EXPERIENCE REPORT

ACTIVITIES PERFORMED BY DENTAL STUDENTS AT A NURSERY SCHOOL DURING THEIR SUPERVISED TRAINING PROGRAM

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ABSTRACT
The National Curricular Guidelines (NCGs) for undergraduate dental courses establish conceptual, philosophical and methodological elements in different practical scenarios aiming at changing the professional educational process through the development of competences and skills. As a result, professional training activities should be performed throughout the entire undergraduate course. The aim of this study was to report on activities performed during the Community Health Care Supervised Training Program at a nursery school by dental students from State University of Maringá. Students from the 3rd year were responsible for performing supervised toothbrushing, developing recreational-educational activities with the pupils, and providing oral health training to parents, caregivers and members of the Family Health Strategy (FHS) team; while students in the 4th year performed atraumatic restorative treatment (ATR) and, whenever necessary, applied sealant material to pupils' teeth. Undergraduates interacted directly with children, parents, teachers and the ESF team. By applying theory to their practice, students gained experience in teamwork. The six general competences and skills required by the NCGs for the health area courses were developed. The activities developed with the pupils demonstrated the importance of establishing a relationship based on a multi-professional, interdisciplinary and holistic approach for the promotion of health in the community.

Keywords: Oral Health. Health Promotion. Children.

INTRODUCTION

We live in a constantly changing world, and society increasingly needs professionals who are not only qualified, dynamic and possess a solid scientific base, but also have the flexibility to work throughout their professional careers without being out of touch with the social transformations taking place around them. Due to these complex social demands and the increased access to information, it is essential that health professionals not only receive a solid education in their respective areas, but are also adequately trained in more specific skills and attitudes.

The production of scientific dental knowledge in Brazil has advanced at a speed and degree of complexity and technology comparable to those seen in international research centers of excellence. This improved production is a demonstration of the scientific maturity achieved by this country over the past years. Nevertheless, despite this increased scientific production and the amount of public resources allocated, little investment has been made to tackle the basic health needs of the population at higher social risk.

This study was based on the principles expressed in the National Curricular Guidelines (NCGs) for Undergraduate Dental Courses, published in the Resolution CNE/CES Nº 3, of 19/02/2002, which establishes the philosophical and methodological concepts that should be used as reference for change in the dental education practice. These guidelines are...
based on the development of competences and skills required by all health professionals, and suggest a new outline for the circular structure in force, clearly indicating the necessity to restructure undergraduate courses. Thus, professional training activities in different practical scenarios, performed in real community settings, are paramount. As far as oral health is concerned, educational programs must reinforce the concept of sharing responsibilities, so that no individual may think of oral health care exclusively as an isolated event, performed only when more complex procedures are necessary. Integrated to the health care network, educational and preventive actions can significantly and positively impact populations in high social risk areas with procedures which demand low complexity and can be performed at a low cost.

The overall objective of the Dental course at State University of Maringá (UEM) is to form dental surgeons with a generalist, humanist, critical and reflexive profile, who will be able to work at all levels of oral health care, based on technical and scientific excellence. Furthermore, in conformity with the NCGs, these professionals must also be trained to provide oral health care based on ethical and legal principles, and on the understanding of the social, cultural and economic reality of their setting, directing their effort to the transformation of reality for the benefit of society as a whole.

The Community Health Supervised Training Program aims at providing the appropriate conditions for the development of the professional profile of dental students. Therefore, the aim of this study was to report on the experience gained with a supervised training program performed at the nursery school “Lar-Escola Bom Samaritano” by dental students in their 3rd and 4th years.

METHODOLOGY

Study Setting

The nursery school “Lar-Escola Bom Samaritano”, located in Maringá - PR, was chosen to participate in the training program because it is situated in a high social risk area with pressing health needs. At present, the school is attended by 154 children aged between 0 to 6 years. Pupils are distributed in the following fashion: Babies (4 months to one and a half years), Toddlers (one and a half to three years), Nursery (three to four years), Preschool I (four to five years), Mixed Preschool (four to five and a half years) and Preschool II (five to six years). Children are supervised by a total of 21 caregivers (teachers, attendants, helpers, director, supervisor and coordinator).

Training activities started after authorizations from the Secretary of Education of the municipality of Maringá and from the school’s head teacher were duly obtained. All the children that underwent clinical exams and/or curative procedures were formally authorized by their parents or guardians, who signed and informed consent.

Activities performed by the 3rd year dental students

Third-year dental students were divided into four groups. Each group was responsible for following a group of children over the training period, who performed the following activities:

- Supervised toothbrushing – monthly (in the first fortnight of the month): conducted with pupils in their respective groups, involving toothbrushing technique demonstrations using macromodels and dental biofilm disclosing agents;
- Oral health-related recreational-educational activities – monthly (in the second fortnight of the month): puppet shows, musical parodies, games, picture cutting and coloring. The strategies and the recreational-educational material used were developed by the undergraduates themselves, according to the age-range of the children under the guidance of the professor responsible for the program. Each group was responsible for developing different activities containing the following:
  a) Stories related to the activity that would have to be developed, and told to the children before starting the activity;
  b) Didactical material (paper, puppets, posters, pictures to color in); and
  c) A manual describing in detail how to perform the activity and how to use the material.
Activities performed by dental students at a nursery school during their supervised training program

- Adult training: lectures and educational workshops directed towards parents/guardians, caregivers and members of the FHS team. Themes such as the importance of teeth, breast feeding, diet and caries, fluoride/sealants, and oral hygiene (babies, preschool children and adolescents) were discussed.

- Theoretical discussion using a problematization tool: At the end of the semester, undergraduate students performed an evaluation of the positive and negative aspects observed in the activities performed. Three meetings were held, in which discussions were carried out in small groups with the purpose of developing the didactical basis involved in the training course. In the first of these meetings, students began by reading a case and, based on that, they identified the learning questions. In the second meeting, each member of the group presented a synthesis of the material researched to answer each learning question. In the third meeting all the groups came together to close the case. Each group then presented their conclusions on the themes discussed.

Activities performed by the 4th year students

Fourth-year students were responsible for performing the clinical dental care on children’s teeth by using the atraumatic restorative treatment (ART) and the application of sealant in cracks and fissures, according to the indication of each procedure.

Student Participation

All 3rd and 4th year undergraduate students actively participated in all the activities performed during the training period, from planning to execution and assessment. By interacting with the children, identifying education auxiliary agents such as parents, teachers and FHS team members, reproducing the didactical experience in practice, and learning about team work, it was hoped that significant results would be achieved regarding the oral health of the children involved in the program.

Competences and skills

During the activities developed, the objectives of the training program were focused on the acquisition of the six general competences and skills proposed by the NCGs for the health area for the training of dental surgeons in undergraduate courses(3).

One of the competences developed during the training course denominated “health care”, was achieved through the promotion of preventive, protective and rehabilitative oral health activities, both at individual and community level. According to McKimlay(6) (1974), the modern health promotion movement emerged from the necessity of fundamentally changing health care strategies to improve services provided and reduce inequalities. The essence in the contemporary promotion of health is based on the need to approach the underlying causes of disease and the determinants of health in society. In Brazil, opportunities for the implementation of preventive approaches and the promotion of health have been created to account for the new social policies aimed at children(7). In addition, the new FHS teams attributions, established by the re-orientation and expansion of basic health care, have allowed actions in community contexts, including day-care centers (DCCs), through partnerships and inter-sectorial actions(8). Educational concerns regarding children under 5 years emerged only recently and, with them, the need to provide DCCs with environments which could enable children’s physical, cognitive and affective development, and could also represent a complementary educational setting for the family.(8) The school environment should be conducive to the development of a healthy lifestyle, contributing to the formation and maintenance of healthy school staff, pupils and communities(9). DCCs can provide an adequate environment for the maintenance of adequate oral health in children. Undeniably, healthy primary dentition is an important factor for the development of satisfactory masticatory and speech patterns. Moreover, good oral health in childhood prevents unnecessary suffering caused by pain, discomfort and long treatments(8).

Other competences and skills (Decision-making, Communication, Leadership and Administration and Management) were also exercised by students, through the selection, preparation and performance of recreational-
educational activities, adult training, performance of ART and the application of sealant on cracks and fissures found in children’s teeth. According to Lang et al.\(^\text{10}\) (1989), the educational work performed with school-aged children is responsible for most of the habits that will result in health\(^\text{10}\). Recreation has an important role in children’s lives. Apart from being fun, recreation can also be used as a tool to facilitate children personal, social and cultural development, and effectively contribute to their learning. For the educational effort to become reality, however, it is important that an integrated multi-professional approach exists, in which health professionals in general,\(^\text{11}\) education auxiliary agents such as parents/guardians\(^\text{12}\), and teachers, especially nursery and primary schools teachers, are active participants\(^\text{13}\).

Taking into account that health promotion strategies directed towards children are not only the responsibility of the state, but also of individuals, families and communities, it fundamentally requires greater political engagement to reduce inequalities at both social and health levels\(^\text{8}\). Therefore, another important aspect to be highlighted is the training of caregivers. In view of the time spent and the close contact caregivers have with preschool children, they could act as oral health educators by example, and be responsible for the early detection of problems. In addition to that, they could also provide guidance and take the necessary steps to improve children learning circumstances and their quality of life\(^\text{8,14,15}\). At present, there is still no strategy capable of fully integrating the promotion of health, prevention and cure. The lack of actions with greater impact on the control of caries progression has contributed to the buildup of the population’s needs over time, which has made access to individual clinical care increasingly difficult. In face of this reality, wide-reaching oral health strategies should be introduced in compliance with the guidelines and goals proposed in NCGs, especially those which can have an impact on the control of caries. Thus, the atraumatic restorative treatment (ART) may play an important role in tackling the problems involving the control and progression of tooth destruction, which may eventually reach the pulp and lead to the early tooth loss\(^\text{16}\).

Finally, “Permanent Education”, the last of the competences and skills required for the training of dental surgeons, needs to be approached through active educational methodologies, in which professionals may learn to learn and take responsibility for health education. In many undergraduate dental courses, the traditional pedagogy, in which students are expected to absorb and memorize information, is still the norm. This generates a passive attitude towards learning and a lack of critical view of the information received, regardless the source. Moreover, it can also generate a gap between theory and practice, distancing the student from reality\(^\text{17}\). On the other hand, in active educational methodologies, students are stimulated to express their perceptions. This generates active students who observe, question, express perceptions and opinions, and develop analyzing, evaluating, and understanding skills, as well as being capable of conveying these skills to other members of society. At a social level, students learn to value cooperation in search for solutions to common problems, and develop feasible technologies that are culturally compatible with reality. Therefore, the significant use of active educational methodologies and the integration between learning-serving the community emerge as important strategies for the formation of professionals that will not only be better qualified for the work market, but who can also adequately see to the needs of the population\(^\text{6}\).

Based on the evaluation of the activities performed in the training program described here, some suggestions may be drawn for the improvement and maintenance of children’s oral health. One of these suggestions is to hold a meeting at the beginning of each training program to motivate parents and teachers, and raise their awareness concerning the importance of children oral health care. Another suggestion is to include parents and teachers in the supervised toothbrushing sessions, and other activities performed with the children during the year, so that they may help the children under their care to maintain oral hygiene at home as well as during the period they remain at DCCs.
The activities performed in this Community Health Supervised Training Program were validated by the implementation of health practices in which integrated clinical and community health actions were performed based on multi-professional and interdisciplinary actions that provided the community with better oral health services\(^{(19)}\). Discussions on educational practices concerning habits and behavioral patterns, such as health promotion strategies and the identification of groups at risk of oral diseases should take place more frequently. Moreover, the implementation of efficient prevention methods for the early diagnosis of the disease to avoid its early onset should be considered and implemented. Thus, professional training programs may actually be able to form the profile defined in the NCGs for health courses, i.e., professionals integrated with the community capable of mobilizing, and stimulation participation, based on a multiprofessional, interdisciplinary and holistic approach to obtain autonomy of health production in the community.

**FINAL CONSIDERATIONS**

The curative and educational activities performed by the undergraduate dental students in the Community Health Supervised Training Program described above permitted to develop the six general competences and skills required for the adequate training of dental surgeons, as proposed by the National Curricular Guidelines, to attain a differentiated professional profile.

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**ATIVIDADES REALIZADAS DURANTE O ESTÁGIO SUPERVISIONADO DO CURSO DE ODONTOLOGIA DA UEM EM UM CENTRO DE EDUCAÇÃO INFANTIL**

**RESUMO**

As Diretrizes Curriculares Nacionais (DCN) para os cursos de graduação em Odontologia apontam elementos conceituais, filosóficos e metodológicos que visam mudar o processo de formação profissional por meio do desenvolvimento de competências e habilidades. Para tal, atividades de estágio devem ser realizadas ao longo de todo o curso de graduação. O objetivo do presente trabalho é relatar as atividades realizadas durante a disciplina de Estágio Supervisionado em Saúde Coletiva, desenvolvidas em um Centro de Educação Infantil pelos alunos do curso de Odontologia da Universidade Estadual de Maringá. Os alunos do 3º ano eram responsáveis por realizar escovação supervisionada, atividades lúdico-educativas com as crianças, capacitação em saúde bucal dos pais, cuidadoras e integrantes da equipe da Estratégia Saúde da Família, enquanto os alunos do 4º ano realizavam tratamento restaurador atraumático e, quando necessário, o selamento das fossas e fissuras dos dentes das crianças. Os acadêmicos interagiam diretamente com as crianças, os pais, os professores e a equipe da Estratégia Saúde da Família, aplicando a teoria na prática e ganhando experiência no trabalho em equipe. Assim, as seis competências e habilidades gerais requeridas pelas DCNs para os cursos de saúde foram desenvolvidas. Estas atividades se validam na criação de novas práticas de saúde, com uma relação de trabalho baseada na atuação multiprofissional, interdisciplinar e integral, visando à promoção da saúde da comunidade.

**Palavras-chave:** Saúde Bucal. Promoção de Saúde. Crianças.

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**ACTIVIDADES REALIZADAS DURANTE LA RESIDENCIA SUPERVISADA DE ESTUDIANTES DE ODONTOLOGÍA EN UN CENTRO DE EDUCACIÓN INFANTIL**

**RESUMEN**

El Diseño Curricular Nacional (DCN) para carreras de grado en Odontología determina los elementos conceptuales, filosóficos y metodológicos para cambiar el proceso de formación profesional a través del desarrollo de destrezas y habilidades. Para tal fin, las residencias se deben realizar a través de todo el cursado. El objetivo de este trabajo es dar a conocer las actividades realizadas durante el cursado de la Práctica Profesional Supervisada de Salud Pública, llevada a cabo por los estudiantes de Odontología de la Universidad Estatal de Maringá en un Centro de Educación Infantil. Los estudiantes del tercer año fueron los responsables por realizar la tarea de cepillado dental supervisado, las actividades lúdico-educativas con los niños, la formación para la salud bucal tanto de padres, como de cuidadores y miembros del personal de Estrategia Salud de la...
Familia. Por otro lado, los estudiantes del cuarto año realizaron el tratamiento restaurativo atraumático y el sellado de fosetas y fisuras de los dientes de los niños de acuerdo con la necesidad. Los estudiantes trabajaron directamente con los niños, padres, maestros, y el personal de la ESF, aplicando la teoría a la práctica y a su vez adquiriendo experiencia en el trabajo en equipo. Por lo tanto, se lograron las seis competencias y habilidades generales exigidas por el DCN para las carreras de Ciencias de la Salud. Estas actividades son el punto de partida para la creación de nuevas prácticas de salud, con una relación de trabajo basada en la salud multifamiliar, interdisciplinaria e integral, con el objetivo de promover la misma.


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