Experience of teaching-service-community integration in the teacher training in Dentistry

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ABSTRACT

Training professors who are able to promote teaching based on the Brazilian National Curricular Guidelines is essential in Dentistry. This study aimed at reporting training experiences in the teaching internship for post-graduation students in Collective Health Dentistry in a Brazilian university with teaching-service-community integration by the critical reflection method. The activities were developed in the Community Interaction axis, at the health centers in the Municipal Health Secretariat (Secretaria Municipal de Saúde - SMS) and in the extension project “Promotion of Health in the School Community of Colégio de Aplicação at UFSC”. Pedagogical practices with graduating students, professors, SMS preceptors and post-graduating students included meetings with teams, users and health councils, inter-sectoral activities, community integration, expanded clinic, oral health promotion, with critical-reflective discussions to signify the process of work in oral health. In the extension program, partnerships were developed with the University Department of Dentistry, SMS and the Parents and Teachers Association, inter-disciplinary meetings among the extension students, post-graduation students, and school professors; educating activities with active teaching-learning methodologies (Metodologias Ativas de Ensino-Aprendizagem - MAEA); use of the Dental Treatment Needs Index; activities for the prevention and clinical care for school children. Pedagogical learning was obtained with content including epidemiology, health care, health education, planning, management and evaluation, social control, and transversal learnings. The internship in the community and teaching-research-extension context favored the bonds and the MAEA, emphasizing the potential of the training space for the future professor in Collective Health Dentistry, which is capable of promoting a more harmonious training to the professional profile sought by the dental surgeon.

Descriptors: Graduate Dental Education. Public Health Dentistry. Primary Health Care. Teaching-Care Integration Services.

1 INTRODUCTION

Professor training is a growing concern in Dentistry, especially due to the need to incorporate political, social and pedagogical elements in its practice so as to transcend the instrumental and technical model so hegemonic within the Brazilian context. Aiming at overcoming this hegemonic model, it can be stated that the historical centrality
of the country’s social-political redemocratization and Sanitary Reform movements culminated in legal landmarks such as the creation of the Single Health Systems (SUS), the Law of National Educational Bases and Guidelines (LDB), and the National Curricular Guidelines (DCN) in the health area2,3. It is also important to emphasize the relevance of the articulations between the Health and Education Ministries, fostering the teaching-service-community integration through its re-orienting policies in health training4.

While the undergraduate courses in Brazil are ruled by the DCN, the post-graduation courses are not subject to similar guidelines, resulting in a structure instituted by regulating documents issued by the Coordination for the Improvement of Higher Education Personnel (CAPES) within the scope of each knowledge area1,5,6. As set forth by CAPES, the locus of this training is constituted in the master and academic doctorate courses. Therefore, post-graduation courses are responsible for training professors for higher education, and thus it must be able to articulate the different curriculum components in that process, within the indissolubleness among teaching, research and extension2,7.

The teaching internship has been the space for the development of technical-pedagogical skills, theoretical-practical knowledge, and a mandatory activity for master and academic doctorate course scholarships. Despite its importance, there are few publications in literature dedicated to the topic within Dentistry, especially when compared to areas such as nursing, collective health, and other inter-disciplinary areas5,8,9,10. In the case of Collective Health Dentistry, this internship has its main lead in the teaching-service-community integration for a more self-sufficient teaching training in post-graduation. Through collective work, it expands the critical-reflective capacity, creating a powerful means to form future dental surgeons, as well as workers, managers, and mainly, future professors, by transforming them into articulators of that integration11.

This paper has the purpose of reporting the training experiences of four post-graduation students in Dentistry (PPGO) in a University in Brazil in the Collective Health Dentistry concentration area from the teaching-service-community integration experiences under professor supervision. The internships took place in the pedagogical axis referred to as Community Interaction, and include activities in three undergraduate disciplines, as well as in an extension project developed within the Single Health System (SUS).

2 EXPERIENCE REPORT

This article is a report on the experiences developed through the critical reflection method. Through re-examining and re-evaluating the experiences, beliefs, and knowledges, it seeks to exploit new perspectives so as to incorporate the situationality of the research process and the founding reflexivity of the critical perspectives12,13.

The teaching internship complied with the institutional regulation that defines it is compulsory for scholarship students, with the minimum duration of one semester for the master’s degree course and of two semesters for the doctorate course14, held between 2016 and 2018. In a complementary manner, the post-graduating students involved in this study participated in other internship and extension activities in SUS, under professor supervision, during their master and doctorate courses. All of them attended the undergraduate course within the context of the DCN3, had experience in primary health care, and therefore, had sufficient background for their experiences in post-graduation.

The activities were developed within the scope of the Community Interaction, as established in the political-pedagogical project of the
Graduation in Dentistry Course of the Brazilian university as the key element in the training interdisciplinary axis and were developed from the first to the eighth semester in sequential disciplines, with the students, preceptors and preceptor units, and professors as subjects of the teaching-learning process\(^{15}\).

At the family health centers, the participants were able to develop pedagogical practices with the undergraduate students and have the active participation of the professors of the discipline and of preceptors of the Municipal Health Secretariat (SMS). By promoting reflective discussions and the problematization of cases with the students, the post-graduating students were able to integrate theoretical and practical aspects of the teaching-learning processes from what is defined as “action-reflection-action”\(^ {16}\), thus building bonds with the students and the health network. The teaching internship already presents several challenges to the professor in training, which are potentialized within the context of the community interaction by the relationships that are established among the different actors involved and the skills each one adds to the process. The post-graduating student has the constant mission of creating conditions and spaces to allow the exchange of knowledges and skills for working in teams, in the wealth of practical demonstrations, and in ways of applying or even adapting what has been learned.

By participating in planning meetings with the Family Health and Expanded Family Health Core teams, and in the Local and Municipal Health Councils, the students develop key elements in the training in primary care. In order to foster a broad understanding of the work processes, activities were performed in several sectors, such as welcoming, pharmaceutical care, medicine care, nursing, and regulation sector.

The integration with the communities could also be observed in the participation of undergraduate and post-graduation students in groups gathering health center users, such as those focusing on smoking cessation; in the participation in the Family Party at schools; and in the development of health promotion activities with children and teenagers in school communities.

As professors in training, the authors reflect on all the integrations held during the internships: with other professors, with the community, with other health professionals, managers and dental surgeons who collaborate in the construction of the “professor being”. The exchanging of experiences in the community context requires that the professor in training take a stand of observation and pro-activity, working in teams, applying techniques and content in a critical-reflective making, capable of aligning the different interests of the players involved in a teaching-learning process qualifying their own doing. After all, becoming a professor to teach Dentistry in SUS and for SUS requires a rupture with technicality and the values of market dentistry and the search for ways to contribute with the preparation of future dental surgeons to face the challenges of the practice in real SUS contexts, which would be hardly understood within the classroom, whether they are virtual or conventional.

Clinical learning was included both in the scope of the health centers and of schools. The service provided in the dental practices by the undergraduate students involved the offering of care in the expanded clinic perspective; in the school environment, on the other hand, it included activities focusing on preventing oral diseases and atraumatic restorative treatment. For the post-graduating student, that was both a moment for overseeing the clinical activities and a moment to problematize the technical content in the light of the assumptions of the APS. Those experiences had the support of the preceptors and under direct supervision of the professor, fostered by critical-reflective discussions so as to reassign the clinical process in oral health, both for the undergraduate
students as future generalist professionals and for the post-graduating students while professors in training. During the teaching-learning process in the clinical activity within the context and assumptions of the SUS, it was necessary to have a set of MAEA dynamics and methodologies in order to promote the understanding of the work process considering the key challenges in planning, execution, and evaluation of the oral health care. In this process of amalgamating the contents of Dentistry and Collective Oral Health in a real context, the post-graduating students needed to develop the capacity of being flexible and open to changes through the analysis of their own being as professors in the making.

In addition to the experiences in the Community Interaction internships, there was also the participation in the extension project referred to as “Promotion of Health in the School Community of the Colégio de Aplicação at UFSC”. The project had partnerships with the Department of Dentistry at the University, the Municipal Health Secretariat and the Parents and Teachers Association of the Application College.

With the purpose of making the undergraduate and post-graduating students familiarized with the history of the project, as well as with the school community, inter-disciplinary meetings were held between the members of the extension project and the teachers at the college twice a year. That space was used to discuss the main demands, as well as the potentiality of the extension project, resulting in the establishment of a work schedule. After the meetings, the topics that required a joint approach were defined, namely the expanded concept of health, healthy eating, hygiene habits, and sustainability.

In order to provide a bond with the school community and align the objectives of the project with the curricular components of Collective Health Dentistry, the oral health education activities were worked together with teachers in the school, within the MAEA perspective. In this way, the professor in training, together with the undergraduate student, built a practice in oral health education that differed from the traditional transfer of knowledge with lectures in classroom, going beyond with interactive activities, such as gymkhanas, scientific experiences, and gamification.

A database was created from the Dental Treatment Needs Index (Indice de Necessidade de Tratamento Odontológico - INTO), which allowed the encouragement of the graduating students to learn about the management of dental practices, the planning of actions and how to proceed with the management of the necessary inputs. The database also generated data that subsidized the scientific production through the presentation of papers and publication of abstracts in scientific events, in the production of papers related to the practices, developing in the post-graduate students the skills related to the advisor activity.

The different work scenarios during the internships brought great challenges and learnings inherent to the teaching being to the post-graduating students. The teaching-service-community integration is a powerful tool in the building of a teaching experience by allowing the exploitation of different work dynamics in diverse spaces. It invites the future professor to use MAEA with their undergraduate and post-graduate students with the community, fostering criticism, reflection, and the meaning of learning in oral health. It also allows to straighten the bonds and to create commitment with the students; it brings renewal to the post-graduating students and the health teams, since there is always the need for updates, new ideas, new generations of care within the same community.

Chart 1 lists the contents developed during the teaching internship, the activities and the learnings provided by the experience.
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Chart 1. Contents, activities, competences developed, and pedagogical elements worked during the experience in the teaching internships

<table>
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<tr>
<th>CONTENTS</th>
<th>ACTIVITIES</th>
<th>COMPETENCES DEVELOPED</th>
<th>PEDAGOGICAL ELEMENT</th>
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<td>Dental Treatment Needs Index in schoolchildren</td>
<td>Distribution of oral diseases in the community; calibration; management of the clinic; risk classification; and organization of oral health care.</td>
<td>Guidance in the several situations in oral health practices with the relationship between clinic and epidemiology.</td>
</tr>
<tr>
<td>Education in health</td>
<td>Wearing of hands; science fair (fluoride and formation of biofilm); reading of labels; amount of sugar in industrialized food; supervised toothbrushing; playful activities (gymkhana physical activities, quiz); family party; oral health care groups for families of children with special needs.</td>
<td>Foundations of education in health by life cycle; inter-sensoriality of health.</td>
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</tr>
<tr>
<td>Health care</td>
<td>Dental clinical care (diagnosis, prevention, and rehabilitation) by life cycle; a-traumatic restorative treatment in schoolchildren.</td>
<td>Diagnosis and planning; performing of clinical procedures; preventive, surgical and restorative techniques.</td>
<td>Promotion of student autonomy: feedback and clinical evaluation; management of the relationship between the students, users, professors, and preceptors.</td>
</tr>
<tr>
<td>Planning, management, evaluation</td>
<td>Territorialization; analysis of the health situation; participation in area, team, teacher, and school director meetings; evaluation of the effectiveness of the education actions in health in the community; inventory control; biosecurity; reference and counter-reference measures.</td>
<td>Co-responsibility for the planning and execution of the activities.</td>
<td>Articulation of the teaching with the territory, management in macro and micro levels, students, and professors; use of information systems.</td>
</tr>
<tr>
<td>Social control</td>
<td>Participation in Health Councils, health conferences, in community and parents and teacher associations.</td>
<td>Council setting; registration of legal documents; understanding the role of entities in the representation, articulation, and inspection of health processes.</td>
<td>Problematization from the reality; “hidden curriculum” and the conflicts of interests, ethical, social, economic, and political dilemmas; inter-sectoral work in health education.</td>
</tr>
<tr>
<td>Transversal learnings</td>
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3 DISCUSSION

As established by the latest National Post-Graduation Plan from CAPES, the stricto sensu post-graduation course is the final stage of formal education and has its academic nature aimed at the training of researchers and professors. As such, it is inextricably linked to the other levels of training.

Therefore, when considering what to expect from professor training in Dentistry, it is essential to also understand the expectations for the professional profile: generalist, humanistic, ethical, technical-scientific, inter-professional, inter- and trans-disciplinary, proactive, entrepreneurial, leadership, communicative, with critical and reflective thinking, respecting human dignity and the individual and collective needs, and consistency before social, cultural, economic and environmental policies. Such training is the result of a complex historical, social and cultural process of the national health context, and as challenging as it is the training of professors so they are able to promote it in its integrity.

The methodological choices of the higher education professor tend to reflect the way they perceive teaching. After all, every education process, whether it is pragmatic or existentialist, realist, or idealist, is based on judgment of values that establish relationships between means and ends of that process, due to the axiological, epistemological, and teleological character. The axiology is related to the values assigned to the training process; teleology is related to the purpose of such process; epistemology refers to the actual possibility of building knowledge in the area. For each of these three elements, the internship experience corroborated for a training aimed at SUS in its purpose, but whose means originate from the very principles of APS.

If the purpose of the dentistry teaching is that of forming dental surgeons with the aforementioned profile, and the purpose of the stricto sensu post-graduation course is to train researchers and professors, it can be deducted that the changes that favor the expansion of the learning forms beyond the transfer of contents are essential, setting up new scenarios for such processes. The profile of the future Dentistry professors cannot be built in disharmony with what is expected for the dentistry teaching itself.

In the teaching internship, students in the master and doctorate degree can experience pedagogical and methodological practices that allow them to actively build a body of essential knowledges as a future higher education professor. In other words, the internship allows the subject to perceive the teaching-learning processes in the duality of the student’s perspective, while post-graduating students, and in the professor’s perspective while an intern. In this sense, the experiences reported herein indicate a magnanimity of teaching-learning processes allowed by the teaching internship.

Among such learnings, the role identified in MAEA can be emphasized, which represent a change in the posture of passive and receiving student to a perception of the student as a historical subject, who actively builds knowledge from experiences, knowledges and opinions. Thus, they are capable of meeting the need of propelling the creative capacity of the student appointed in the Freire pedagogy by demanding that the future professor acts as a facilitator in the building of the work processes of the graduating students with oral health topics in the communities beyond the traditional models of explanatory lectures and supervised toothbrushing, as well as signifying the professional practice and the care in a critical and reflective manner in each of these learnings.

In this sense, the teaching internship allowed the development of coherent pedagogical practices with an education in health aimed at care and that takes into consideration...
the social determiners of health, the needs of the population, the local epidemiological profiles, and the insertion of the student in the scenarios of the community realities26.

The supervising professor is one of the responsible for providing learning experiences during the internships that are truly significant and transformative in the professional practices. Therefore, the pedagogical actions are fundamental to ensure professional training that is able to meet the needs of SUS9, in the exchange among the different subjects of teaching and learning in health27.

Such exchange depends on effective teaching-service-community integration that, despite the advances, faces difficulties such as the resistance of professionals towards the insertion of the student in the service, whether by the fear of loss to the work process, whether by insecurity, or by the need of conditions for the work of an educator in the work environment28. As much as the post-graduating student takes over the role of the student, the lived experience indicates they can also be a facilitator among the graduating students and health professionals, corroborating for the articulation of teaching with the service and the community.

Within the context of collective health, the importance of such integration cannot be underestimated. Student experiences in health services allow, through the relationship with others, the understanding of experiences and realities as a social, transformative, and critical being, and provide opportunity to reflect and learn by doing, by transforming the student into the subject of the action in learning, which becomes pivotal for the professional training in health to be congruent with the demands and needs of SUS29.

The teaching-service-community integration emanates as a source to overcome the alleged dichotomy subsisting between theory and practice. By inserting teaching in services, it allows the problematization of the work process through collaboration, with the purpose of overcoming obstacles and establishing reflective practices. Nevertheless, in order to achieve such objective, it is also necessary that the service be more than just a simple location for practice; one must have a glimpse of the transformation of the health care processes30 to be able to ensure the materialization of the training during internships that allow decision-making in singular learning environments in the sense of professional growth within the perspective of the competences and skills as set forth in the DCN31.

One has in the extension programs the concreteness of the “extended” concept from the classroom, that goes beyond the traditional physical space, so as to comprise all the other ones where the historical-social process takes place, which includes multi-, inter- and trans-disciplinary content, as a demand arising from the practice itself. The post-graduating student, future professor, when being exposed to those several teaching scenarios, is challenged to take over a new role in the professor-student duality, boosting their skills related to relationships, emotional behavior, leadership, decision making, administration, management, and the use of MAEA, within other competences also inherent to teaching32.

In this manner, it is important to foster the valuing of practices in collective oral health, from the onset of the academic path, not only in the undergraduate courses, but also in post-graduation ones, to contribute in the training of professionals solving important limitations in their capacity of analyzing context and of collaboratively working in teams19.

It is also important to emphasize that the training of the professor in Collective Health, as well as the undergraduate internship, must seek to expand the students’ experiences beyond the
competences inherent to the researcher-dentist; it must include pedagogical and practical competences in the work process of a health team working in SUS, that is, the organization, planning, and management of services, and its interaction through inter-professional practical activities, with the teaching-service-community integration being a powerful tool.

By understanding the professional training in health as a project not limited to the technical-scientific character, there is space for an integration of domains such as teaching with student protagonism; the decentralized, strategic, and sectoral management in a technopolitical mode; integral and integrated health care; and social control through the participation of the population. The teaching internship experienced within the community interaction favored the development of pedagogical-assistance actions that permeated those axles of Collective Health Dentistry, as well as other transversal learnings that are important for the formation of the post-graduating student as a professor, researcher, and manager.

The training of dental surgeons under this perspective puts a high demand on the university professor, who must act as a professional who works for the society, requiring a reflective, critical and competent act, one who must explain feelings, meanings and contributes in the formation path of students, it is not rare that in stricto sensu post-graduation courses, the consolidation of the knowledges of the education practice fades into the background in favor of research and the specific knowledges of the area.

Within this logic, the power and social prestige arise from the specific field and not from pedagogical knowledges. The challenge proposed to the post-graduation programs is to be capable of breaking the model that only awards competence in research in the specific training field to being able to also include the dimensions of teaching and extension, as well as expanding in a coherent and consequent manner the relationship between teaching and research.

3 FINAL CONSIDERATIONS

The experience of four post-graduating students in their teaching internship within SUS reported herein allowed the identification, through a critical reflective analysis, the importance of the teaching practice exercise under the perspective of the teaching-service-community integration in the qualification of future professors and, especially in this case, of dentistry professors in collective health.

The experience of the professor-student relationship within the internship and extension project context allowed the post-graduating students to become closer to the undergraduate students, favoring bonds and fostering MAEA. The future professor had the role of promoting forms to encourage, motivate and commit students towards their training.

The power of the insertion in the community could be observed by allowing the extrapolation of the service and health care centers based on the work with bonds and the promotion of reflections. Among such reflections, the following was emphasized: what type of Dentistry in Collective Health professor does one intend to train?

The teaching-service-community integration and research-teaching-extension context was considered essential to the teaching training, especially when considering the principles of SUS and the need for teaching-learning processes that are capable of qualifying and promoting a more harmonious training with the professional profile aimed for the Brazilian dental surgeons.

The experiences reported herein, developed in SUS and based on the teaching-
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service-community integration as well as in the teaching-research-extension indissolubleness, have shown the teaching internship as a valuable training space for the post-graduating students.

RESUMO
Experiência de integração ensino-serviço-comunidade na formação docente em Odontologia
Formar docentes aptos à promoção do ensino preconizado pelas Diretrizes Curriculares Nacionais é fundamental na Odontologia. Este estudo objetivou relatar experiências formativas no estágio docente de alunos de Pós-Graduação em Odontologia, na área de Odontologia em Saúde Coletiva, de uma universidade brasileira, com integração ensino-serviço-comunidade, pelo método da reflexão crítica. As atividades foram conduzidas no eixo da Interação Comunitária, junto a centros de saúde da Secretaria Municipal de Saúde (SMS), e no projeto de extensão “Promoção de Saúde na Comunidade Escolar do Colégio de Aplicação da UFSC”. As práticas pedagógicas com graduandos, docentes, preceptores da SMS e pós-graduandos envolveram reuniões de equipes, usuários e conselhos de saúde, atividades intersetoriais, integração comunitária, clínica ampliada, promoção da saúde bucal, com discussões crítico-reflexivas para significar o processo de trabalho em saúde bucal. Na extensão, realizaram-se parcerias com o Departamento de Odontologia da Universidade, a SMS e a Associação de Pais e Professor; reuniões interdisciplinares entre extensionistas, pós-graduandos e professores do colégio; atividades educacionais com metodologias ativas de ensino-aprendizagem (MAEA); emprego do Índice de Necessidades de Tratamento Odontológico; atividades de prevenção e atendimento clínico aos escolares. Houve aprendizagem pedagógica com conteúdos de epidemiologia, atenção à saúde, educação em saúde, planejamento, gestão e avaliação, controle social e aprendizados transversais. O estágio docente no contexto comunitário e de ensino-pesquisa-extensão favoreceu vínculos e as MAEA mostraram a potência do espaço formador para o futuro docente de Odontologia em Saúde Coletiva, capaz de promover uma formação mais harmônica ao perfil profissional almejado ao cirurgião-dentista.


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