Training in Dentistry under the view of integration teaching, service and community: an experience report

Técia Mendes Daltro Borges*; Lydia de Brito Santos*; Nélia Medeiros Sampaio**; Ana Áurea Aleccio Rodrigues***

* Full Professor, Dentistry Course, Department of Health, Universidade Estadual de Feira de Santana
** Professor, Dentistry Course, Department of Health, Universidade Estadual de Feira de Santana
*** Adjunct Professor, Dentistry Course, Department of Health, Universidade Estadual de Feira de Santana

Received: 06/20/2021. Approved: 11/16/2021.

ABSTRACT
This study refers to a report on the experience in the Internships that occur in an articulated way between the university, the health service, and the community of the Dentistry course at the State University of Feira de Santana (Bahia, Brazil), after ten years of implementation of the new curriculum obeying the National Curriculum Guidelines. As the result, there was a significant social commitment and criticality of the students about the application of theoretical and practical content, acquired during graduation, as well as the approximation of these with other professionals of the Family Health Team and the search for meet society's needs for transformation and improvement. For the pedagogical objectives to be fully achieved, the relevance is highlighted, not only of teacher training and the existence of a curricular matrix of the course structured on the concept of comprehensiveness but also of student awareness, dialogue with preceptors, and the active participation of all the protagonists in the internships, collaborating and providing feedback to the teaching-service-community integration.

Descriptors: Education, Dental. Learning. Teaching Care Integration Services.

1 INTRODUCTION
There was a time when training professionals to work in the health area was limited to offering courses designed based on the logic of training and updating human resources. The idea was to train skills to meet an established curriculum based on a concept of health disconnected from the real needs of the users and, consequently, from the training needs of professionals. However, in the current moment, it allows for a new understanding of health education, with unlimited possibilities to invent and disseminate educational technologies in sector1.

As in other health professions, training in Dentistry has undergone significant changes, not
only due to the National Curriculum Guidelines (DCN) but also to oral health policies, changes in the practice of the profession, and new positions in jobs for professionals, especially in Health Care Networks. There is an expectation of changing towards a more qualified training, focused on practice, to approach the subjects, families, and the community within their socioeconomic and cultural context, respecting values, habits, and behavior.

The DCN for the Undergraduate Course in Dentistry was established by the Ministry of Education of Brazil/National Council of Education, together with the Chamber of Higher Education, through Resolution CNE/CES no. 3 of February 19, 2002, to organize the undergraduate curriculum in Dentistry of Higher Education Institutions (HEIs), nationwide.

These guidelines seek to ensure the training of professionals with autonomy and insight to ensure comprehensive care, quality, and humanization of care provided to individuals, families, and the community.

The most current version of the DCN for Dentistry (Resolution n. 03 of 06/21/21) confirms the inclusion of the student in the SUS service networks throughout the undergraduate course, allowing the student to know and experience health policies in situations life, organization of professional practice, and the work of the interprofessional team. In addition, there are the mandatory curricular internships, understood as supervised educational acts, performed in work environments. These activities must be directly related to general and specific professional competencies which should be developed, with a view to the social, human, and scientific formation of the graduating, preparing them for the professional work of Dentistry in society, in an articulated manner and with increasing complexity throughout the training process.

The Ministry of Health of Brazil proposes that the training of health professionals should be associated with the epidemiological reality of the population, with the National Health Policy and the National Oral Health Policy. Therefore, it is necessary to link this Ministry with the Ministry of Education and the training institutions. The National Program for the Reorientation of Professional Training in Health (Pró-Saúde) and the Education for Work Program (PET-Saúde) have been made efforts through integrated teaching to the public service, seek to respond to the needs of the Brazilian population when training human resources.

It is noteworthy that the functionality of professional training processes, causing interaction between the student and the social reality in which health problems arise, rests on three pillars: academia, health services, and the community.

The Dentistry Course at the State University of Feira de Santana (UEFS) is relatively new with 35 years of foundation. It has essentially innovative characteristics since its creation. However, after the national DCNs, it underwent a process of curriculum reformulation, agreed among its peers, which structured it into four areas of knowledge: Biological and Health Sciences, Human and Social Sciences, Public Health, and Dental Sciences.

This new curricular format was implemented in 2011, the subjects were categorized into Integrated Studies, Internships in Public Health, Internships in Collective Oral Health, and Internships in Integrated Dental Clinic.

Thus, this article aims to report the experience of internships in Collective Health, Collective Oral Health, and Integrated Dental Clinic (ECOi) that occur in an articulated way between university, health service, and...
community and an increasing complexity from the second to the tenth semester of the Dentistry Course at the State University of Feira de Santana (Bahia, Brazil), after the implementation of the new curriculum.

2 EXPERIENCE REPORT

This report has a descriptive character and presents as a scenario the practices of Mandatory Curricular Internships in the undergraduate course in Dentistry at UEFS, after the implementation of the new curriculum in 2011. The dentistry course offers a 32-semester place and requires a minimum of 10 semesters to complete.

Mandatory Internships are provided for in the Course's Pedagogical Project as a requirement for obtaining a diploma, have a defined minimum workload (20% of the total curriculum), and are regulated by specific resolution, in compliance with the determinations of Brazilian legislation.

The experiences will be reported from the teaching and student experience in the practices. As well as through data collection in institutional documents, which describe the activities carried out each semester. Also, how the activities were performed analyzing integrity and what would be the pedagogical assessment tools used for monitoring the students. It was also sought to identify, in the evaluative records, the main changes that occurred in the training of undergraduates who performed these internships.

To encourage the student in a transdisciplinary team and promote citizen community practices, from the second semester, the student participates in experiential internships and performs activities in a Health Unit with the Family Health Strategy (ESF) working in a neighborhood of the city. Each class that enters the university practices the internships sequentially, always in the same neighborhood/community until the last semester.

Based on knowledge of the local community through the territorialization process and workshops with the health team and community leaders, are planned promotion and prevention actions and carried out at individual and collective levels. And the referral of identified cases that needs rehabilitation and cure for the institution's dental clinics when the Health Unit does not have the resources. The students at the internship at the community carry out the service themselves.

The internship curriculum components and their respective activities throughout the semesters, which developed in increasing complexity, will be described below.

Internships in Public Health and Public Oral Health

The curricular components in Collective Health and Collective Oral Health start in the first semester and last until the last semester of the course (Chart 1).

The curricular component of Public Health takes place in the first semester and is theoretical and practical. The concepts of health, quality of life, National Health Policy, Family Health Strategy, characterization of Health and Health Surveillance problems, the role of citizenship in professional practice, and transdisciplinary teamwork are discussed.

In the second semester, in the Public Health Internship (ESC), the class of students is divided into two or three groups, respecting the ratio of 10 students/teacher. For each group is selected a Family Health Unit (USF), which will remain until the conclusion of the undergraduate course, strengthening the bond with the community and transdisciplinary teamwork. In this component, the first visits to the USF are carried out, for the knowledge of the work team and the beginning of the territorialization
process, with the recognition of the static and dynamic territory of the area covered by this Unit, identifying the most prevalent pathologies/disorders in the local population. During the stay at the USF, the students do home visits with the Community Health Agents, workshops with the ESF, and health education actions in the community are initiated (health fairs, theater plays, folder creation, waiting room activities).


<table>
<thead>
<tr>
<th>Curriculum Components</th>
<th>Weekly Workload</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collective Health in Dentistry</td>
<td>3 (theoretical-practical)</td>
<td>first</td>
</tr>
<tr>
<td>Supervised Internship in Collective Health</td>
<td>4</td>
<td>second</td>
</tr>
<tr>
<td>Collective Oral Health</td>
<td>3 (theoretical-practical)</td>
<td>third</td>
</tr>
<tr>
<td>Internship in Collective Oral Health I</td>
<td>4</td>
<td>fourth</td>
</tr>
<tr>
<td>Internship in Collective Oral Health II</td>
<td>4</td>
<td>fifth</td>
</tr>
<tr>
<td>Internship in Collective Oral Health III</td>
<td>2</td>
<td>tenth</td>
</tr>
</tbody>
</table>

In the curricular component of Collective Oral Health, in the following semester, a theoretical discussion on the problems of Collective Oral Health, on epidemiological surveys in Oral Health in Brazil, and on the National Oral Health Policy is sought. The epidemiological indicators of Oral Health that will be used in subsequent semesters and the practical exercise of these indicators are also addressed.

In Internships in Collective Oral Health (ESBC) I and II, which happen respectively in the fourth and fifth semesters, the students and the Family Health Team perform epidemiological surveys on oral health following the methodology used by the Ministry of Health of Brazil with the aim of learning and contributing to the local knowledge of health teams. They also carry out health actions with population groups. As of the fifth semester, individuals with the highest priority for care are referred to Internships in the Integrated Dental Clinic at the University.

In the Internship in Collective Oral Health III, which happen in the tenth semester, workshops are performed with the health team for the construction of Local Health Planning, training of community health workers on oral health care, activities that discuss local social control and the work process at the USF, as well as visits to the Regional Health Center and the Center for Dental Specialties.

The evaluation in the stages described above is procedural. Students individually report the activities performed off-campus in a field diary where they must describe the activity and place themselves as the subject of the action, presenting their impressions, criticisms, and suggestions. There is also a critical analysis of the workshops and health education activities, through a dialogue discussion in group conversations with all the participants. At the end
of each semester, the students prepare a final report with an oral and written presentation to the community, the health team, and a copy sent to the Municipal Health Department, the managing body of the Health Units.

With the activities developed, the students demonstrated a reflection on the problems that Basic Health Units face every day and how they deal with them, understanding more and more about the SUS universe and its performance.

The Internship in Collective Oral Health provided students with a unique experience where everyone achieved an excellent practice to be a more humanized dentistry professional in the future, with significant knowledge of the Unified Health System in Brazil.

The dynamics of the health unit and dental care were possible to experience. The community lacks information and needs dental services was perceived. Resources for dental care are limited, making it possible to perform only basic procedures. The population needs to be more assisted by the health system.

The documents produced point out the importance of internships as a unique experience as they allow reflection on the problems faced by Basic Health Units, the SUS universe, the lack of assistance and information by the community, and the need to be a more humanized professional in the area of Dentistry.

**Internships in Integrated Dental Clinic (ECOI)**

Current movements indicate a progressive trend towards anticipating integrated clinics, with increasing complexity, involving the student, since the early years, in the integral view of the patient. From the sixth to the tenth semester, the bond with the community is maintained through the ECOI (Chart 2), where health practices in the community are carried out concurrently with outpatient clinical activities. Health education activities are carried out both in the Family Health Units and in the university's outpatient clinics, and updating workshops for the oral health team continue to be developed.

The assistance to the patients referred from the USF to the UEFS dentistry clinic begins at ECOI I. In the following semester, at ECOI II, besides this assistance at the university, the students start to perform clinical service at the USF and participate in their routine activities. At this point, the dentists who work in the health team act as preceptors, further strengthening ties with the community.

It is worth emphasizing the importance of Public Health as an area of knowledge that cuts across all phases of the course, including the ECOI, aiming to enhance humanized practice, focused on comprehensive care. The professors, who work in this fieldwork, plan the activity at the USF, guiding oral health promotion and prevention actions, organizing the screening of patients for outpatient care, and mediating the relationship between the university and the Public Health Service, as well as with preceptors and community.

In the outpatient practice, there is one professor from each specialty, described in table 2. In each ECOI, the student can carry out integrated planning and procedures whose technique was taught in subjects of the previous semester. As the course progresses, the complexity of ECOI increases as a result of integrated studies carried out in theoretical, laboratory, and clinical curricular components. Complexity is growing at each ECOI, not only in the sense of adding a specialty every semester but within each specialty, more complex procedures need to be performed.
Chart 2. Internships in Integrated Dental Clinic of the Dentistry Course at UEFS, Feira de Santana/BA, 2021

<table>
<thead>
<tr>
<th>Internship</th>
<th>Weekly Workload</th>
<th>Semester</th>
<th>Specialties</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECOI 1</td>
<td>4</td>
<td>Sixth</td>
<td>Dentistry, Periodontics and Collective Oral Health</td>
</tr>
<tr>
<td>ECOI 2</td>
<td>4</td>
<td>seventh</td>
<td>Dentistry, Periodontics, Endodontics and Collective Oral Health</td>
</tr>
<tr>
<td>ECOI 3</td>
<td>8</td>
<td>eighth</td>
<td>Dentistry, Periodontics, Endodontics, Prosthodontics and Collective Oral Health</td>
</tr>
<tr>
<td>ECOI 4</td>
<td>8</td>
<td>ninth</td>
<td>Dentistry, Periodontics, Endodontics, Prosthodontics, Surgery and Collective Oral Health</td>
</tr>
<tr>
<td>ECOI 5</td>
<td>16</td>
<td>tenth</td>
<td>Dentistry, Periodontics, Endodontics, Prosthodontics, Surgery, Pediatric Dentistry and Collective Oral Health</td>
</tr>
</tbody>
</table>

At the beginning of the semester, the students and professors do a screening of the patients and the clinical cases with the specificity of complexity appropriate to each subject. The collective oral health professor contributes to this screening by bringing patients from the neighborhoods where each class began their experience and observation activities since the first semester. In addition, spontaneous demand patients and patients from previous semesters who did not complete the treatment or transferred to the next ECOI, are also included in the screening.

After distributing the patients among the students, who see two patients per shift in pairs, the students perform clinical and complementary examinations on their patients and prepare a treatment plan with integrated guidance from professors from different specialties at each stage. Two weeks after the beginning of the internships, with the screenings and complete examinations carried out, the students present the treatment plans in a seminar in collective discussion with colleagues and professors. It is a significant time for learning, reflection, and evaluation. Treatments may start in the internship after the seminar.

At the end of the semester, each pair presents a report of a clinical case of their choice for discussion among colleagues and professors in a seminar. It represents a semester closing of the activities carried out in the internship clinic, with a focus on resolution, comprehensiveness of service, and sharing of knowledge and experiences developed.

Each day of service, the students present a work plan, which consists of the material used, a description of the technique to be performed, based on prior guidance from the professors, and the theoretical study of the student. In addition, in the end, the student is assessed through an assessment instrument by the professor who accompanied him.

The work plans of each student, as well as their daily assessment worksheets, make up a portfolio, teaching tool, and assessment of the
student's clinical activities. The use of portfolios in internships in Integrated Dental Clinic has been settled as a strategic way of rethinking and innovating undergraduate teaching. Below are some excerpts from recent evaluative research:

“A dynamic instrument built according to the demands of the clinic; enables self-assessment of the student and evaluation of the student’s evolution throughout the semester” (Internship professor).

“It is an innovative, interactive, reflective instrument built throughout the semester through the interaction between professors and students” (Internship professor).

“Very good. It identifies where the student needs to improve” (ECOI Student).

At each clinic shift, an activity is carried out in the waiting room by a pair of students according to the scale and themes previously chosen between the professor of Public Oral Health and the classes. This activity lasts from ten to fifteen minutes and proposes a brief interactive lecture on health education for individuals in the waiting room of the internship dental clinic. Knowledge, language, creativity, didactic material produced, and the time used by the pair of students in each activity are evaluated.

In addition to the practical activities carried out in dental clinics in an outpatient format with professors from the respective specialties of the ECOIs, students take turns in pairs at the USFs under the supervision of the dentist of the unit. In the role of a tutor, the dentist monitors student attendance and activity in this scenario of public service in the neighborhoods.

At the end of the semester, the students present a report of this internship activity at the USF service, describing its advances and challenges, signaling needs, and discussing possible reflections on the experience. The students indicate, in the reports produced, that the experience with the community adds significant knowledge to their professional training by uniting theory with practice, within the reality of work in public health, in addition to allowing a humanized look and concern with the construction of a Unified Health System focus on the population.

Thus, given all the internship subjects and how they are linked, an integrated curriculum is pedagogically built, with increasing complexity (figure 1).

3 DISCUSSION

The need to review and reformulate the Dentistry curriculum at UEFS mainly sought greater curricular flexibility and brought training closer to the practice in the SUS, to positively impact professional health practices and, consequently, the health of Brazilians, not being restricted only to the legal issue of the DCN, as pointed out by Fonseca (2012)10.

It is essential to understand better the educational processes developed in undergraduate courses in dentistry, in the current health scenario in Brazil, and to permanently rethink the construction/reconstruction of curriculum, as changes in legislation are not enough to change training11,12.

For Zilbovicius (2007)13, the need to transform dental education imposes changes in political-pedagogical projects. It must be built collectively with the various actors involved in the educational process, creation of training spaces for dentistry teachers, and expansion of the integration of SUS with educational institutions. In this way, adopt the integrity of the health/disease process as a transversal curricular axis.
In this sense, it was a collegiate and agreed decision that the collective health knowledge area was distributed across the reformulated curriculum, in all stages developed from the first to the last semester, to strengthen the integration with the service and the community and, in this way, transform the profile of the dental course graduate.

The incentives for consolidating the partnership between universities and health services must be maintained and expanded. To favor professional training in Dentistry in the broadest aspect of health and bring benefits to health services. Therefore, there is a clear need for regulation that is coherent with the internship legislation and that considers the articulation of teaching with the SUS14-1714-17.

In addition to the indispensable technical competence, it is expected that the training process awakens in the student values related to the expanded concept of health, health care, comprehensiveness of care, ethics, inseparability between theory and practice, interprofessional and interdisciplinary work, humanization of care and recognition the social character of the health-disease process. Also, the understanding of the management of health services, to drive the transformation of the reality of the community that receives dental care17-20.

Collective Health, linked with the assumptions of health reform, may be considered a field of knowledge that involves a set of technical, scientific, cultural, ideological, political, and economic practices, which take social health needs as their object, with working instruments from different types of knowledge, disciplines, material and non-material technologies, whose interventions are focus on
social groups and the environment\textsuperscript{21}.

A relevant aspect for the dialogue of the field of collective health with the form of the SUS, with its ideological principles, is related to the process of training health professionals to understand the historical constitution of the struggles, limits, and contradictions of knowledge and practices, engendered in the operation of the health system\textsuperscript{22}.

The new didactic-pedagogical model must contemplate the balance between technical excellence and social relevance, moving away from teacher-centered teaching to active learning in multiple scenarios. It is up to the teacher, the role of facilitator of the knowledge construction process. Teaching practices must be developed, effectively and efficiently, in Basic Health Units, in the community, and at home, to allow the student to have a better knowledge of the population that will be served\textsuperscript{4}.

However, it is necessary to point out that for the pedagogical objectives to be fully achieved, it is important that in addition to teacher training and the existence of a course curriculum structured from the concept of comprehensiveness, there is also the awareness of students, the dialogue with the preceptors and, at the same time, a good relationship between the Teaching and Service Institutions. In this sense, the coordination of the University's Internship activities has a fundamental role to implement and manage these issues.

In addition, it is necessary to pay attention to the disputes and the different interests at stake that make up the health care model in daily practice, reflecting professional training.

In the health network, contradictory projects compete, one of universal and comprehensive public health and the other, liberal-privatize with professional-centered practice. Oral health is part of this conflicting scenario\textsuperscript{23}.

The supervised curricular internship is committed to exploring the student's abilities as an instrument for technical-scientific improvement. In this way, the experiences in various scenarios and social contexts provide them with a critical, responsible, and aware sense of the importance of health promotion and comprehensive and humanized care\textsuperscript{24}.

During the internships (Tables 1 and 2), in addition to the experience in the social context, a strengthening point is the division of students into groups, a few students per teacher, and the use of evaluative strategies where the active participation of all the protagonists in the internships, providing feedback for the teaching-service-community integration.

The creation of subjects that integrate the different areas, providing learning in increasing complexity, with the realization of internships outside the university campus and that consolidate the teaching-service and community triad was the great challenge in this curriculum reformulation.

Within this context, the teacher's relationship and the role become that of mediating the student's teaching-learning process. Thus, when the university walls are broken and expand the learning scenarios, other important actors emerge in the development of skills and competencies: health network workers, health service managers, and the community\textsuperscript{2}.

In our experience, the preceptors are the link in the unification of practices at the USF and the community. Thus, it is essential to good communication between these professionals and the management of internships, the family health team, professors, and students. So that the planned activities take place continuously and meet the outlined objectives.

The health service preceptor performs pedagogical work in the work environment, taking on several roles: plan, control, guide,
stimulate reasoning and an active posture, analyze performance, advise and take care of professional and personal growth, observe and evaluate the student when performing their activities, acts in moral formation. The importance of the preceptor as an educator is significant, as it offers the learner environments that allow him to build and rebuild knowledge. The approach of the university to the internship preceptor in Dentistry must be understood as a necessary condition for the teaching-service-community integration.

As the form of evaluation of the teaching-learning process, it was also necessary to use a procedural form and self-assessment tools to empower the student to understand their insertion in the internship practice. Thus, individual field diaries, reports, conversation circles, group educational activities, and portfolios brought more transparency to the process and have allowed for joint work between teacher-students. The excerpts transcribed in the previous topic make clear the space for dialogue that these evaluation instruments have made possible.

Thus, the portfolio encourages students to collect their reflections and impressions about the subject, opinions, questions, difficulties, reactions to the contents and texts studied, teaching techniques, feelings, and situations experienced in interpersonal relationships, offering subsidies for his assessment, that of the educator, that of contents and teaching-learning methodologies, as well as to estimate the impact of the subject itself.

4 FINAL CONSIDERATIONS
In these ten years of the current curriculum, there was significant social commitment and criticality of students about the application of theoretical-practical content that was acquired during graduation, seeking action strategies, and coping with health problems at the level individual and collective.

Also, the approach of students with other professionals of the Family Health Team, the break with the isolated work of the dentist, and the search to meet the needs of transformation and improvement of society were noticed.

Living with the community throughout the course allowed for the strengthening of the bond and awakened them to the importance of dental treatment to the socio-economic-cultural reality of the individual.

The results noticed so far solidify the proposal of the internships in a curricular matrix structured from the concept of integrality and refer to the challenge of sensitizing students, teachers, tutors, and users, with the active participation of all protagonists. It collaborates and provides feedback for the teaching-service-community integration for the daily construction of the SUS.

RESUMO
Formação em Odontologia sob o olhar da integração ensino, serviço e comunidade: um relato de experiência
Este estudo se refere a um relato sobre a experiência vivenciada nos Estágios que ocorrem de forma articulada entre universidade, serviço de saúde e comunidade do curso de Odontologia da Universidade Estadual de Feira de Santana (Bahia, Brasil), após dez anos de implantação do novo currículo obedecendo às Diretrizes Curriculares Nacionais. Quanto aos resultados, observou-se um maior comprometimento social e criticidade dos discentes em relação à aplicação do conteúdo teórico-prático, adquirido ao longo da graduação, bem como a aproximação destes com os outros profissionais da Equipe de Saúde da Família e a busca em atender às necessidades de transformação e melhorias da sociedade. Para que os objetivos pedagógicos sejam plenamente alcançados, destaca-se a relevância, não só da capacitação docente e da existência de uma matriz curricular do curso estruturada a partir do conceito de integralidade, como também da
sensibilização dos estudantes, da interlocução com os preceptores e da participação ativa de todos os protagonistas nos estágios, colaborando e retroalimentando a integração ensino-serviço-comunidade.

**Descritores:** Educação em Odontologia. Aprendizagem. Serviços de Integração Docente-Assistencial.

**REFERENCES**


experiência em estágio curricular acadêmico e Residência Multiprofissional. Rev. ABENO. 2017; 17(4):144-52.

Correspondence to:
Técia Mendes Daltro Borges
e-mail: tmdborges@uefs.br
Rua Mazagão, 390 - Casa 21 D
44056-380 Feira de Santana/BA Brazil