ABSTRACT

Objective: This review aims to develop a critical and current analysis of the basic structure of a Postgraduate program for proposing improvement actions and new evaluation criteria. Method: To examine the items that are areas of concentration (AC), research lines (LP), research projects (PP), curriculum structure and fundraising were consulted the Area Document, the 2013 Evaluation Report and the Assessment Sheets of Medicine III programs, evaluated in the 2010-2012 period. Results: Consistency is recommended especially among AC, LP and PP, with genuine link between activities and permanent teachers skills and based on structured curriculum in the education of the student. The Program Proposal interfere, and much, in qualifying a program. The curriculum should provide subsidy to the formation of the researcher, through the core subjects, and development of PP, being the concept of disciplines to support lines and research projects. Fundraise should be set out in research projects and in the CV-Lattes. The area recommended that at least 40-50% of permanent teachers present fundraising and the minimum 20-25% of these teachers to have productivity scholarship PQ / CNPq during the triennium. Conclusion: It is necessary to promote wide discussion and find a consensus denominator for these issues. The actions should contribute to the improvement of evaluation forms and certainly for the qualification of the programs but graduate.

Key words: Educational measurement, Education, medical. Education, medical, graduate.

INTRODUCTION

This review aims to develop a critical and current analysis of the basic structure of a postgraduate program (PG), areas of concentration (AC), research lines (LP) and research projects (PP), curriculum and fundraising, to propose improvement actions and new evaluation criteria. However, understanding as inherent and essential to the development of research activities of a PG program, fundraising has been included in this review.

METHOD

To analyze the items PG, AC, LP, PP, curriculum structure and fundraising were consulted Area Document1, the Evaluation Report 20132 and Sheets of PG programs of Medicine III3, evaluated in three years 2010-2012.

RESULTS

For each topic that has been completed, and serves as guidance to current browsing of this supplement, is as follows.

Concentration Areas and Lines/Research Projects

Browsing the Document Area, the recommendations for the proposal of a doctorate course, the watchword is “articulation and coherence”.

“... The proposed course should be consistent, the lines of research and the curriculum should be related to the experience and the scientific production of the faculty. ... In this regard, we expect a clear description of the areas of concentration, lines of research, objectives and structure curriculum demonstrating articulation and coherence between these requirements ...” (2013 area of document, page 20)

Consistency is recommended especially among AC, LP and PP, with genuine link between activities and skills of permanent teachers with the curriculum toward in the education of the student. From a practical point of view, the program proposal constitutes the space for presentation of the structure, human resource and research, and the potential for development projects and training of researchers. Thus, it is desirable that this aspect represents the program “business card”, with an overview of its features, highlighting the consistency between AC, LP and PP and the program’s potential to develop activities related to human resource training in research - curriculum, permanent teachers, their expertise and skills, development projects and funds raised for research.

Although not interfering on in final grade of the program, the Program Proposal interfere, and much, in qualifying a PG program. This is why:

... “Coherence, consistency, completeness and updating of the concentration areas, lines of research, ongoing projects and proposed curriculum” ...

represents 50% of the concept attributed to this aspect (section 1.1/Evaluation Form).

To illustrate how the coherence between AC, LP and PP interferes with program qualification, see the transcription of observations of 2013 report form of one of the Medicine III programs:

... “The program in the three years has four concentration areas (AC) with 7 research Lines (LP), though in one AC there is only one LP allocated. ... The LP are structured and, in three years, 83 research projects were properly inserted in them. However, in 2012, the 7 LP, one has no projects, four have only one project, one has 3 projects and the other has 14 projects, inconsistency that the program should pay attention ...”

This structure, excessive AC and LP and without adequate number of PP that substantiate, interfere in the evaluation of the item 1. “Proposal of the Program”, being assigned Regular concept to subsection 1.1(coherence, consistency, completeness and updating areas concentration, lines of research, ongoing projects and curriculum proposal). In final presentation to the Evaluation Committee was included the following observation:

“... The note 3 was assigned as a result of the research lines, with few projects that concern the future of the program ...”

Curricular Structure

According to the recommendations on the document, the course on its Proposal should include:

From the ¹Faculdade de Medicina de Botucatu – UNESP (Faculty of Medicine, UNESP) Botucatu, SP; ²Coordenadora Adjunta Medicina III Capes (Assistant Coordinator, Medicine III/Capes), Brasilia, DF, Brazil
... Details of the curriculum (compulsory subjects, optional and complementary activities proposed) consistently on the lines of research to support projects; presentation of summaries with bibliography, highlighting that the references should include the classic and recent production in the area and must be appropriate to the level of graduate ... The curriculum must provide opportunities for training to students within projects, LP and AC. It is essential that the curriculum contemplate compulsory subjects and optional/complementary disciplines related LP and AC Program. “(2013 area of document, pages 20 and 21)

The student training within a PG program must address the three basic objectives, long defined by Sucupira (Opinion CES/CFE 977 1965, whose rapporteur was Newton Sucupira). The text that follows is updated summary of the document:

“... There are three practical objectives justifying the need of offering master and doctorate degrees efficient and in high quality:
- Competent teachers training that can meet the demand in basic and higher education ensuring at the same time, continuous quality improvement;
- Encouraging the development of scientific research through proper preparation of researchers;
- Ensure effective training of technical and intellectual workers in the highest standard "to meet national development needs in all sectors ...”.

The training of human resources in research is one of the basic objectives of the Master’s and Doctorate’s. For this, the curriculum should give subsidy to the formation of the researcher, through NUCLEAR disciplines to development PP, and the competence of the lines with SUPPORT disciplines to research projects.

And what would be the core subjects and those in support of the LP, PP? The Medicine III Evaluation Committee discussed this very point in 2004-2006, when it was strongly encouraged the inclusion of researcher training courses in the curriculum of PG programs.

For example, the 2013 review of the transcript of the curriculum of an area of excellence program:

“... The curriculum consists of a total of 8 courses ... Special Teaching in Gynecology, Medical Education in Gynecology, Development of Scientific Work, Epidemiology for Clinical Research, Clinical-Qualitative Methodology Applied to Health Area, Methodology Research in Human Reproduction I and II, and Research Methodology in Human Reproduction Advanced, being major part of them compulsory disciplines ...”.

The disciplines in support of LP/PP would be guided by the need for specific knowledge of the student to the development of his project or to consolidate LP or PP program of interest. These disciplines could be routed into other programs or taught by the program itself by its teachers or guest teachers, according to their skills and expertise. Disciplines related to technical and specific markers, such as Molecular Biology Applied Research in Women’s Health, Characterization of Functional Structure of proteoglycans and matrix components, Extracellular and Experimental Methods Transplantation and Oxidative Stress, are examples of the LP support disciplines.

The individual character, the disciplines to support LP are defined as optional or complementary; nuclear, common and necessary to the formation of any researcher, are usually mandatory.

Fundraising
On the document in 2013, recommendations for the proposal for a doctoral course make it clear what they are and how they should be described and well detailed, fundraising obtained for search:

“... Funding development agencies resources to research detailed the following: a) Display the title of the project; teaching and responsible names, employees and students of the project; state whether the teachers are of the program or another program; period of performance and the aid, accompanied by project number; amounts approved for maintenance and permanent material; name funding agency for research; mention that funding in the Lattes Curriculum of the responsible for the project; present on the writings, theses, dissertations and patents resulting from this project; b) assistance programs such as the SUS Research Program (PPSUS) with number and support of the Ministry of Health, supported by state and federal governments; institutions, departments and disciplines involved; and description of the previous data paragraph; c) Research Development devised by the private sector or the post-graduate program (PPG) (multicenter, etc .), valuing the participation of teachers’ as the search, employees, etc.; quote institutions, departments and disciplines involved; and describing the data sub-item “a” ...” (document area 2013, pages 20 and 21)

In relation to this item, the Evaluation Report in 2013 found:

“Sub-2.5. Proportion of faculty with significant fundraising for research (Development Agencies, Productivity Scholarship in Research and technological Development, National Funds and International Covenants etc.). Fundraising can be identified at two locations of Coleta-Capes: the Proposed Program and Description of Projects. In both places, there is ease of data presentation (funding agency, project number, capture value, project name, DP name and duration of funding). The number of programs presented with incomplete data was high, often damaging the analysis. “(Evaluation Report, 2013, page 5)

The fundraising data is evaluated on specific items:
1) Proposal on the course - subsection 1.3. Infrastructure for teaching, research and, if appropriate, length (weight=30%):

“... Fundraising for development agencies: a) title of the project description; responsible teacher name, employees and students on this project; period of performance and the aid, accompanied by project number; amounts approved for maintenance and permanent material; funding agency for research; check in the curriculum Lattes of the behalf of a project; PP and development ... “

2) in the Faculty Evaluation - subsection 2.5. Proportion of faculty with significant fundraising for research (Development Agencies, Productivity Scholarship in Research and Technological Development, National and International Financing, Covenants, etc.) (weight=10%):

“... Does the number of teachers involved and the values obtained in research projects funded by development agencies. Indicator: Lead or participate in team research projects with funding and have productivity research grant or equivalent funding agencies ...”

The fundraising must be indicated also in research projects and in the CV-Lattes benefit/charge of the projects. The area recommended that at least 40-50% of permanent teachers present fundraising and the minimum 20-25% of these teachers have productivity scholarship PQ/CNPq during the triennium. Note that inadequate and inconsistent information will not be considered. These recommendations were noted in the comments and assessments of program evaluation forms:

“... It is noteworthy that for the evaluation is important to provide complete information, the names of the involved teachers, research projects for which the aid is intended, the aid implementation period, amounts approved for maintenance and permanent material, between others. Yet, there is DP quote with productivity in research grant from CNPq. “

“... The fundraising for research projects was carried out in three years for 9 DP (38%) is considered lower than expected for the area. Although valued by area, there is no report of DP with Productivity Scholarship in Research of CNPq. “

“... In 2012, there is mention of funding of about US$
Concentration areas, lines of research and research projects are the fundamental structure of a PG program. The AC characterize the program and define the activities of faculty/student research. The LP must be linked to AC and consistent with the PP. In line with this basic structure, curriculum, physical space and LP. In line with this basic structure, curriculum, physical space and LP. In line with this basic structure, curriculum, physical space

for research and obtained financial resources should subsidize the teaching of research activities/student, necessary for the formation of the researcher.

Proposals for debate
Define and characterize AC and LP a strict sense PG program is still difficult task and object of doubts and inadequacies for most coordinators and program faculty. Even today, some AC are confused with LP that, as a rule, remain broad, comprehensive and with characteristics appropriate to a specialization course. This is a crucial point for discussion and definition of improvement actions for evaluating the programs. Similarly, it would be a natural outcome of this discussion, the ideal number setting: AC for a PG, LP for each AC, PP within each LP; resources/fundraising in the number of PP and permanent teachers.

In conclusion, it is necessary to promote wide discussion and find a consensus denominator for these issues. Such actions should contribute to the improvement of evaluation forms and, certainly, for the qualification of post-graduate programs.

REFERENCES


Resumo

Objetivo: Essa revisão tem como objetivo elaborar uma análise crítica e atual da estrutura básica de um programa de Pós-Graduação para a proposição de ações de aperfeiçoamento e novos critérios de avaliação. Método: Para analisarem-se os itens áreas de concentração (AC), linhas de pesquisa (LP), projetos de pesquisa (PP), estrutura curricular e captação de recursos fomentos foram consultados o documento de área, o relatório de avaliação 2013 e as fichas de avaliação dos programas da Medicina III, avaliados no triênio 2010-2012. Resultados: A coerência é recomendada especialmente entre AC, LP e PP, com subsistencial vínculo entre atividades e competências do corpo de docentes permanentes e embasamento da grade curricular na formação do aluno. A Proposta do Programa interfere, e muito, na qualificação de um programa. A estrutura curricular deverá dar subsídio à formação do pesquisador, por meio das disciplinas nucleares, e ao desenvolvimento dos PP, de competência das disciplinas de apoio às linhas e aos projetos de pesquisa. Os fomentos devem ser indicados nos projetos de pesquisa e no CV-Lattes dos beneficiados/responsáveis pelos projetos. A área recomenda que, no mínimo, 40 a 50% dos docentes permanentes apresentem captação de recursos e que o mínimo de 20 a 25% desses docentes tenham bolsa de produtividade PQ/CNPq durante o triênio. Conclusão: Há que se promover ampla discussão e encontrar um denominador de consenso para essas questões. As ações deverão contribuir para o aprimoramento das fichas de avaliação e, certamente, para a qualificação dos programas de pós-graduação.