dissociated from Spanish society. Between 1834 and 1868 nearly 200 medical journals appeared in Spain although only about twenty achieved a certain degree of continuity. The medical curricula directly inspired by Pere Mata in 1843 and that of the university in November 1845, imposed total state centralisation not only in matters referring to the faculty (curriculum, diplomas, etc.) but also in the issues related to the importance of the different medical schools and the recommended texts for teaching^{8,9}. The creation of a "Central University" was the most visible symbol of the desire to do *tabula rasa* in relation to the actual relevance of the different university institutions and their tradition. At this stage, communication in Europe had logically improved. Foreigners and exiles provided the knowledge and experience acquired, translations increased dramatically, foreign books circulated in higher numbers and the medical press played a particularly decisive role in providing continuous, up-to-date information. At this time, France was the country which had the most absolute influence on Spanish medicine.

The present: approximation to the real number of medical professionals

In Spain, there is not a human resources information system of the national health service. We do not even have basic information such as the number of workers in each professional category by gender, age and specialty. The different sources of information on healthcare human resources provide contradictory and insufficient data. In order to know the number of working or unemployed professionals, information provided by professional councils, ministerial registers of Education and Health, scientific societies and official statistics must be used.

In the 20th century, during the 1970s and the first years of the 1980s, there was a massive influx of students to medical schools: among the 160,000 physicians in active service, 76,827 graduated in the period from 1970 to 1983. These circumstances led to the idea that there was an important surplus of physicians. Of the 30,000 students enrolled in the 1950s only 1000 graduated every year, that is to say, more than 95% quit. There is a great distance between the students enrolled in medical schools in Spain between 1964 and 1993 and those that graduated six years later, reflecting the high rate of failure and abandonment before the introduction of *numerus clausus* in the 1978-79 academic year. These relevant differences between enrolled undergraduate students and those having graduated can be explained in part by the migratory movement that took place in Spain between 1977 and 1982, due to the validation agreements with the studies in Latin America and Europe. Nowadays, the abandonment rate is of approximately 12% and the average length of the studies of 6.3 years. After the introduction of the *numerus clausus*³, the evolution of students registered and those who graduate from Spanish medical schools tended to stabilise at about 4000-5000 new graduates every year.

The number of physicians to be trained and their distribution by specialties depends on political decisions that have repercussions in the long term. The age pyramids of Spanish physicians respond to the policies of the past. The current policies will determine the resources of the future. Therefore, each placement for a medical student at present will generate a work position during the next forty years.

The emergence of new physicians in 1970s and the first years of the 1980s in Spain led to the peculiar age pyramid at present. The rejuvenation of the medical population during the last decades has contributed to the reduction in professional mortality and to an increase in unemployment. In 1974, the percentage of physicians under 30 years of age was of 19.9%, being 42% in 1985. In 1996, the average age of the 171,000 physicians in the professional register in Spain was 41 and the largest group consisted of 39-year-old physicians (8,917). The age distribution shows a large concentration of physicians (35.5%) of between 36 and 43 which will condition the offer of physicians in Spain during the next decades and will concentrate many retirements within a few years (in 20-30 years). Only 8% is 60 or over and another 10.5% is 50 to 59, while to the opposite extreme, half of the physicians are not yet 40^{2,3}.

Table 1. Places of origin of foreign medical professionals registered in Catalonia (March 2006) and the respective provinces of registration

	Barcelona	Tarragona	Girona	Lleida
Europe	421	55	27	15
South America	1.863	201	41	62
North America	33	0	0	0
Africa	84	16	0	0
Asia	25	4	6	1
Australia	1	0	0	0
Other	0	0	38	0

From the data obtained through the official College of Physicians⁴, particularly in Catalonia in recent years (until March 2006), among the 32,822 physicians registered, a total number of 3,153 foreign physicians have joined the professional register (9.6%, Table 1). Analysing the questionnaires given to the heads of the HEDs of 21 hospitals in the Catalonian autonomous region⁴, it can be observed that the profile of the foreign physician is that of a 40-year-old male, normally originally from South America (69%) and with a degree in general medicine. Among these professionals, 18% work in HEDs. They came to Catalonia because of the job offers (information provided by other colleagues) and, in general, they do not have formal training in emergency medicine, but do have some years of experience working in healthcare in their countries of origin. Their main objective is usually to acquire a specialty via the MIR exam.

Future: a few comments

Every migratory movement responds to some degree, to two forces: an expelling force (push) and an attracting force (pull). International mobility of healthcare professionals, first in the Europe of the 15 member countries and now in the Europe of the 25 members, is a phenomenon of growing importance that constitutes both a problem and a solution in which Spain takes part. Many doctors and nurses leave for Europe from Spain and Spain also provides employment for many foreign doctors, especially from Latin America. Since the beginning of the 1970s, when there were more medicine students than doctors in Spain, many changes have taken place, but we have not been capable of handling the imbalance between offer and demand successfully¹. The imbalance is obvious: doctors' unemployment, deficit and excess of professionals depending on specialties, problems of intergenerational equity,

and remarkable inequalities among regions. Comparing resources (offer) and needs (demand) in a dynamic context constitutes a difficult objective for planning. It must be ensured that size, composition and distribution of staff caters for the current needs and is adjusted to changes that will certainly or probably happen in the future. The approaches based on need, on demand or on benchmarking have their advantages and disadvantages and the planning of healthcare professionals is problematic and complex in every country.

In Spain, there are no agreed standards on the adequate rates of physicians that are required. The capacity of the system to provide with jobs in the right number and rhythm has not been assessed. There are risks of selective deficit that are exacerbated by predictable demographic reasons (physicians become older, more women join the profession), by the increase in the length of mandatory training in some specialties and by other factors that could have hardly been predicted or prevented one decade ago and that escape the control of the planner: application of European work directives, a high increase in private demand, capacity of attraction of European markets, working conditions, accreditation and precarious contracts.

Healthcare professionals in the public system are structured in a work hierarchy of the "caste" type. The permanent statutory staff, with rights recognised by national laws, occupy the top end of the system. These professionals are followed by those who are temporarily appointed, those with "long-term" replacement contracts and finally those with renewable temporary contracts who sign hundreds of thousands of contracts every year. These jobs are very precarious (contracts for a few days) in which many unemployed Spanish physicians are not interested, as they prefer other alternatives such as preparing for the MIR exam

to train as a specialist or to "climb" to a more in-demand specialty. The capacity of attraction of other countries, particularly of the United Kingdom but also of France and Portugal, with more attractive salary offers and working conditions, constitutes the last factor exacerbating the deficit.

In this state of affairs, the approval of the future Emergency Medicine specialty will help to provide HEDs in Spain with structure and stability and a curriculum that is essential.

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