

System to outline the graduate students

Sistema de mapeamento dos egressos

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A B S T R A C T

Objective: to evaluate the system to outline the graduate students from the Post-Graduate Programs of CAPES Medicine III area. **Method:** it was analyzed the book of indicators and the Document of Area of the Post-Graduate Programs of Surgery, also checking the literature about this issue. **Results:** there was a paucity of data from most of the programs, as regards to the methods for evaluation of graduate students. The current system lacks a standard and an institutional support to outline the graduate students. In the public system there is a concentration of postgraduate students in Medicine; however, they represent a small part of those Brazilians students who finished their graduation courses in Medicine. In the current context, the quest for the post graduate courses and consequently for a research field or even a teaching career, has been replaced by the private sector jobs and the labor market, both in non-academic assistance activities. **Conclusion:** it is imperative to establish not only science and technology innovation policies but also educational and health policies acting harmoniously and stimulating the qualification and the teaching career, improving the post-graduate courses. It is necessary to develop a single form under the institutional guidance of CAPES with the conception of a National Program for Graduate Student in order to consolidate guidelines to mapping the graduate students of post-graduate programs in surgery, in our country.

Key words: Education, Graduate. Educational Measurement. Health Sciences. Students.

INTRODUCTION

In the Brazilian educational system it is necessary to evaluate the profile of student egress of postgraduate programs. It must be know and validate the teaching-learning process considering, primarily, that the impact on teacher and researcher training. The public university is the main responsible for the existing programs in the country and therefore we emphasize its primary commitment on excellence training and qualified teachers. However, in the egress profile must be analyzed the influences inherent to the labor market, although this is not the mister of public universities.

Then, to map the egresses is not limited to the mere accountability. Has the scope of legitimation of knowledge, sanctioned by official and institutional recognition (CAPES / MEC) and is essential to support policy decisions aimed at the quality of training in graduate school, according to the nations needs. It should be noted that the mapping of the egresses is inserted in the evaluation of Medicine III area programs and is one of the relevant indicators in Sucupira Platform, formerly existing in the CAPES Coleta System. This information is linked to the larger environment, the law that created the National System of Higher Education Evaluation (SINAES)¹.

Thus, in general, the objective of evaluation is: improve the quality of higher education; guide the expansion of its offer; increase in ongoing basis, institutional academic and social effectiveness; deepen commitments and social responsibilities of higher education institutions, through the enhancement of their public mission and promote democratic values, respect for differences and diversities, affirmation of autonomy and institutional identity¹. Understanding this mission means taking responsibility that must be shared by all actors committed to the educational goals for the post-graduate in Brazil.

METHODS

Was analyzed the evaluation form of the Medicine III Area Document looking for the inclusion of the term egress/alumni/graduates in several items/questions/indicators², namely:

Question: Proposal of the program

Item 1.2. Program planning with a view to his future development addressing international challenges of the area in the production of knowledge, its purpose in the best training of their students, their goals as the richest social integration of its egresses, as the area parameters.

1. Professor Titular, Coordenador do Programa de Pós-Graduação em Ciências Cirúrgicas e Chefe do Centro de Cirurgia Experimental do Departamento de Cirurgia da Faculdade de Medicina da UFRJ.

Question: Student body, theses and dissertations

Item 3.3. Quality of theses and dissertations and production of students-authorship graduate and undergraduate (for IES with a graduation in the area) in the scientific production of the program, as measured by publications and other relevant indicators to the area.

Definitions and comment on the Question/Item: is measured primarily by the full articles published by students and program graduates, related to theses and dissertations completed. Indicator 1 - Assess publications involving students or egresses authors (last three years) in the number of graduates (sum of products with student authored the three years/number of postgraduate students in the triennium): $G > 0.6$, $G = 0.40$ to 0.59 , $F = 0.2$ to 0.39 , $P = .10$ -.19, $D < 0.10$ ($G =$ Great, $G =$ Good, $F =$ Fair, $P =$ Poor).

Question: Intellectual production

Item 4.1. Publications of the program by qualified permanent teaching.

Definitions and comment on the Question/Item: takes into account the overall production of the program, ie, the total number of complete articles published in scientific journals by the set of permanent faculty, students and egresses. The quality of the publications parameter is the WebQualis Journal.

VI. Considerations and definitions to notes 6 and 7 - international insertion

1. Skill level, production and performance equivalent to international centers of excellence in human resource training, and the expression of scientific production of the student body.

In relation to the international context of the program, the following international production indicators of teachers will be computed: conducting post-doctoral training of egresses and teachers abroad, preferably with support from funding agencies.

2. Consolidation and national leadership program as a trainer of human resources for research and graduate education.

In this section, the performance of the program in the training of human resources and nucleation of new research groups in other states and regions of the country will be evaluated, and considered the current situation and the history of the program as a trainer of human resources, considering the integration of students and egresses in the research system and graduate.

Thus, in the analysis of expected interest focuses on the evaluation form, by CAPES Indicators Book and the guidelines issued by the MEC/INEP³, stand some priority parameters in the evaluation of the egresses of postgraduate Medicine III area programs¹⁻⁴: intellectual production (technical and quality of research output); social inclusion;

internationalization; training and qualification of the student body; and occupational performance.

RESULTS

In 2008, at the Second National Meeting of Post-Graduate Programs in Health Sciences in Águas de São Pedro, Brazil, Professor Nestor Schor, referencing Velloso⁵ presented egresses destination trained in post-graduate programs in the 90s. The vast majority of doctors (77%) was linked to universities and research institutes, whereas this percentage was reduced to approximately 40% compared to the masters.

The Post-Graduate Program in Surgical Sciences, Department of Surgery, Faculty of Medicine, Federal University of Rio de Janeiro (UFRJ) - the authorization for the operation of the masters and doctoral occurred respectively in the first and second half of 2009 - analyzed their data to the first half of 2014⁴. It was observed that both the teachers and doctors held high concentration of links with the public service (almost 90%), reserving small portion for exclusive private activity (Figure 1). Of that program, about 45% of the doctors exerted teaching activities in medical schools and all had at least a link to the public service.

It is observed that 87% of teachers and 88% of doctors had liaison to public institutions. Among doctors 44% had activities in university teaching, but with double bond (professor and doctor of public service, teaching or private institution and doctor of public service)

The Federal Council of Medicine, in a magnificent study published in 2004⁶, evaluated 8980 questionnaires answered by doctors of all states. It was found that 14% had a masters degree, 6.8% doctor's and 1.3% post-doctor's. The titles were obtained largely in public institutions, predominantly students in post-doc training overseas (about 60%). Almost 50% of masters students defended their dissertations within 24 months and about 60% of doctoral candidates did it in range between 25 and 48 months. There was dispersion among specialties, and in anyone the choice was greater than 10%. In the three levels (masters, doctoral and postdoctoral) preferences were for General Surgery/Digestive System, Urology and Gynecology/Obstetrics (Table 1).

DISCUSSION

The search for an effective evaluation system requires constant improvement and adjustment to changes in the contemporary world. Earlier this decade, the INEP³ already advocated that the evaluation process should be a system that allows the integration of the various dimensions of the evaluated reality, ensuring the conceptual coherence, epistemological and practices as

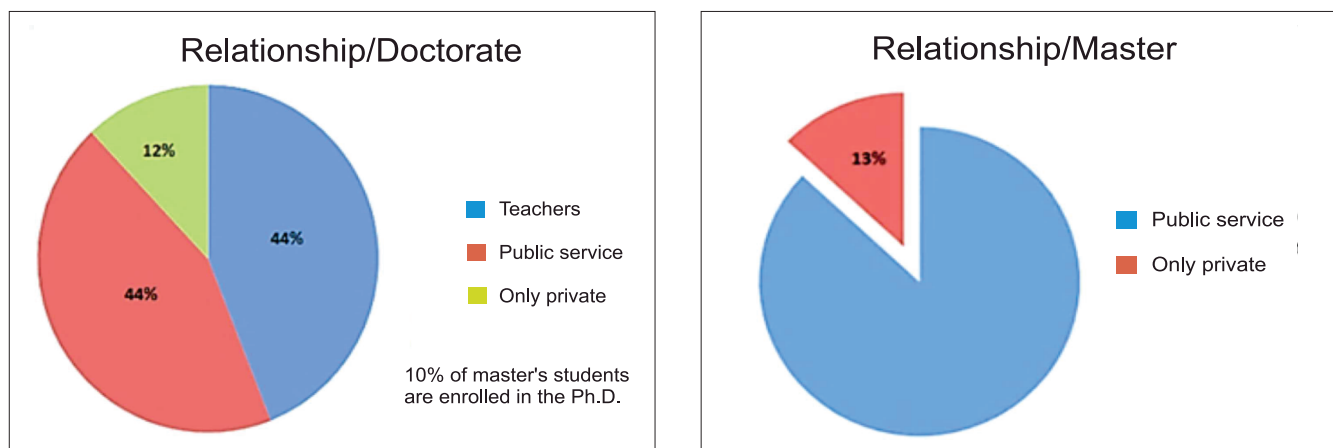


Figure 1 - Distribution of students of the Post-Graduate Program in Surgical Sciences, Federal University of Rio de Janeiro - UFRJ, Rio de Janeiro, RJ, Brazil.

well as achieving the objectives of the various instruments and modalities.

Some considerations are in order regarding the results. Most students who have committed themselves to the doctorate in stricto sensu graduate had teaching vocation. However, competitions for entry into university teaching in public universities are largely absent. Thus, there is migration of several of these graduates to private institutions whose activities are primarily care, where research is poorly developed or inexistent⁷.

It is noteworthy that, a doctoral student enrolled in a graduate program in the medical field usually has around 30 years or more, and has already taken consolidated employment contracts. The lack of policy on higher education to absorb the trained and polished values in public institutions undermines the intention of attending graduate school. In this obstacle add to the absence of incentives characterized by small change of scholarships,

the low pay in the public teaching career and/or browser activity.

In the analyzes of egresses of postgraduate programs is necessary to consider the large volume of medical students of about 250 medical schools in Brazil. Surprises the number of students finishing medical school more concerned with the financial return that comes from the labor market than with continuing education, essential to quality of their training. These results not only for survival issues, but for contingencies of this hot market, with many opportunities for job positions in non-academic assistance activities in the private or public sector, and have seductive remuneration.

It is attested paradigm shift in this third millennium, in which contracts for professional practice, usually in private institutions, have been signed with new graduates without residency. They are not worried about learning new skills that enable them to solve increasingly

Table 1 - Analytical chart in the various postgraduate levels.

	Master	Doctorate	Pos-Doctorate
Degree	14%	6.8%	1.3%
Public (exterior)	89.6% (3.4%)	94.6% (6.0%)	72.7% (61%)
Time			
Till 24 months (m)	46.1%	19.2%	82.7% (34% 1 year)
25 e 36 m	34.2%	25.4%	17.3%
37 e 48 m	13%	37.7%	
More than 49 m	6.6%	17.7%	
Areas (the 10 more. all of them with less than 10%)	General Surgery-6.2% Gyneco/Obstetrics-5.2% Urology-3.6%	General Surgery-5.6% Urology-5.5% Gyneco/Obstetrics-5.1% Otorhino-3.1%	Urology-9.2% Gyneco/Obstetrics-3.8% Digestive System-2.7% Ophthalmo-2.7%

Source: Federal Council of Medicine - CFM data compilation, 2004.

complex problems, in an autonomous, critical and efficient way improving the quality of care⁷. These surgeons are limited to developing technical skills. They use repetitive, nondescript, utilitarian process with emphasis on marketing, aiming projection among peers in highly competitive market, in which ethics and social interface components are less relevant⁷⁻⁸. The lack of better training - which could be supplied by graduate - unfortunately fades. This context results in the limited field of scientific knowledge applied without distinction to the various scenarios of practice and consequential, including the quality of the care service. It is a challenge to be faced by managers of higher public administration in formulating appropriate policies to the training process.

Dias Sobrinho⁹ mentions the necessity to establish the evaluation criteria. Arises therefore the need to deepen the understanding of the profile of egresses, through the development and implementation of research and analysis parameters after discussion with coordinators of the area programs.

Thus, the development of online questionnaire (linked database) in specific worksheet would be very useful tool for programs. However, it has costs and would be recommended institutional financial support in its planning and execution. In addition to the identification data and geographic distribution, the content of this future questionnaire cannot forget information about linking employment (academic or non-academic), the identification of scientific production and regularity of publications and involvement with the research. Such data will be useful to set overview of the training of leaders and nucleation in the country. Thus, the items of a questionnaire could cover more of the following considerations: name; sex; degree obtained in graduate school; current titration; city/state; city/state in which you currently practice professional activities; name and type of institution where currently work, professional activities (public - municipal, state or federal, private, philanthropic); activity (underline): teacher (category), healthcare (specialty), research, administrative, business/industry, office, no linked to the training area, disabled by illness or another important reason, another (to detail); contact the supervisor after the defense (yes or no); publication of the dissertation or thesis (report journal/Qualis); intellectual production after post-graduate with articles indexed in national journal (yes or no) or in international journal (yes or no), patents (yes or no); Lattes update (yes or no); name two most relevant disciplines during the course; assign concept to the work of faculty: Great, Good, Fair, Poor; express opinions about graduates contribution to the career; number of unanswered forms.

Of course, the contact with the egress will require permanent action of the programs. It should be considered that the Lattes is usually outdated after titration.

Also, it is necessary to remember that any acquisition or data publication should be preceded by the

signing of Informed Consent, according to the ethical principles applicable to voluntary participation, with the right to privacy.

Therefore, the strategy for the successful mapping of the egresses could, briefly, include: registration of egresses and update data for e-mail; periodic Lattes search; national survey of development (or area) online available on the program page, in Sucupira platform, in the form of a database with institutional financial support; national program for egresses done by CAPES.

The evaluation process itself is constantly evolving, *mutatis mutandis*. However, most of the programs have no standardized system for evaluation of alumni, according to the survey of the Indicators Program Book. The development of questionnaires or forms for mapping egresses of postgraduate programs transcends mere verification of data. The clearance of the results, with the necessary self-criticism, will consider values and, above all, assess the actual post-graduate course in Brazil.

Therefore, it is appropriate to generate reflections with our peers, managers, scientific community to have a better result, understanding and contextualization of educational guidelines for our egresses, adding some questions: how many egresses have published their theses and dissertations? There are self-evaluation of program/supervisors of alumni? What is the quality of teachers and doctors trained in post-graduate studies, including professional master degree? In which sectors the professional master competes with academic? What is the total expenditure of resources to form a master, a doctor, or a post-doctor in Brazil? How many egresses exerts only private activities? In these cases, it would be reasonable to establish social retribution, in the face of public spending in this training? How many teachers have chosen not to attend the doctorate and why? How many doctors continued to do research and publish? How many teachers and doctors followed the teaching career? It is necessary educational policy for the absorption of masters and doctors in public university teaching?

In conclusion, know the reality of alumni, in methodical and detailed way, is crucial step for the programs in surgery consolidation. The mapping of the egresses of Medicine III area will require ongoing assessment aligned to dialogue among peers and the strong institutional support. A national program under the aegis of CAPES, responsible for the development of a public domain software, containing assessment questionnaire of egresses, with uniform and systematic criteria, providing mechanism to find the today missing data, is a prerequisite for realization of this goal

There is a need for adoption public health policies, education combined with science, technology and innovation, to reach the egress student and encourage him to entry into the teaching profession - that needs to be valued - adding also strong stimulation for development of scientific research.

R E S U M O

Objetivo: avaliar o sistema de mapeamento dos egressos dos Programas de Pós-Graduação da área Medicina III da CAPES. **Métodos:** compôs-se da análise dos Cadernos de indicadores e do Documento de área dos Programas de Pós-Graduação em Cirurgia e da consulta à literatura sobre o tema. **Resultados:** Constatou-se uma escassez de dados no que tange a avaliação dos egressos, junto a maior parte dos Programas. O sistema vigente para mapeamento de egressos carece de padronização e suporte institucional. Há uma concentração de pós-graduados médicos no sistema público, no entanto, estes representam uma pequena parcela dos alunos formados pelos Cursos de Graduação em Medicina no Brasil. No contexto atual, a procura pela Pós-Graduação e, conseqüentemente, pela pesquisa e carreira docente vem cedendo espaço para as atividades assistenciais não acadêmicas, na iniciativa privada e no mercado de trabalho. **Conclusão:** urge instituir não políticas de Ciência, Tecnologia e Inovação, mas de Educação e Saúde que atuem harmonicamente, estimulem a qualificação e a carreira docente e aprimorem a Pós-Graduação. Faz-se necessária a elaboração de um formulário único, sob a égide institucional da CAPES, por meio da criação de um Programa Nacional de Egressos, objetivando consolidar diretrizes para o mapeamento dos egressos dos Programas de Pós-Graduação em Cirurgia no país.

Descritores: Educação de Pós-Graduação. Avaliação Educacional. Ciências da Saúde. Estudantes.

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