

Internal Medicine in the curriculum of General Medicine at Universities of Mexico, 2014

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Abstract

The aim of this study was to analyze Internal Medicine as a subject and its requirement in each of the Universities curriculum in Mexico that offers a degree in General Medicine. By the end of the first quarter of 2014, the research was closed and 81 campuses were studied. This research was quantitative, using an analytical technique, written discourse, exploratory and purposive sampling not random and homogeneous type. The Likert questionnaire was used in this study to analyse the following variables: the record of Internal Medicine as a subject, the burden of credit, and the location of the program. The procedure consisted of three phases. First obtaining an official list of all the Universities in the Mexican Association of Colleges and Schools of Medicine. Second, obtaining an analysis of each of the Universities' curriculums, and lastly gathering each variable of the study. The results of the Universities were 63% were public and 37% private. Internal Medicine as a subject in the curriculum was 37.1%, and 20% of the universities include it for six months and 9% offer it the whole year. However, the undergraduate internship in Internal Medicine offers it 100%. In conclusion, Internal Medicine as a subject could disappear from the curriculum in General Medicine before coming to the undergraduate internship, even though the latter is declared required in hospital shifts.

KEY WORDS: Internal medicine. Curriculum. General medicine. Universities. Mexico.

Introduction

Internal Medicine has more than 120 years of having been developed in Germany (Wiesbaden, 1880)¹, where the Internal Medicine denomination was chosen, with the promotion of great illustrious physicians, including Sir William Osler², who practiced and taught comprehensive clinical medicine and is regarded as the father of Internal Medicine, as well as a great promoter of clinical medicine in the USA. The birth of Internal Medicine was conceived by the needs of that epoch, through a new science that managed to embrace the knowledge on physiology, bacteriology and pathology and obtain, by means of clinical reasoning, the solution to health problems

and, at the same time, with this new science differentiating from external or surgical practices, founded on the mechanisms of disease and on diagnostic and therapeutic scientific bases³. Throughout the years, the knowledge on internal medicine practice progressively evolved, as well as concepts did⁴. In Mexico, the Colegio de Medicina Interna AC considers that an internist doctor is a specialist in the care of adult patients, from puberty to old age, with comprehensive, non-fractioned care, expert in establishing a diagnosis, since without it there will not be adequate treatment and prognosis. He/she is trained for the care of the adult patient with multiple diseases, providing care to the patient both at the office and the hospital⁵. However, over the past 20 years, the topic of the future of Internal Medicine has been of

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reiterated and growing concern, since the danger and the fear that, in a not excessively long-term, this specialty will be completely divided into multiple specialties and therefore lose its necessary unifying integration has been repeatedly pointed out⁶. Some authors think that one of the conflicting aspects with this specialty is that, ever since it was denominated “Internal Medicine” (in contrast with other specialties that clearly explain their function), the term causes confusion because it doesn’t have a descriptive or etymologically understandable connotation⁷. Other authors comment that the problem of internal medicine is not hers, but ours; however, in Mexico it is absolute guarantee of good praxis for the population, since it implies from taking undergraduate courses, a rotation in the undergraduate internship and a 4-year specialty to certification or re-certification by the Mexican Council of Internal Medicine².

Therefore, internal medicine teaching is a fundamental and indispensable element both in undergraduate and post-degree teaching of the professional physician. However, authors like Duclos⁸ drive us to reflect on the following: what have we done to prevent Internal Medicine fragmentation? It is for this reason that we carried out this investigation with two purposes: first, to find out the real situation of Internal Medicine as a subject in the curricula of different universities, both public and private, that offer the medical degree program in Mexico and which are the states that offer the family medicine degree program and how many are in the AMFEM official list⁹; second, to find out in which universities is internal medicine formally taught as a subject, on which semesters is it offered and whether it has credit value, since this will ensure for students to distinguish its importance and value its impact on the future of their profession.

Materials and Methods

The research was based on the program of courses of the curriculum for the Medical Surgeon or General Medicine Degree offered by Mexican universities registered at AMFEM up to the first two-month period of 2014. This was a quantitative research, using the written discourse analytical technique, exploratory in nature, using a deliberate, non-randomized and homogeneous sampling of each one of the curricula of the medical surgeon degree programs. Research instrument: a Likert-type analytical questionnaire was used, where the “registry of the Internal Medicine

subject”, “credit value” and “location within the curriculum” variables were assessed. Data collection procedure: for the purposes of this study, three phases were used. The first phase involved obtaining a list of all possible schools and faculties offering the General Medicine or Medical Surgeon degree that are registered in Mexico, by means of information possessed by the two only official organizations in Mexico, namely, AMFEM and the Mexican Council for Medical Education Accreditation. Subsequently, the decision was made to use one of both official lists, taking into account the one that managed to contain the highest number of universities, with the purpose to avoid bias with regard to the number of schools and thereby obtaining a number closer to reality. The second phase consisted in analyzing each one of the offered curricula, by subdividing into three elements to acquire the information: 1) by electronic means the Higher Education Institution has, for example, main website; 2) by means of telephone call; and 3) by requesting official information by means of leaflets or brochures containing all the information of the requested curriculum. The third phase of the research involved using the research instrument and capturing each study variable, by means of which, information about the Internal Medicine subject and universities in Mexico was obtained.

Results

All AMFEM-affiliated universities that offer the General Medicine or Medical Surgeon degree in the Mexican Republic States were analyzed until February 2014, which is when the present investigation was closed. The information was processed by means of the statistical program Pasw Statistics version 18 (SPSS).

Mexico is divided in 31 Federative States and one Federal District (DF). With regard to the General Medicine or Medical Surgeon degree educational offer, there are 10 states that have more than 1:1, as in the case of the DF, which has as many as 13 universities, and other states have up to seven universities with the same General Medicine degree offer (Fig. 1). In addition, of all available universities, 63% are public and 37% depend on the private sector (Table 1). With regard to Internal Medicine as a course or subject in the curriculum of each university, we found that 67.9% does not include it and 32.1% does have the subject (Table 2). At universities where Internal Medicine is offered by semester,

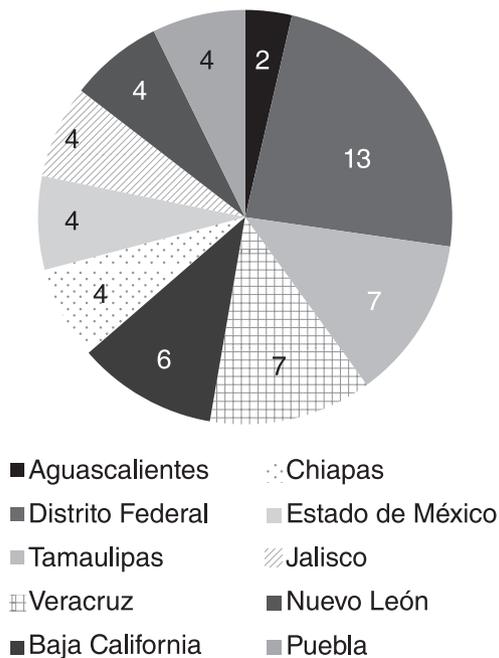


Figure 1. List of states and universities with higher numbers of General Medicine degree programs in Mexico, 2014.

the place in time is rather variable, since it is imparted as early as the 4th semester and as late as the 11th semester (Fig. 2), with Pearson's correlation yielding a subject/credit constant of 0.906 as a course and 0.014 in credits (Table 3). At undergraduate internship, rotation through the Internal

Medicine department is 100%, with credit value (Table 4).

Discussion

In this research, we found that, in Mexico, the universities/state ratio is disassociated, since at the DF there are as many as 13 universities, other states have seven and others have only four campuses. This might allow for medical education to concentrate in certain places. There is a larger number of public schools, but the percentage happens to be very close to that of private schools, and this may also be significant for the student population; for example, there may be some kind of training or teaching inequality, since private schools may have updated or sophisticated virtual simulation equipments or access to educational technology, promoted by the private university itself as a marketing factor to future students, whereas in the case of public schools these resources are available but with restrictions.

Two issues are concerning and have to be paid attention to. First, that internal medicine as a subject might disappear sometime in the next decades and thereby leave the future general physician deprived of a comprehensive medical education, since the proportion of universities where it is available as a course is 32.1%, perhaps displaced or absorbed by some course that tries to replace it, such as notions of pathophysiology or introduction to clinic, but the associated interdisciplinary or multidisciplinary management Internal

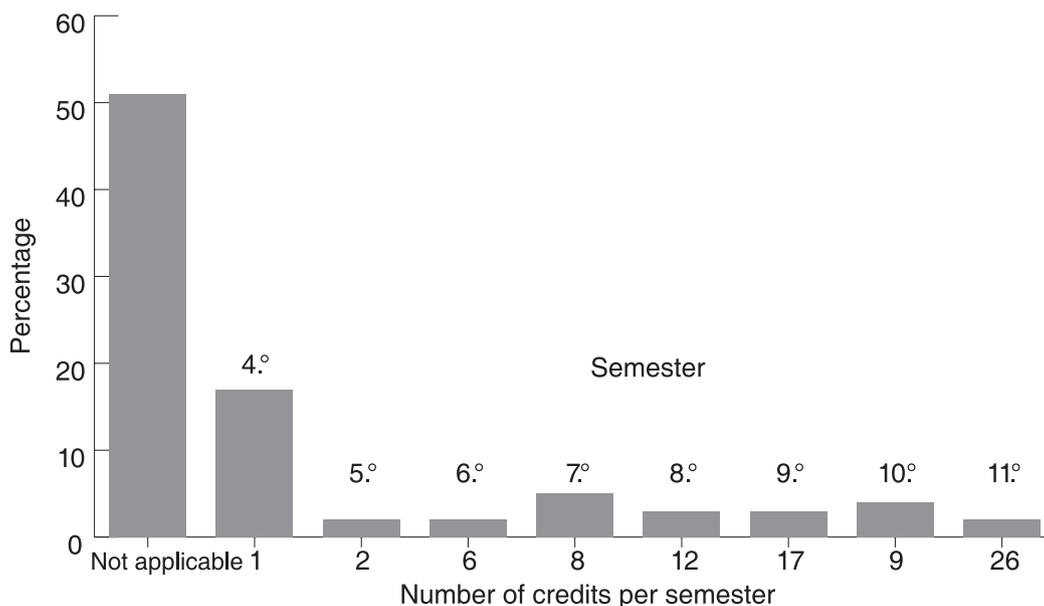


Figure 2. Proportion of the number of credits per semester of the Internal Medicine subject.

Table 1. List of universities with General Medicine degree program in Mexico, 2014

| | | Value | Schools | Percentage |
|---------------------|----------|---------|---------|------------|
| Standard attributes | Location | 2 | | |
| | Label | <none> | | |
| | Type | Numeric | | |
| | Form | F5.2 | | |
| | Measure | Ordinal | | |
| | Role | Both | | |
| Valid values | 1.00 | Public | 51 | 63.0% |
| | 2.00 | Private | 30 | 37.0% |

Table 2. The subject of General Medicine in the curriculum of universities in Mexico

| Academic offer | Frequency | Percentage | Valid percentage | Cumulative percentage |
|----------------|-----------|------------|------------------|-----------------------|
| Has not | 55 | 67.9 | 67.9 | 67.9 |
| Has | 26 | 32.1 | 32.1 | 100.0 |
| Total | 81 | 100.0 | 100.0 | |

Table 3. Pearson's subject/credits correlation

| | | Subject | Credits |
|-------------------|-----------------------|---------|---------|
| Subjects | Pearson's correlation | 1 | 0.014 |
| | Sig. (two-tailed) | 81 | 0.906 |
| | N | | 78 |
| Credits (grouped) | Pearson's correlation | 0.014 | 1 |
| | Sig. (two-tailed) | 0.906 | |

Table 4. Internal Medicine in undergraduate internship

| Academic offer | | Frequency | Percentage | Valid percentage | Cumulative percentage |
|----------------|-------|-----------|------------|------------------|-----------------------|
| Valid | No | 5 | 6.2 | 6.2 | 6.2 |
| | Yes | 76 | 93.8 | 93.8 | 100.0 |
| | Total | 81 | 100.0 | 100.0 | |

Medicine has as a subject would be lost. Second, in those universities where it is offered as a course, it is scheduled as early as the curriculum 4th semester, which makes it likely for the student to lack the necessary knowledge to assimilate the teaching or clinical practice rotations through the hospital. For the moment, it is important noting that in the curricula where it is offered it does have credit value; i.e., it is given a specific weight and importance in the curricular training for the doctor. It should also be highlighted that, in 100% of Mexican universities, Internal Medicine is contemplated at undergraduate rotating internship and also has credits in the curriculum.

In view of the above findings of this investigation, we propose to those responsible to update curricula or study programs at each university to preserve Internal Medicine in the training of the future health professional, since the contribution it makes is preponderant and essential to the management of health problems of society in general.

To stop considering Internal Medicine in the general physician college training is taking away knowledge itself as a subject and probably as a specialty, which entails depriving the students of the possibility to distinguish its importance and its impact on the future of their profession.

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