Pedagogical training of Dentistry professors

Edla Carvalho Lima Porto, Aline de Matos Villas Boas, Letícia Loyanna Pimentel da Silva

ABSTRACT

Brazilian higher education, at first, used to consist of individuals with professional success who were invited to compose the faculty since they would teach with their scientific and practical knowledge. However, time and changes were imposed by the new Law of Guidelines and Bases of National Education required modifications, especially about the need for qualifying the didactic-pedagogical training of professors, and this was no different in Dentistry. This paper aims to contextualize through research in the literature of the last ten years how professors have been prepared to teach Dentistry. The graduate programs still have some barriers, such as the preparation dedicated only to research or clinical practice, sidelining didactic education. General adequacy is required for the workload and the quality of didactic-pedagogical teaching and the knowledge and use of currently available technological tools.

Keywords: Faculty training. Higher education. Dentistry.

How to cite this document – ABNT

Received on: 14/09/2020
Accepted on: 18/02/2021
Published on: 29/05/2021

The authors were responsible for translating this article into English.

Centro Universitário UniFTC, Feira de Santana, BA, Brasil.
ORCID ID: https://orcid.org/0000-0003-1664-6511. E-mail: eporto.fsa@ftc.edu.br

Centro Universitário UniFTC, Feira de Santana, BA, Brasil.
ORCID ID: https://orcid.org/0000-0001-8402-1244. E-mail: avilasboas.fsa@ftc.edu.br

Centro Universitário UniFTC, Feira de Santana, BA, Brasil.
ORCID ID: https://orcid.org/0000-0002-5154-4353. E-mail: leehloyanna@gmail.com
Formación pedagógica de profesores de Odontología

RESUMEN

Inicialmente, el plantel de profesores de la educación superior brasileña era formado por profesionales invitados de acuerdo con su éxito profesional. De este modo, se suponía que ellos podrían enseñar, por sus conocimientos científicos y prácticos. Con el paso del tiempo y los cambios impuestos por la nueva “Ley de Directrices y Bases da Educación Nacional” fue necesario que se produjeran cambios, especialmente en lo que se refiere a la necesidad de una formación didáctica-pedagógica de los docentes para que ellos fueran más calificados para enseñar y en la odontología no fue diferente. El objetivo de este trabajo fue contextualizar como está sucediendo la formación del futuro profesor de odontología, a través de una búsqueda en la literatura de los últimos 10 años. Los cursos de posgrados aún presentan algunos obstáculos, como la preparación del docente ser principalmente direccionada para la investigación o la práctica clínica, dejando la formación didáctica en un segundo plano. De esta forma, es necesario un ajuste en general, no solo en la carga laboral y en la calidad de la enseñanza didáctica-pedagógica, sino también en el conocimiento y uso de las herramientas tecnológicas presentes en la actualidad.


A formação pedagógica dos docentes de Odontologia

RESUMO

O ensino superior brasileiro inicialmente se formava por sujeitos com sucesso profissional, convidados a compor o quadro de docentes, já que estariam aptos a ensinar com o conhecimento científico e prático que possuíam. Com o passar do tempo e as mudanças impostas pela nova Lei de Diretrizes e Bases da Educação Nacional, transformações precisaram acontecer, principalmente em relação à necessidade de a formação didático-pedagógica dos docentes ser mais qualificada, e na área da odontologia não foi diferente. O objetivo deste trabalho foi contextualizar, por meio de uma busca na literatura dos últimos 10 anos, como vem acontecendo a formação do futuro docente da odontologia. Os cursos de pós-graduação apresentam ainda alguns entraves, como a preparação do docente essencialmente para a pesquisa ou para prática clínica, deixando em segundo plano a formação didática. Uma adequação de uma maneira geral se faz necessária, não apenas na carga horária e na qualidade do ensino didático-pedagógico, mas também no conhecimento e uso das ferramentas tecnológicas presentes na atualidade.

INTRODUCTION

The teaching staff of Brazilian universities initially consisted of professors who were good professionals; that is, those who exercised their professional activity with quality were considered capable of transmitting their theoretical and practical concepts. Thus, these professionals were invited to teach classes without any previous preparation to be a teacher since university education was not equipped with formal mechanisms for pedagogical training, characterizing teachers as specialists in their area of knowledge (CARVALHO, A. 2001; FERENC, 2005).

The 1968 University Reform gave rise to the national graduate policy, which aimed to contribute to the articulation and development of research and its faculty members’ training to raise the standard of academic quality. Subsequently, this proposal also led to the formulation and implementation of scientific initiation programs in collaboration with development agencies (CHAMLIAN, 2003; MARTINS, 2009).

A challenge arose with the requirements of the Law of Guidelines and Bases of National Education (LDB) (BRASIL, 1996), which required from education institutions at least one-third of teachers with masters and doctoral degrees among its faculty members (ROZENDO et al., 1999). With the new requirements for evaluating the quality of undergraduate courses, in the case of the undergraduate course in Dentistry, which has a large number of stricto sensu graduate programs in the country, it is necessary to have at least between 50% and 75% of the faculty members with degrees obtained in such programs and at least between 20% and 35% of faculty with a doctorate in order to be considered a teaching of excellence.

By requiring a percentage of masters and doctoral degrees, the pedagogical training of teachers in the courses was expected to become a differential factor. However, this was not observed since graduate courses offered and still offer insufficient pedagogical content for teacher training (MORITA et al., 2018).

Thus, the lack of concern regarding the training of future teachers without mastering the educational and pedagogical field, even from a philosophical and technological viewpoint, persists mainly because these training sessions are primarily geared to research. Thus, it favors only training centered on specialized techniques and perpetuates the idea that those who know how to do it, that is, those who know how to act in practice, also know how to teach (MENEGAZ et al., 2015; NORO et al., 2015; ROZENDO et al., 1999).

Academia demands publications, as these scientific productions contribute to a better evaluation of universities and their programs, and thus institutions receive more financial incentives. As a result, they end up sidelining teacher training because, while professional
experience is essential, it is not enough for the performance of the bachelor as a teacher (BARROS; DIAS, 2016; CARVALHO, A. 2001; SECCO, 2004).

It was no different in Dentistry. According to Franco et al. (2009), a new teacher profile was and is necessary since the student profile has also changed. It became crucial that teachers understand the time and society of their students, understanding their values, language, and the technology they use to better contribute to their professional training, and no longer be mere transmitters of Dentistry techniques.

No efforts were made to prepare these faculty members to be teachers, in the pedagogical sense, with training to awaken and stimulate critical thinking in their students. Thus, a change in teacher training is required, with strategies and methods accompanied by a continuous reflection on their actions (LAZZARI et al., 2015; ROZENDO et al., 1999).

This literature search was carried out from February to June 2020 on the Virtual Health Library (BVS) portal and the Scientific Electronic Library Online (SciELO) and PubMed databases, through Health Sciences Descriptors (DeCS) teacher training, higher education, and Dentistry.

We included works published in the last ten years, available in full and free of charge, whose abstracts were read and those linked to the proposed theme selected. Duplicated articles were excluded. After reading, we validated the literature with solid theoretical bases and that detailed the subject of the study in question, which aims to contextualize the pedagogical training of Dentistry teachers in Brazil.

LITERATURE REVIEW

University teacher training in Brazil

Pedagogical practice and education are the expressions of men’s struggle seeking humanization and freedom, becoming aware of their condition, in a concrete and socially constructed reality, which needs to be overcome. Thus, it is necessary to meet the pedagogical aspects oriented to freedom, assuming a critical, reflective educational process focused on social and political responsibility.

This practice should not be treated as a fixed and unilateral action, limiting actions and separating those who teach from those who learn. Instead, it should unfold in an integrative, mutual, creative way, open to dialogue and knowledge exchange (NORO et al., 2015; ROZENDO et al., 1999).

In the early days, higher education teachers became professors simply because they knew how to do their job well, so they were invited to teach. Teaching was supported by
Pedagogical training of Dentistry professors
Edla Carvalho Lima Porto, Aline de Matos Villas Boas, Letícia Loyanna Pimentel da Silva

professional practice, developed in parallel with teaching, and initial training was just the desire to be a teacher. Didactic training would not be necessary since students are already considered "adults" for having faced an arduous selection to enter the university and are motivated to be professional. Thus, they would be prepared to learn on their own (LAZZARI et al., 2015; ROZENDO et al., 1999).

Over time, the strengthening of information technologies, the dissemination of mass media, and changes in the labor market occurred, which generated university teaching training demands, with a need to expand it beyond a specific area of knowledge, traversing information, technology, political, and pedagogical domains. Thus, it is crucial to promote the conscious formation of a globalized, complex, and contradictive society through educational action (BALTAZAR; MOYSÉS; BASTOS, 2010; CUNHA, L. 2007).

It is crucial and necessary to train university professors specifically for their teaching activities. There is a growing concern about the lack of spaces and training methods that are typical of and comply with the approach to specific subjects of higher education teaching. It is vital to organize within the institutions themselves training places that promote teacher learning (BOLZAN; POWACZUK, 2017).

The traditional university pedagogical model with lectures and assessments has been studied for a long time, when it was already observed that little use was made of information technology means and resources to transmit and disseminate knowledge (BIREAUD, 1995).

The 1968 University Reform established the inseparability of education and research for the development of the Brazilian university, making professors also researchers. Thus, graduate courses at masters and doctorate levels were disciplined to exercise two functions: education and research, which explains the mandatory offer of courses that prepare students for both activities, such as the Supervised Internship, which attempted to meet the need for pedagogical activities (CHAMLIAN, 2003).

University education underwent several changes to reach the current model since the LDB of 1996, followed by the one promoted by the Ministry of Education in 1997, seeking to reform the curriculum of higher education institutions. A new professional profile was proposed later (FRANCO et al., 2009) with the implementation of the National Curriculum Guidelines (DCN) around 2001 (LEMOS, 2005). As a result, the Brazilian Society for the Advancement of Science (SBPC), the National Council for Scientific and Technological Development (CNPq), and the Coordination for the Improvement of Higher Education Personnel (CAPES) were created from this concern with the technical-scientific training of teachers (ROSEMBERG, 2002).
Training of university professors in the Dentistry course

We should highlight that a significant challenge for higher education teaching concerns the possibility of linking two didactic actions: teaching and learning. Dentistry course professors teach from the experience of professional practice, taking teaching in a parallel and secondary way. However, those who master the practice in their professional life cannot continuously transmit the content in the best way. Thus, if teaching is part of professionals’ field of work, didactics and pedagogy should also be part of their training framework besides the theoretical and practical knowledge in their field (ALTHAUS, 2004; FERENC, 2005, LAZZARI et al., 2015).

Dentistry also had its National Curriculum Guideline for Undergraduate Dentistry Courses (BRASIL, 2002), seeking a humanist and comprehensive profile. However, although the Ministry of Education and the Ministry of Health started a dialogue to move together, Education and Health demands do not always converge, which often hinders the development of an enabling environment for the proper progress of the two sectors (FRANCO et al., 2009).

Graduate courses began to emerge with the labor market changes and increasingly competitive society. Pressure on teachers begins, and when entering the university environment, they become involved in a tripod founded on education, research, and extension (FERENC, 2005; NORO et al., 2015).

In this sense, a new labor market field was created for most professions: research development. Brazil supported this field, and professionals got involved as much as possible, as they improved their qualification, leveraging their institution and the financial resources it receives. This context modifies teachers’ profiles, making them teachers-researchers who articulate theory and practice reflexively (CHAMLIAN, 2003; FERENC, 2005; LAZZARI et al., 2015).

As in other areas, Dentistry has also followed this path, generating growth of the university environment and demands for obtaining financial incentives. Thus, universities and graduate courses focused on training researchers instead of teachers and the nature of didactics (FERENC, 2005).

Undergraduate courses, including Dentistry, function more as a professionalization, as training in techniques and transmitting market news concerning materials and instruments instead of constructing reflective knowledge. Consequently, a professional class disconnected from the social reality of the country emerges, with technical rationality, individualized and elitist practices, fragmented in the rationale of specialties and a chaotic
oral health standard, even with a large and qualified workforce (BRUSTOLIN et al., 2006, LAZZARI et al., 2015; LEMOS, 2005).

Unlike what is recommended for primary and secondary education, the absence of an educational policy and courses to train higher education teachers has historically deteriorated the situation of pedagogical training for these professionals (LAZZARI et al., 2015). The true and complete training, including the didactic-pedagogical dyad, has not yet been achieved to allow teachers to respond to the main innovations in their area and not stay distant from contemporary pedagogical approaches, thus enabling the student’s role in its formative process (FERENC, 2005; NORO et al., 2015).

The discussion on Brazilian health and the role of professionals in the field and, consequently, of those who train them, the teachers, expanded with the establishment of the Ministry of Health in 1953. The Brazilian Association of Dental Education (Abeno) was created in 1956 to promote excellence in training in Dentistry in order to improve the training of these professionals, implementing a scholarship system by CAPES, promoting internships in Brazilian and foreign universities, improving the level of faculty (MENEZES; LORETO, 2006).

Teacher education still needs to be rethought despite these attempts to improve teaching and, consequently, learning, since the current CAPES assessment model aims the market’s interest under the rationale of efficiency and productivity, with the development of research and technology from a technicist perspective (CARVALHO, R. et al., 2010).

Above all, teachers must reflect the specific and technical knowledge of their profession and be knowledgeable about the pedagogical aspects. After all, teaching is not and cannot be interpreted as a simple activity, which everyone with a bachelor’s degree can exercise, in which the technique and mastery of specific knowledge are unique and sufficient for the quality of the pedagogical practice.

However, what is observed in the Lattes curriculum of the teachers is vast specific knowledge in some field of their profession and lack of knowledge or interest in the pedagogical and didactic issue, with no identification of the teacher with their profession, who appears only as a dentist and not as a professor and dentist (FRANCO et al., 2009; LAZZARI et al., 2015).

Professorship, which is the teacher’s construction process, is developed by individuals through their activities, adopting means and procedures that allow the appropriation of specific knowledge in the teaching work from the networks of relationships woven in the individual professional contexts of each teaching activity. Entering teaching is a walk through the affective, cultural, political-social, and academic experiences throughout the training
trajectory. It directly influences the conduct and action of the teaching profession, linking the existence of an individual or a particular human community and teaching, which is a subjective practice. Teachers have previous experience, reflecting their social context, with emotions, personality, culture, thoughts, and actions (BOLZAN; POWACZUK, 2017).

The university professor’s identity is formed from the moment he recognizes his role in higher education and society, understanding the institution’s functioning. Professional development occurs in spaces of autonomy, as teachers put into practice what they learned from their teachers, identifying and reproducing assertive (or not) pedagogical practices, behaviors, and choices, and creating and composing their practices, performing the interference of values that are being absorbed through the experiences, thus establishing the professional teacher’s profile (FERENC, 2005; LAZZARI et al., 2015).

The being-a-teacher construction space is linked to the enthusiasm for teaching, that is, the impulse and desire to commit to learning the teacher’s role. Three stages are perceived in the elaboration of professorship: the professional educator’s understanding of the function to be exercised; the definition of actions and operations necessary to perform this task and, in the third stage, the ability to self-regulate their professional activity, reformulating strategies from self-assessment, becoming a self-reflective and critical teacher (BOLZAN; ISAIA, 2006; BOLZAN; POWACZUK, 2017).

Given all the changes in the education setting, such as the LDB, the DCNs, the National Curriculum Guidelines for Undergraduate Dentistry Courses, the National Policy on Continuing Education, the multiplier and facilitator courses, the Pró-Saúde, Distance Learning (EaD), the Open University of the Unified Health System (UNA-SUS), the University for All Program (PROUNI) and the Restructuring and Expansion of Federal Universities (REUNI), professors become one of the main actors to transform the Brazilian reality.

Therefore, there is a greater demand for dedication and commitment, which comes down to the need for at least 60% to 70% of the workload of teachers to take place outside the classroom, meeting the difficulties of students and dealing with their diversities, working in the production of materials and content, participating in the collegiate and all necessary guidance (FRANCO et al., 2009; MORITA et al., 2018).

The LDB highlights that higher education teacher training takes place at the graduate level. However, 60 or 90 workload hours in a subject are insufficient for teacher pedagogical training (SILVEIRA, 2004). University professors should transcend the mastery of just specific knowledge of their field to take ownership of pedagogical concepts, building their identity as teaching professionals (ANASTASIOU, 2006).
Pedagogical training of Dentistry professors

Edla Carvalho Lima Porto, Aline de Matos Villas Boas, Letícia Loyanna Pimentel da Silva

A significant challenge to be highlighted in higher education, for example, is the mastery of technology tools applied to teaching, from the regulation of distance education by the LDB (1996), especially for teachers with teaching seniority. Therefore, there is a need to change the teacher’s role from being a mere transmitter of knowledge to a planner, organizer of innovations, and learning mediator.

The importance of teacher education is scientific and didactic-pedagogical, understanding the microsocial aspects and realizing the social nature manifested by this work. The teacher must be a transforming subject of the reality of the population involved, including students in this context and promoting the formation of thinking, critical, reflective, active, and socially close beings and professionals, breaking with traditional models with collective practices to recover the essential part of care and interpersonal relationships (CARVALHO, R. et al., 2010; LAZZARI et al., 2015).

Professional experiences are still required. According to the document issued by Abeno (MORITA et al., 2018), at least 50% to 60% of teachers should have three-year professional experience, as in the case of teaching experience, where the same percentage of professionals with teaching experience for more than three years is required.

Students’ mistakes and failures are not only their sole responsibility. Now, other variables are incorporated, among them the system, the institution, and the teacher. Thus, teachers should participate in different training programs that promote changes in their teaching practices and transform the existing guidelines (FINKELSTEIN, 2018).

Another point that is also worth emphasizing is the lack of communication between fellow professors in sharing knowledge. Moments when they expose themselves to their peers, highlighting their strengths and weaknesses, are rare. It is not customary to attend peers’ classes, expressing own difficulties and limitations, and there may be learning and growth with the opinion of other teachers. Beginning teachers rarely find the support of more experienced ones, and they may even be exposed to face the most difficult challenges and activities on their own, since those seen as veterans no longer want them for themselves, making clear another context that also needs to be rethought and reformulated (CUNHA, M.; ALVES, 2019).

DISCUSSION

One of the first points and perhaps the most important among the difficulties in teacher training is combining pedagogical teaching and scientific studies in graduate courses (masters and doctorate). After all, as already reported, attention is always focused on research due to financial incentives to the institution. It is crucial to support and encourage science, but the syllabus to teach teaching and train teachers must be intensified and equal
Pedagogical training of Dentistry professors
Edla Carvalho Lima Porto, Aline de Matos Villas Boas, Leticia Loyanna Pimentel da Silva

or even superior to that directed to research to achieve effective and productive training (SILVEIRA, 2004; BARROS; DIAS, 2016).

From this same perspective, the expansion of pedagogical education is valid for teacher training, as it will not limit them to a dentist with a specialty but will train a professional dentist and teacher. This requires knowledge and willingness, experiences and practices in the field, and a good technological mastery — another factor that increasingly deserves special attention (CARVALHO, R. et al., 2010; LAZZARI et al., 2015).

Technology has been increasingly interconnected with education, especially with the advancement of distance learning. Thus, it should be part of the programmatic content of teacher training. Whether by expanding the course workload, so that this topic can be covered or through extra training and updates provided by higher education institutions, which aim to guide, teach, and update new technological tools to improve teaching, the ease with the globalized world, and proximity to students, making teachers transforming, innovative, and learning mediators (FRANCO et al., 2009; NORO et al., 2015).

FINAL CONSIDERATIONS

Higher education is facing a challenge, including Dentistry, training professionals committed to ethics and citizenship, critical, reflective, and human, concerned with changing social problems.

At first, an improvement in initial training should be sought, reformulating the curriculum of stricto sensu courses, bringing a greater pedagogical approach to teacher training, until then restricted to the Pedagogy undergraduate course, with disciplines that add value to the driving process of transmitting the content.

Learning is continuous, and like every individual, teachers must also adapt to novelty, based on lifelong education, mainly Dentistry professors, so that they are equipped with the theoretical-practical and didactic-pedagogical foundations, and, thus, can always dialogue with current technologies. Thus, a change in the teachers’ profile can be generated, making them capable of mediating the formation of a future professional dentist more humanized and engaged in transforming the reality.
Pedagogical training of Dentistry professors
Edla Carvalho Lima Porto, Aline de Matos Villas Boas, Letícia Loyanna Pimentel da Silva

REFERENCES


BRUSTOLIN, Jacson; BRUSTOLIN, Juliana; TOASSI, Romana Fernanda Ceriotti; KUHNEN, Mirian. Perfil do acadêmico de Odontologia da Universidade do Planalto Catarinense – Lages –
Pedagogical training of Dentistry professors

Edla Carvalho Lima Porto, Aline de Matos Villas Boas, Letícia Loyanna Pimentel da Silva


**Edla Carvalho Lima Porto**  
edlaclporto@gmail.com

**Aline de Matos Villas Boas**  
avilasboas.fsa@ftc.edu.br
Letícia Loyanna Pimentel da Silva

Ensino médio concluído em 2016, com premiações em olimpíadas. Discente do curso de Odontologia no Centro Universitário UniFTC – Feira de Santana/BA. Bolsista do CNPq por iniciação científica, participante de liga acadêmica (LACIT – Feira de Santana), grupo de estudos com objetivo de produção de artigos científicos, um desses publicado como capítulo de livro em um *e-book*.

leehloyanna@gmail.com