The professional activities of the former students of the Graduate in Dentistry in the area of Collective Health

Luis Felipe Pupim dos Santos*; Suzely Adas Saliba Moimaz**; Clea Adas Saliba Garbin**; Tania Adas Saliba**; Nemre Adas Saliba**; Orlando Saliba**

- * PhD student, Graduate Program in Collective Health, Araçatuba Dental School, Universidade Estadual Paulista
- ** Professor, Graduate Program in Collective Health, Araçatuba Dental School, Universidade Estadual Paulista

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ABSTRACT

Post-graduation stricto sensu programs have been increasingly established in Brazil. In recent times, several strategies have been applied aiming to improve the quality of post-graduation assessment processes. Among the forms of assessing a post-graduation course, the monitoring of professional or academic activities of graduates has been highly valued. This study aimed to identify the professional and academic activities of graduates from the Postgraduate Program in the area of Dentistry in Collective Health of the State University Júlio de Mesquita Filho, Campus of Araçatuba. The curricula of 91 graduates of the program, which are available in the Lattes platform, were analyzed. The graduates are distributed in all macro-regions of Brazil, but the majority is concentrated in the Southeast. A great portion of the graduates works in the academic environment (80.23%), having the most professional bonds with public universities. The work in public healthcare was also frequent (32.56%), occupying positions in health coordination, healthcare networks, municipal and state health departments, as well as in the Ministry of Health.

Descriptors: Post-Graduate Education in Dentistry. Public Health. Evaluation.

1 INTRODUCTION

In Brazil, post-graduation stricto sensu courses (Masters and Doctorate courses), are largely responsible for the research in all fields of study. Overall, graduate students should fulfill predefined credits of mandatory and optional subjects, as well as participate in research projects, among other activities. At the end of the course, they are evaluated by presenting dissertations or theses argued by professors and experts in the field. The students should also publish their studies in scientific journals to promote their work in the academia¹.

The Coordination for Improvement of Higher Level or Education Personnel (Capes) is an institution from the Brazilian Ministry of Education that plays an essential role in establishing and expanding Brazilian postgraduation stricto sensu programs (Masters and Doctorate courses). Among its various actions, which are extremely important for higher-level education, we may highlight the assessment of post-graduation stricto sensu programs, access promotion of scientific production, investments in forming high-level resources in Brazil and abroad, and promotion of international scientific cooperation. This organization is largely responsible for improving the Brazilian performance in scientific and academic fields over the last decades².

Institutionally, Brazilian post-graduation programs date back from the 1960s, upon approval of report n. 977, on December 3 of 1965, by the Board of Higher Education of the Federal Council of Education at the time. Said document aimed to clarify the nature and objectives of this field of education and, according to Cury³, it still holds the position of systematic reference for organizing and implementing post-graduation programs in Brazil³. Before the approval, there were already post-graduation courses in operation. In the

1960s, Brazil had 38 courses, from which 11 were Doctorate, and 27 were Masters programs⁴. However, the purposes and objectives of post-graduation programs were not clearly defined, as well as their structure. This was one of the reasons that led to the creation of said report, considering that implementing and developing post-graduation in higher education was required⁵.

In 1961, Law 4,024 was enacted, establishing the Guidelines and Bases of the Brazilian Education, which covered all levels of education. For post-graduation, this law served as the first step toward its regulation, because it separated the three categories of higher education and defined them as graduate, post-graduate, and specialization education. Nevertheless, inaccuracy on the objectives and methods of post-graduation programs remained effective. Therefore, in 1965, report 977/65 was created, which was also known as the Sucupira Report, because of the name of its reporting judge, Newton Sucupira⁵. The following is a part of the report:

> "It is of academic and research nature, and even though operating in professional sectors, its objective is essentially scientific, while specialization, as a rule, is eminently practical and professional; it provides academic degree, whereas specialization provides a certificate; finally, the systematics of graduation forms a vital and superior layer in the hierarchy of courses composing the university complex... Sensu stricto, that is, the system of regular courses that superimposes graduate studies, aiming to develop extensively and deeply the studies of graduate courses and to obtain academic degree"5.

Up to the 1960s, the education model used in Brazilian universities encouraged neither research nor technological development. From

the 1960s on, following the example of universities in the United States, the ideology of higher education in Brazil began focusing on research. At this time, post-graduation programs were almost nonexistent, and the rare cases were isolated and represented personal interests rather than social ones; graduates finished their higher education and, with the support of professors, unveiled the challenges on their (internships, readings, article publications) in order to prepare and defend their theses. Usually, in these cases, post-graduation courses served to qualify the professors who already worked in universities. Until then, there were no policies regulating or guiding post-graduation programs. From 1945 to 1965, there was a significant increase of enrollments in graduate courses, which served as one more pillar to support the creation of educational policies appropriate for the reality of the country at the time⁶.

From the 1970s on, there was proliferation of post-graduation programs in Brazil and with it, aiming to qualify the faculty of universities, a large number of dissertations and theses was produced. However, considering that the main need was for qualification, research did not always keep up with the level of studies of that time in comparison to other countries⁶. After the institutionalization of post-graduation, external and internal factors were responsible for leveraging the growth of the scientific production in Brazil, either through exchange programs, which brought new ideas and research models or through policies, which aimed to develop postgraduation through documents for planning and goals to be reached.

Post-graduation assessment in Brazil has achieved great progress, especially over the last 20 years, with the implementation of standardized processes, the establishment of objective criteria, and the extensive promotion to the academic community.

The assessment process for post-graduation programs established by the Capes has highlighted the importance of analyzing the insertion of graduates in the labor market in order to observe whether they are using the knowledge acquired in their education to promote some benefit to society or eradicate problems through new ideas, leadership profiles, and new policies⁷, besides allowing to identify the contributions of the course to student training⁸.

Among the forms of assessing a postgraduation course, the monitoring of professional or academic activities of graduates has been highly valued. The insertion of graduates in the labor market is a major indicator for higher education managers to analyze the deficient areas and other areas with high contingent of professionals.

In this context, this study aimed to identify the professional and academic activities of graduates of a post-graduation program in the field of Dentistry in Collective Health.

2 METHOD

It is a descriptive research that collected data on the professional performance of former students from Postgraduate Program in the area of Preventive and Social Dentistry of the State University Júlio de Mesquita Filho, Campus of Araçatuba (FOA-UNESP), starting from the date of completion of their Masters and Doctorate courses.

We obtained the list of graduates of the program, since the first class, in the databases of the Post-Graduation Section of the Higher Education Institution, and analyzed the curricula of 91 graduates of Masters and/or Doctorate courses, from 1993 to 2015, which are available in the Lattes platform. Curricula that were not available in the platform were excluded (n=5).

The following variables were explored: geographic distribution, institution attended,

previous and current professional bond, academic performance in graduate and post-graduate courses, bibliographic production, and every and any occupation performed.

This study did not require the approval of the Research Ethics Committee because the personal data collected were extracted from the Brazilian Research Council (CNPq) platform, which access is available to the public.

3 RESULTS

The former students of the post-graduation program were mostly women (56.04%) and were distributed from North to South of Brazil (figure 1), occupying various positions, from high school teachers to leading positions in university departments.

Regarding the occupation of higher education professor, the graduates not only taught classes for graduate courses, but also for post-graduation courses, both stricto sensu and lato sensu; they also gave lectures or technical courses. As for the number of working professionals in higher education institutions, 45 graduates (52.33%) worked or had worked in private universities, while 53 (61.63%) worked or had worked as professors in public universities (table 1). Great diversity is noted among the subjects taught, as follows: Dental Ethics and Legislation, Professional Responsibility, Ergonomics and Biosafety, Course Completion Theses Adviser, Research Methods, Health Policies and Management, Introduction to Public Health, Supervised Internship, Professional Legislation and Service, Public Health I and II, Social Sciences, Dental Management Planning (Professional Adviser), Clinical Cariology, Supervised Internships, Dentistry in Public Health, Integration Seminars, Integrated Children's Clinic, Dentistry and Culture and Society, Introduction to Dentistry, Dentistry Exercise and Labor Rights, Social Responsibility

in Research and Education, among several others.

The activity of graduates in higher education institutions was not limited to education/research, as some of them were involved in university management, working as directors and coordinators of graduate and postgraduate courses, leading departments, among others.

Some of the graduates were involved in public healthcare (32.56%), in positions such as Health Coordinator, Network Dental Surgeon, Oral Health Secretary, and some of them even occupied positions in State Health Departments, participating in the development of health promotion strategies, creation of institutional material (protocols) and didactic material (booklets, manuals, books), and even involved in the training and humanization of Family Health Teams. Some of them participated in the implementation and coordination of public dental care in a few locations that did not have such service yet.

As for the scientific production, 53.49% of graduates published at least one full article in scientific journals after graduation; the study also found means of 5.82 articles published during the course and 14.01 after it (table 2).

4 DISCUSSION

The data obtained show that most graduates are women. This finding reinforces what other studies have also shown. A research on post-graduation in Education, by the Pontifical Catholic University of Campinas (Brazil), showed that 63% of graduates were women⁹. Another study on graduates of a post-graduation course in Medicine showed that 52.8% were women¹⁰. Saliba et al. (2002) found an increase in the number of women in Dentistry, which may also be associated with the fact that most graduates of the program were of the female gender¹¹.



Figure 1. Current distribution regarding the location of graduates, considering their respective institutional and employment bonds, among others.

Table 1. Number of graduates according to academic work, as well as in public healthcare, private offices or companies, publication of articles, insertion in post-graduate education, and adviser work, after their respective graduations.

Activity	N	%
Academic work	69	80.23
Public healthcare work	28	32.56
Dental office work	6	6.98
Articles published after graduation	46	53.49
Insertion in post-graduation	36	41.86
Adviser work	57	66.28

Table 2. Distribution of graduates according to the number of full articles published in journals during their Masters and Doctorate courses, and after finishing them.

Number of articles	During the course	After the course
0 to 5	51 (59.30%)	59 (68.61%)
6 to 12	24 (27.91%)	7 (8.14%)
12 to 20	8 (9.30%)	5 (5.81%)
> 20	3 (3.49%)	15 (17.44%)
Total	86 (100%)	86 (100%)

The great majority of graduates of the Postgraduate Program in the area of Preventive and Social Dentistry of the FOA-UNESP is working professionally, especially in academic careers, in the Southeast region, followed by the South. According to data of 2013 from the Ministry of Education and Culture, Brazil has 2365 higher education institutions, and 1157 of them are located in the Southeast region¹². This situation allows assuming that the search for states or regions with a high number of higher education institutions is greater by graduates intending to pursue an academic career and, considering a study on graduates showing that 80.6% of them seek careers in higher education, it evidences one more factor contributing for the Southeast region to keep this position regarding the number of such institutions. According to the Capes¹³, when observing the map of distribution of post-graduation programs (acknowledged by the institution itself) in Brazil, an asymmetry is perceived. The South and Southeast regions have the highest concentrations of programs, and the opposite occurs for North, Northeast, and Midwest regions. Thus, a graduate from a region or state with a not so significant number of higher institutions education or post-graduation programs may feel less motivated to return to their hometown after graduating. It was also noted that the great majority of graduates in the study finished their education in the Southeast region. Perhaps these are a few more reasons

contributing for the asymmetry of distribution of post-graduation programs to remain in force, thus representing a challenge to be reversed by both the Capes and government institutions related to education.

According to the Federal Council of Dentistry¹⁴, 73% of Dental Schools in Brazil are private¹⁴. It is also known to be more common for such institutions to hire Masters than public institutions, in which the selection process is more competitive, and therefore require higher academic levels and titles than the competition. Hence, it is assumed that a higher number of Masters and PhDs work academically in private institutions. The present study found that graduates of Postgraduate Program in the area of Preventive and Social Dentistry of the FOA-UNESP work or had worked more often in public universities.

As for the scientific production, 53.49% of graduates of the present study published at least one full article in scientific journals after graduation; the study also found means of 5.82 articles published during the course and 14.01 after it. This finding, however, does not necessarily mean that most graduates published a higher number of articles after finishing their courses and that this phenomenon represents a trend. The higher mean of studies published after graduation is because a small number of researchers produced a rather high number of articles after finishing the course. Waisberg and

Goff¹⁵ found in their study low indexes of articles published by graduates of the target program of their analysis¹⁵. The authors associate this fact with the lack of vocation students have for research. Another study showed low scientific production of graduates of a post-graduation program in Health Sciences¹⁶.

As shown in the results of this study, some graduates who followed an academic career occupy or had occupied positions in university management. In Masters and Doctorate courses, it is common for students to explore materials and jobs related to university administration, especially because they attend classes on the topic. In the post-graduation program that was the target of this study, one of the lines of research is precisely "Dentistry Teaching", hence creating, even before graduation, the notions on teaching methods, curriculum guidelines, and norms that rule higher education in Brazil. This finding proves that post-graduation may play an essential role in training professionals with management skills, and therefore, the efforts for improving this trend should be performed to prepare current students not only to teach and research but also to perform leading positions.

Working in different subjects in graduate and post-graduate courses shows the extent of the field and its adaptability potential. Additionally, the explanation found was that graduates continued their research in their new institutional bonds.

Public Health may be defined as a field under permanent construction and based on some principles such as intersectoriality and interdisciplinarity, requiring it to adapt to the local and current reality in order to obtain precise and necessary means to solve the public health problems present in a given population¹⁷. Also attributed to Public Health are the characteristics of being a scientific field associated with a variety of practices. Thus, professionals included

in this field should analyze their work environments and create proposals aiming to resolve the issues affecting the population. Masters and PhDs in Public Health have essential knowledge and qualifications that place them in an extremely important position in their work environments, because not only they have to arouse and encourage the primary bases and relevance of the field, both in the academic universe for students and in the public service for health professionals, but they also have to participate in the planning steps for public health practices.

The Postgraduate Program in the area of Preventive and Social Dentistry of the FOA-UNESP has several research and extension projects, and postgraduates have the opportunity to participate and plan related activities along with professors. In extension projects, the student is in direct contact with different population groups such as pregnant women, elderly people, and children, and actively participates in health education practices, knowing and respecting the particularities of each setting. As for research, post-graduates exercise their ability to find a problem in need of solution and, through observation and evidence, use their knowledge in order to create respective projects, always considering the current public health realities for the location, the psychosocial characteristics of the studied population, among others. This means that a dynamic understanding for the research is required to later offer benefits to the community. Some of the graduates of the program who work or have worked in public services either were managers or occupied leading positions.

The present study showed that a rather small portion of graduates worked in the private sector. Few of them work or had worked in companies. Public-private partnerships in the field of Public Health are rare, opposite to what

is seen in post-graduation courses in the field of exact sciences, in which a higher number of students performs internships in companies before graduating, which may already direct or facilitate their insertion in the field.

Bahry and Tolfo¹⁸ found in a research with employees of a banking organization, who were graduates from post-graduation stricto sensu courses offered by the bank, that their actions in the work environment were related to the learning and knowledge from the academic environment, as well as research techniques and methods, thus verifying that individuals learned something new by changing the way they act and work. Still regarding this research, it was noted that although graduates did not progress to an academic career, they used what was acquired during the course for their current administrative activities to solve problems or setbacks through procedures (method), observation, understanding of the situation, and analyses, thus developing and executing more complex activities and responsibilities.

A study by Silva, Gontijo, and Guerra¹⁰, in which one of the objectives was to compare academic and professional activities of graduates of a post-graduation course in Medicine before and after its initiation, showed a statistically significant increase of activities in higher offices, and higher education, education institutions. There was also an increase of graduates who published in Brazilian journals and book chapters; however, the scientific production remained in the range between 0.1 and 0.9 publications a year, both before and after the course had started¹⁰. This study evidenced the intentions of graduates when attending postgraduation, wherein 86.1% aimed at improving scientific methodology and 80.6% aimed at higher education careers. Regarding the subjects and the participation of professors and advisers, student perception was considered from good to

excellent.

In a study on the profile of graduates of the Masters Program in Health Sciences at the Federal University of Piauí (Brazil), it was verified that all students were satisfied at the end of the course and that most of them who qualified at that institution were higher education professors before graduating¹⁶. This topic makes room for a brief discussion. Some studies^{1,19} showed that a significant number of graduates were already working in higher education before starting post-graduation, and therefore sought qualification to further their academic careers. On the other hand, Waisberg and Goff found that Masters students who participated in their research had weak bonds with higher education¹⁵. Additionally, the average time between finishing a graduate course and starting a Masters course, at the time assessed in the study (1990 and 1997), has changed from four to two years over the time the research was performed²⁰, which shows an earlier search for either training or qualification. This phenomenon remains to this day, whereas incoming students are usually the ones who have just finished a graduate course and many of them already have some research or extension bond with the program or field selected. This situation may be a factor related to the potential differences in the profile of graduates from before and current ones, which makes room for the development of studies on the topic, thus providing a greater knowledge on the current situation of students from Brazilian post-graduation courses.

Obtaining data through the Lattes platform may be considered one of the limitations of this study. Although it allowed collecting the required information to develop the research, it did not allow addressing the subjective and personal aspects of graduates regarding their professional careers and experiences after graduating. Qualitative perspectives could be better explored through focal groups or the application of open and semi-open questionnaires. New research may be performed with the application of questionnaires and other qualitative research techniques.

The best way to assess the quality of postgraduation stricto sensu programs is through the knowledge and performance of graduated Masters and PhDs, and their ability to transfer knowledge to either change or improve the Brazilian reality¹⁷. Research in the field of education are an important way of producing new knowledge and technologies, leveraging the development of the reflexive and critical spirit in the academic training of individuals, forming our professors or professionals who will adapt their knowledge to their work environment²¹.

5 CONCLUSION

The former students of the Postgraduate Program in the area of Preventive and Social Dentistry of the FOA-UNESP are distributed in all macro-regions of Brazil, but the Southeast region concentrates most of them. A great portion of graduates works or has worked in the academic environment, performing educational activities graduate and post-graduate in programs, with prevalence of professional bonds with public higher education institutions. Public service work was also verified, showing the occupation of positions and duties in health coordination, healthcare networks, state and municipal departments, as well as the Ministry of Health.

RESUMO

As atividades profissionais dos egressos da Pós-Graduação em Odontologia na área de Saúde Coletiva

A pós-graduação *stricto sensu* no Brasil tem se consolidado cada vez mais. Nos últimos tempos,

várias estratégias têm sido implementadas com intuito de aprimorar o processo da avaliação de sua qualidade. Dentre os meios de se avaliar um curso de pós-graduação, o acompanhamento das atividades profissionais ou acadêmicas dos egressos tem sido muito valorizado. O objetivo deste trabalho foi conhecer as atividades profissionais e acadêmicas dos egressos titulados no Programa de Pós-Graduação na área de Odontologia em Saúde Coletiva da Universidade Estadual Júlio de Mesquita Filho, Campus de Araçatuba. Foram analisados os dados curriculares disponibilizados na plataforma Lattes de 91 egressos do programa, os quais estão distribuídos em todas as macrorregiões do Brasil, porém o Sudeste concentra a maior quantidade. Grande parte (80,23%) atua ou atuou no meio acadêmico, profissional com vínculo predominante em universidades públicas. A atuação nos serviços públicos de saúde também foi frequente (32,56%), com ocupações de cargos em coordenadorias de saúde, rede de assistência à saúde, secretarias municipais e estaduais de saúde, assim como no Ministério da Saúde.

Descritores: Educação de Pós-Graduação em Odontologia. Saúde Pública. Avaliação.

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Correspondência para: Prof. Dr. Orlando Saliba e-mail: osaliba@foa.unesp.br

Programa de Pós-Graduação em Odontologia Preventiva e Social

Rua José Bonifácio, 1193.

Vila Mendonça 16015-050 - Araçatuba/SP