

## The professional path of postgraduates of a professional master's degree in primary health care in the municipality of Rio de Janeiro, Brazil: an evaluative study

Elyne Montenegro Engstrom (<https://orcid.org/0000-0001-6149-3396>)<sup>1</sup>

Virginia Alonso Hortale (<https://orcid.org/0000-0002-4224-9838>)<sup>1</sup>

Carlos Otávio Fiuza Moreira (<https://orcid.org/0000-0001-7796-5829>)<sup>1</sup>

**Abstract** *A four-block exploratory study was conducted with an electronic online, anonymous questionnaire to study the path of postgraduates from two professional master's degree classes, as follows: personal, current professional activity, course-professional situation relationship, and open-ended questions for positive/negative points. Results: Most of them remained in the primary care area and public services; in health care and as tutors; developed a course-related work activity, and 75% reported a high impact of the course. A lower effect was perceived in the remuneration. A higher effect was noted in the professional training, the networks of relationships, personal growth, and work. The active pedagogical strategies were well evaluated. Conclusion: This is a feasible and applicable evaluation method for graduate monitoring systems, and it allows knowing the relationship between training and work.*

**Key words** *Primary health care, Professional master's degree, Graduates, Evaluation, Health education*

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<sup>1</sup> Escola Nacional de Saúde Pública Sérgio Arouca, Fiocruz. R. Leopoldo Bulhões 1480/9º, Manguinhos. 21041-210 Rio de Janeiro RJ Brasil. [engstrom@ensp.fiocruz.br](mailto:engstrom@ensp.fiocruz.br)

## Introduction

In Brazil, especially in the health field, the production of knowledge about postgraduate professional training to work in the Unified Health System (SUS) is still irregular<sup>1,2</sup>. The follow-up of training processes that discuss experiences aimed at the development of new professional competencies has also been irregular<sup>3-5</sup>, although this follow-up has gained more prominence in the agenda of postgraduate educational institutions, such as the development of the National Postgraduate Plan (PNPG) 2011-2012, created through the CAPES Ordinance N° 106, of July 17, 2012<sup>6</sup>.

In this sense, unsystematic studies on the fate of graduates of *stricto sensu* graduate courses, professional modality, have not been satisfactory to identify the effects of this training in improving the quality of care and strengthening the SUS. Such impressions are confirmed by the finding that the Coordination for the Improvement of Higher Education Personnel (CAPES), a body of the Ministry of Education responsible for the regulation and evaluation of postgraduate studies in the country, only from 2017 onwards included more explicitly other evaluation guidelines that transcend that based on bibliometric production, especially of teachers, to other evaluation guidelines that consider the academic and professional path of graduate students. This is the case of the proposal to improve the postgraduate evaluation model, expressed in a final document of the National Monitoring Commission of the PNPG 2011-2020, published in October 2018, stating that “the evaluation contributes to continuous improvements and accounts the Brazilian society for the differentiated quality of the programs”<sup>6</sup>. Thus, postgraduate programs should carry out their strategic planning, program self-evaluation, and monitor the path of graduates as proxies of the impact of the courses to the institutions and society. Such activity is especially relevant in professional courses, where the production of knowledge is expected to be related to institutional demands and the service of society and the state. The training products must be applied and transform reality, with the development of new ways of translating knowledge. To this end, the training process must develop in the students critical thinking, autonomy, the capacity of generating and transferring innovative technologies and knowledge to solutions of problems in their field through the acquisition of competences to produce knowledge in their specific area. The

curricula should allow a more flexible training that is dialogic to the demands. With the belief that this is the mission of professional training, we developed the experience of a professional master’s degree course in Primary Health Care, followed by an evaluative study whose methodology and results are shown in this paper.

Concerning, specifically, the theme addressed in the course, Primary Health Care (PHC), was introduced in the Alma-Ata Declaration in 1978 and consolidated in Brazil over the following decades by successive international and national recommendations. It is the basis for a new model of care in public and universal health systems focused on the user-citizen, family, and community, anchored on essential attributes: main gateway, longitudinal linkage, integrality, and coordination of care<sup>7,8</sup>. Over the last twenty years, several federal government regulations have induced the reorganization of the PHC model, movements that were consolidated with the National Primary Care Policy (PNAB), published in 2006, with reissues in 2011 and 2017, and such regulations reaffirmed the priority option for the Family Health Strategy, integrated into the Health Care Network in the country<sup>8,9</sup>. Despite the considerable expansion of Family Health Strategy in Brazil, especially in urban centers, coverage is still irregular in the various regions of the country, with many challenges for improving the quality of care provided with models for comprehensive, robust and effective care<sup>10</sup>.

It was no accident that essential discussions about health education emerged with the issue of the healthcare system’s reorganization. It was relatively clear then that professional profiles were inadequate for a new health work process. In this sense, the National Curriculum Guidelines for health courses were established in the early 2000s, explicitly related to the healthcare model changes. From then on, health education was no longer a peripheral theme in the national government spheres<sup>11</sup>. At this same time, the Brazilian Ministry of Health started to promote Professional Masters, aimed at professionals who already worked in health services. This postgraduate course has been recognized by CAPES since 1998<sup>1</sup>.

Currently, the community of education scholars agrees that learning transcends the boundaries of initial formal education and should be encouraged throughout working life. Knowledge and practices are reevaluated continuously and transformed in the field of health. Lima<sup>12</sup> argues that the reflection on profession-

al practices should take place in a dialogic construction “between the worlds of school and work with society from the explanation of different, socially and historically established interests, values and knowledge. The curricula oriented by this approach are developed around axes that articulate and integrate theory and practice, skills and actions, contexts, and criteria of excellence”.

Regarding the issue of monitoring graduates, the Oswaldo Cruz Foundation (Fiocruz) – a body of the Ministry of Health and a Science and Technology institution dedicated to research, education and technological development in health, which holds a prominent position in professional training and the formulation of guidelines for scientific and technological development in health – has already made some efforts in mapping the path of its graduates<sup>13,14</sup>.

These sets of research inspired and were further developed with this study. To study the path of graduates of a professional master's degree course, we sought to capture their views regarding the contributions of this training to the world of work, an analysis of the successes and limitations, to contribute to the development of follow-up processes for postgraduate courses.

### The course

Considering the importance of PHC and, more specifically, the Family Health Strategy (FHS) as a model of care in the formulation of public health policies in Brazil, several challenges aimed at expanding the supply and giving higher quality practices in health services in large urban centers are still out there<sup>10</sup>.

These challenges are present in the city of Rio de Janeiro (MRJ), locus of this study. Municipal health managers have reformed the PHC care and management model in the city since 2009, resulting in increased Family Health Strategy coverage from 5% to about 70% from 2009 to 2016<sup>15</sup>, respectively. This increased offering of primary health services was evaluated in local studies that identified the need to improve the quality of some attributes, such as the coordination of care, besides the expanded access<sup>15,16</sup>.

In this same context, also highlighted are municipal investments in health education processes, with the creation of an extensive Program of Medical Residency in Family and Community Medicine and support for Multiprofessional Residency, as well as the Nursing Residency in Primary Health Care – training that required the presence of qualified tutors in the services,

one of the competencies expected by the Professional Master in Primary Health Care (PMPHC) course<sup>17,18</sup>.

As part of this process and aiming to contribute to the improved professional training, the PMPHC Course with emphasis on FHS was proposed in 2010 and is the result of a partnership between the Sérgio Arouca National School of Public Health of Fiocruz and Rio de Janeiro's Municipal Health Secretariat (SMS). The curriculum of the course was inspired by the Professional Master's Degree in Family Health of the Northeast Family Health Training Network (RENASF), a partnership between universities in that region and Fiocruz, whose reference was the practice of health professionals working in PHC<sup>14,19</sup>, with adaptations to the epidemiological and health care reality of the city of Rio de Janeiro.

Consistent with the general guidelines of the Professional Masters, the course aimed to systematize the technical-scientific knowledge produced in the daily work of professionals, aiming to enhance skills to improve the quality of work in PHC and contribute to the strengthening of the UHS. The underlying themes of the curriculum were related to knowledge, skills, and attitudes needed to achieve the expected competencies for PHC professionals. The curriculum is understood as a social construction, and considered, besides the contents, the teaching-learning process, and the evaluation based on the explicit intentionality of the graduate's competence profile: professional leaderships that can act reflexively in research and in-service teaching (tutorship) activities, without relinquishing their activities in the care or management of the FHS. For such intentionality, the curriculum structure corresponded to seven thematic modules related to the expected areas of competence: i) to develop health promotion actions, ii) to understand and act in the model of comprehensive primary healthcare, and iii) to have the competence to act in the clinic management, iv) to use health information and communication, v) to act in health planning and evaluation vi) to perform health education activities, especially in the tutorship and exercise of teaching and learning methodologies, and vii) to produce scientific or technological knowledge, adopting scientific research methods. The module “Follow-up Seminars” and a variable section, whose content was developed from the interests of students and managers, called “Special Topics” was proposed to meet the process of developing the course products (dissertation,

technical material, intervention projects, among others). The course had a total workload of 1,470 hours, with 80% in weekly classroom activities<sup>18</sup>.

Learning objectives were achieved by employing several educational strategies based on the active methodologies, considering the strategy adequacy to reach the expected competence and its evaluation method, which was performed systematically. In Chart 1, we highlight the main strategies adopted, such as tutorial group, dialogued exposition, seminar, directed study, skill training, team projects, among others.

The course proposal was systematized and delivered to the students as a printed notebook, which included the course's guidelines<sup>20</sup>. A virtual learning community was also developed to carry out some activities in the form of distance learning (DL), accompanied by the course coordinator.

Two classes were offered in 2011-2013 and 2013-2015, with 24 seats per class. While with a multi-professional composition, about half of the students approved in the selection process were doctors. As a prerequisite for enrollment, all applicants should work in the municipal government Primary Healthcare, whether as care profes-

sionals or managers of primary healthcare units. From the universe of enrolled in the course, 90% and 85% graduated, respectively, in the 1<sup>st</sup> and 2<sup>nd</sup> class. It is noteworthy that the authors of this study participated in the preparation of the curriculum, coordination, and teaching of the two classes of the course.

## Methods

This is an exploratory, cross-sectional study, with quantitative and qualitative data survey about the relationship between PMPHC training and health work of the egresses of that course. Although the term egress may be used to refer to the graduate student or cover students who have left the course due to abandonment, transfer or retirement, without entering into the merit of this aspect, for this study, we consider as egress only the student who completed his studies in the course.

The study universe consisted of 42 graduates, identified through the ENSP Academic Student Management Service (SIGA). As a data collection instrument, we elaborated an electronic ques-

**Chart 1.** Description of the educational strategies and tools for evaluating the contents of the various course modules.

Educational Strategy	Content evaluation tool
Tutorial Group	Processing of problem situations, cases or reporting of narrative practices that address different topics as a basis for Problem-Based Learning (PBL).
Seminar	Educational activity necessarily performed by a team or group and with the effective participation of all its members, with theme and prior planning.
Team-based learning	Promoting knowledge building, with emphasis on application, and collaborative learning. Questions are based on a text, with individual and collective answers.
Community-Based Practice Narratives	Choice of specific theme to produce a report or narrative of the daily situation experienced. Analysis as per the constructivist spiral.
Skills development	Development of cognitive and motor skills.
Team project	Strategy to exercise the elaboration of intervention projects by a team
Mini-Exhibition	The exhibition is for the whole class, with dialogue with students as a fundamental resource.
Oriented study	Oriented individual study strategy, for the ability to read, interpret and write on a particular subject.
Simulation, Role Play, Experiences	Used to critically represent the engagement in professional practices in the context of PHC, group activity, with established script.
Virtual learning Community	Realization of forums and team activities.

Source: Own elaboration.

tionnaire for online completion, which link was sent by e-mail to all participants and was available between July and August 2016. Respondents were not identified. The choice of the online procedure was justified by its accessibility and time streamlining of respondents. The research team made prior contact with all participants by e-mail or telephone, sensitizing them about the importance of the study, updating e-mail addresses, and remembering deadlines to minimize possible losses. A specific email address was available for questions and contact with the investigation team.

The questionnaire consisted of four blocks: i) registration data; ii) nature of the current professional activity; iii) relationship of the course with the current professional situation; iv) course evaluation. As part of this last block, fields for comments on whether the current graduate work process was facilitated or limited by the aspects of the course in the questionnaire were available, namely: selection process, set of modules, contents covered, faculty, pedagogical practices adopted, small group work opportunity, teamwork learning, use of problem situations and opportunities for discussion, development of communication skills, development of their potential leadership, student evaluation strategies, teacher and module evaluation strategies for students, learning research methods and techniques, dissertation orientation, stimulating the active search of electronic databases, services provided by the academic secretariat, relationship of coordination with students, facilities, services and library collections, infrastructure for classes and group meetings. Finally, open space was facilitated for graduates to give their opinion on the strengths and weaknesses of professional training.

A pilot test was run with a professional who was not included in the study, to verify the readability of the instrument, the relevance of the statements, the reliability of the answers, and the control of possible biases resulting from its completion. The answers whose questions had closed-ended fields were consolidated in an Excel spreadsheet with simple frequency analysis. The answers whose questions were open-ended were qualitatively transcribed and systematized by thematic content categories, as per Flick<sup>21</sup>, which explored aspects related to the achievements and limitations of the training for the world of work. The reflexive controls strategy was used to isolate, as far as possible, intervening variables, in which “subjects submitted to the intervention are compared with themselves, when asking

about work before and after the intervention, in this case, the course”<sup>22</sup>. This option was necessary because of the relatively short time between course completion and data collection. A specific time interval – we consider plausible around five years to capture the effects of training on professional life – is required in the case of a study of the path of graduates. The ENSP Research Ethics Committee approved the project under CAEE N° 54284316.6.0000.5240/2016. The agreement to participate implied accessing the link provided in the email message, entering the first screen of the questionnaire and viewing the Informed Consent Form (ICF), and then accessing the other screens of the questionnaire.

## Results and discussion

### Profile and nature of the current professional activity of graduates

From the universe of graduates, 22 completed the questionnaire, which means a response percentage of 53%. The fact that 17 respondents are female and five male corroborates findings from studies on feminization in the public health area<sup>23</sup>.

Regarding the professional category of the respondents, 55.5% were doctors, 28% nurses, and the rest in the areas of dentistry, pharmacy, and nutrition, a profile similar to the universe of enrolled students. Most respondents (> 90%) reported having one or more specialization courses before entering the master’s degree, which may mean a tendency for cultural capital to accumulate in its institutionalized form, the diploma, as per the sociology of education studies by Bourdieu<sup>24,25</sup>.

Table 1 shows aspects related to the professional incorporation of the graduates at the time of data collection, and multiple answers were possible in some questions, such as that the egress listed one or several places of professional practice (characteristic of health professionals), which justifies more responses than participants. We found that 17 respondents were still working at the municipal level, and only four of them migrated to other public spheres, namely, one to the federal, one to the state level of the SUS, and two to an educational and research institution (Ministry of Education).

A high and equivalent proportion of them remained in Primary Health Care (82%). Only 9% started to work in specialized or outpatient care, and none moved to hospital care. Two respon-

dents do not work at any of these levels of the health system and have migrated to education, as mentioned above.

More than half of the respondents worked directly in health care, and most of them still accumulated the tutorship function. The development of teaching and research activities was mentioned by 45.5% and 22.7% of them, respectively, highlighting the knowledge production activity in health services. These data are similar to the study by Gomes and Goldemberg<sup>23</sup>, in which “70% of Professional Masters (PM) graduates

develop health management activities, besides research activities (30%), along with teaching (23.3%), technological development and assistance and consultancy (20%)”. The report that half of the respondents started to work in health management would express an effect of the egress role in the municipal setting, considering that the formation of leaders with a critical vision for decision-making was one of the expected and stimulated competences in the course.

Although most professionals work in public services linked to the SUS (90%) and none in the

**Table 1.** Distribution of variables related to the Professional Incorporation of Graduates. Municipality of Rio de Janeiro, 2016.

Variables: Incorporation in July/August 2016	n	%
Type of Working Institution (n=24 answers) More than one answer can be selected		
Network of the Municipal Health Secretariat	17	77.3
Network of the State Health Secretariat	2	9.1
Network of the Ministry of Health	3	13.6
Other	2	9.1
Level of care: main professional incorporation (n=23 answers) More than one answer can be selected		
Primary Health Care	18	81.8
Specialized care/Outpatient clinic	2	9.1
Hospital	0	0.0
Other	3	13.6
Type of Activity (n=51 answers) More than one answer can be selected		
Healthcare	12	54.6
In-service preceptorship	11	50.0
Health management	12	54.2
Consulting	1	4.6
Education	10	45.5
Research	5	22.7
Other	0	0.0
Nature of working institution (n=22). Only one answer allowed (main institution, higher workload)		
Public	20	90.0
Private	0	0.0
Other	2	9.1
Type of professional relationship (n=22) Only one answer allowed (main institution, higher workload)		
Single Legal Regime	6	27.3
Consolidated Labor Laws (CLT) Contract	12	54.6
Cooperative worker	0	0.0
Temporary contract	0	0.0
Self-employed	0	0.0
Scholarship holder	0	0.0
Other	4	18.2

Source: Own elaboration.

private sector, a diversity was identified in labor relationships: more than half were hired as CLT workers – by labor laws (55%), and 27% were civil servants, a relationship profile that shows the option of municipal management in Rio de Janeiro, from 2009, by contracts managed by the Social Health Organizations (OSS).

### Relationships between current work and PMPHC training

Only 13.6% reported maintaining the same professional activity in the same institution (i.e., SMS). For the others, there was a change in the nature of their professional activity, of which 40.9% changed their activities but remained at SMS, and 31.8% also changed their institution (migrated to universities, the Ministry of Health, or the State Secretariat). However, more than 80% of respondents developed course-related activities at work. Regarding the effects of the course on the current work, 77.3% consider them high, 18% medium, and only 4.5% low (Table 2).

Regarding the changes attributed to training, there was an increase in the aspects of the graduates' financial remuneration, labor relationships, labor social relevance, prestige, opportunities for professional development, and new learning, with creativity and autonomy (Figure 1).

These findings are in line with another study with graduates of three professional master's courses in the area of health science and technology management, although the latter also found that the accumulation of knowledge generated did not contribute to the implementation of the research proposal of graduates, indicating a low institutional commitment to their reception and implementation<sup>13</sup>.

Other notable aspects include the stress and workload perceived by graduates. These were dimensions with the lowest perception of improvement compared to the period before the course. Exhaustion- and stress-related illness at work, the Burnout Syndrome consists of three specific dimensions, emotional exhaustion, depersonalization, and professional fulfillment. It mainly affects workers who engage in human services, providing answers to people's needs, as in the case of primary health units<sup>26-28</sup>. Corroborating our findings, a cross-sectional study conducted with managers of primary health units in the city of Rio de Janeiro in 2015 showed that most PHC managers have high or moderate levels in the three dimensions of burnout, and the overall assessment of the syndrome was identified

in 11.2% of managers, a higher percentage than found in national studies of primary health care professionals<sup>29</sup>. A study conducted with primary care health professionals in the city of Juiz de Fora (MG), Brazil, showed that the prevalence of the syndrome was 51%, highlighting that it was higher among nursing professionals, which leads us to think about the complexity and demanding nature of work in primary health care services<sup>30</sup>.

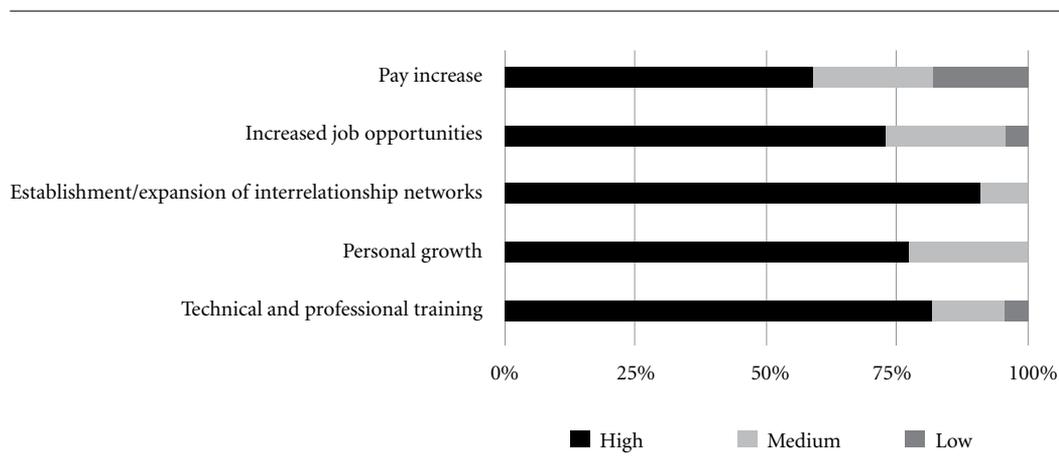
### Graduate's evaluation of the course

Regarding the organization of the course, the opinions of the graduates were excellent/good for most of them (> 90%) in the aspects of selection, content, faculty and, especially, concerning educational strategies related to active methodologies, highlighting the work in the tutorial groups (problem situations), as well as regarding the physical space. Aspects of incipient performance (around 30-40%) referred to the strategies of

**Table 2.** Distribution of variables by characteristics of graduates' work in July / August 2016 and training in the course. Municipality of Rio de Janeiro, 2016.

Variables	n (= 22)	%
Main professional activity at the beginning of the master's degree		
The same as that of the current professional activity in the same institution	3	13.6
The same as that of the current professional activity in another institution	3	13.6
Different from that of the current professional activity in the same institution	9	40.9
Different from that of the current professional activity in another institution	7	31.8
How much the main professional activity is related to the master's degree		
Very much related	15	68.2
Reasonably related	4	18.2
Barely related	3	13.6
Unrelated	0	0.0
Impact of the Masters on your working life (only one option checked):		
High	17	77.3
Medium	4	18.3
Low	1	4.6

Source: Own elaboration.



**Figure 1.** Proportion (%) of the level of impact of the Master Course in graduates (high, medium, low) related to the work of the graduates. Municipality of Rio de Janeiro, 2017.

Source: Own elaboration.

teacher and module evaluation by the students, as well as the learning of research methods and techniques (Table 3).

#### Graduate's opinion about the training

Regarding the open-ended questions, when the graduates expressed their opinions in free text, the comments were mostly positive (successes) and were about the course content, the educational methods, the coordination, faculty, and advisors. The negative (limiting) comments were about the evaluation strategy, "not fully complied with", and the research methods presented "superficially". Positive opinions were more numerous and were grouped into two sub-categories for presentation purposes in this paper: teaching-learning process and coordination.

Regarding the teaching-learning process, positive comments have focused on active methodologies and their importance for the development of speech and communication skills, small group activities, problem situations approach, critical thinking, reflection about practice in service. These assertions reinforced the pedagogical option of the Professional Master's course, which sought to establish a clear relationship between training processes and work in health services, between education or training and health work and, specifically, between the chosen educational strategies and (individual and collective) perfor-

mance of the students. The curriculum designs and educational strategies that can be employed are manifold and will produce very different meanings and effects on practice by the method employed<sup>31</sup>.

Three opinions express well the importance of how these methods influenced the work process of graduates in Primary Health Care and tutorship:

What most impacts the work process was the use of problem situations and opportunities for discussion in the Master's course. This opportunity influenced the dialogue with my colleagues and the experience of Rio de Janeiro.

Undoubtedly, what caught our attention the most was to get in touch with active methodologies and put them into practice. This still guides my teaching practice and further qualifies the residence from which I am a tutor.

Learning process has broadened the vision of the work process and facilitated the use of tools in favor of quality, as well as other job opportunities.

Such methodological (active) teaching-learning strategies have been used since 2011 in post-graduate experiences in professional masters. Lima<sup>32</sup> shows a graphical representation called "constructivist spiral", where such strategies are integrated into problem identification movements, formulation of explanations and elaboration of learning questions, the search for new

**Table 3.** Evaluation of aspects of the curricular structure of the course in the opinion of the graduates (n = 22). Municipality of Rio de Janeiro, 2016.

Variable	Excellent/ Good %	Reasonable %	Poor/ Very Poor %	Did not answer %	Total
Selection	90.9	9.1	0.0	0.0	100.0
Disciplines or Modules	95.5	4.5	0.0	0.0	100.0
Content	86.4	9.1	4.5	0.0	100.0
Faculty	95.4	4.6	0.0	0.0	100.0
Pedagogical practices	90.9	9.1	0.0	0.0	100.0
Work Groups	100.0	0.0	0.0	0.0	100.0
Team work	86.4	9.1	0.0	4.5	100.0
Problem situations and discussion	90.9	4.5	0.0	4.6	100.0
Communication skills	90.9	9.1	0.0	0.0	100.0
Leadership	77.3	18.2	4.5	0.0	100.0
Student Assessment	86.4	9.0	4.6	0.0	100.0
Teacher and modules evaluation by students	59.1	27.3	9.0	4.6	100.0
100.0	68.2	27.2	4.6	0.0	100.0
Research methods learning	68.2	27.2	4.6	0.0	100.0
Dissertation orientation	81.8	18.2	0.0	0.0	100.0
Data search in electronic databases	81.8	13.6	4.6	0.0	100.0
Academic Secretariat Services	77.3	13.5	4.6	4.6	100.0
Relationship with Coordinators	100.0	0.0	0.0	0.0	100.0
Facilities, services and library	95.5	0.0	0.0	4.5	100.0
Infrastructure - classes	100.0	0.0	0.0	0.0	100.0
Infrastructure Group Meetings	100.0	0.0	0.0	0.0	100.0

Source: Own elaboration.

information, aiming at the construction of new meanings and the evaluation of processes and products for a “new synthesis”.

Regarding coordination, including the teachers, the comments focused on their availability. Two positive comments stand out:

Both the relationship with the course coordinator and the advisors were fundamental for the best use of the course and the preparation of the dissertation.

Flexible, proactive, and extremely accessible faculty allow for a better learning experience.

Finally, a comment can be considered the synthesis of the positive comments of the students about the importance of the Course in their training:

*The content, the faculty, the course structure, and my advisor have subsidized me to reach projects and still do so in my current work process.*

## Final considerations

This paper shows the results of a research about the relationships between training in a professional master's degree in Primary Health Care (two classes) and subsequent professional performance of graduates. Moreover, it helped improve the methods and educational assessment strategies developed in previous studies at the institution studied (ENSP/Fiocruz). Regarding the results, it can be said that most of the graduates continue to work within the SUS, although with a work by labor law relationship (and not statutory), that is, they continued to work in the services or management of municipal primary healthcare, the scope of the professional profile when selecting the course. Most of the professionals exercised, or began to exercise during the course the function of in-service tutorship of the

medical residency in Family and Community Medicine (course offered by SMSRio), which had hugely expanded the number of students concurrently with the Master's degree<sup>17</sup>.

Regardless of the place of performance and in our view, in a virtuous movement, the course changed the lives and work of the graduates. Professionals have taken on new roles, whether remaining in healthcare and tutorship – core tasks for services and the training of residents/students – or incorporating roles in management, education, and research. They were satisfied with the training, its contents, methods, and operational aspects, as well as suggestions for improving the formative evaluation components of the course and the contents related to research methods.

These results provided course coordinators with morale through the experience and stimulated new ventures, such as the completion of the third class of the course in 2018–2020, pointing to training models that can be even more consistent in the use of active methodologies. Corroborating reflections on the conception of the course presented in its pedagogical project<sup>18</sup>, the core challenges in the formation of PMPHC are the epistemological plan, the development of skills for professional training that produce meanings consistent with the importance of Primary Health Care for the consolidation of the UHS and the notion of health as social production. From the perspective of teaching-learning strategies, the use of dynamics that value learning subjects, their sociocultural contexts, and experiences and, concerning work environments and relationships, their effective discussion, bringing them into the environment of learning. Strategies based on problem situations or discussion of daily practices, tutorial groups, seminars, role plays, team projects, conversation wheel, among others, were experienced (and well-evaluated) by the group.

As a limitation, we can mention the small universe of participants (only two classes) and the time of 2–4 years for the completion of the course, sometimes short to assess the effects of training on the path of graduates. As an innovative component and potentiality, we highlight the lack of studies of this nature, such as the one presented here, as well as the study methods, which used distance data collection strategies, with self-completion and anonymous instruments, as used in other epidemiological surveys to study morbidity in Brazil. This methodology proved to

be feasible, swift, and promoted reasonable adherence of respondents, perhaps impaired by the short collection period (1–2 months) when some professionals were on vacation (July). Inspired by the success of this experience, and reinforcing the relevance of the availability of timely information about the graduates' path, other experiences of monitoring and evaluating the graduates of other courses in our School programs followed.

We can conclude by highlighting the importance and feasibility of following graduate students, an activity that has been gaining prominence in policies aimed at improving the quality of education in the country. While incipient, the federal government engaged in an initiative to analyze data from postgraduate students (publication of 2017, referring to the 1996–2014 period)<sup>33</sup>, which focused on the training and work of masters and doctors in the light of the guidelines proposed by the 2005–2010 and 2011–2020 national postgraduate plans that signaled the importance of promoting high-level human resources training in strategic areas such as Health Sciences.

Beyond specific studies and initiatives, the challenge is the development of continuous evaluation processes, configuring itself as a graduate follow-up system. Addressing difficulties in higher education institutions, Lima and Andriola<sup>34</sup> point out some of these that may influence such monitoring, such as the non-standardization of research and its periodicity; the low response rate; the need for research incentives; the qualification of personnel to conduct the research; the institution's relationship with the graduate; integration between different institutional systems for data capture; delay and transparency in the dissemination of results and integration with the labor market. Such considerations could be thought of within postgraduate institutions.

We reaffirm, therefore, the importance of following the professional path of graduates of postgraduate courses is reaffirmed; that these assessments contribute to more committed education and in tune with the guidelines of the current UHS education policy, the changes in educational legislation and the labor market in the students' working areas. This is especially relevant in times of, so to speak, threatening changes to the right to health, and historical achievements of the UHS as a universal, public, and equitable system.

## Collaborations

EM Engstrom, VA Hortale and COF Moreira participated equally in all stages of preparation of the article.

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