Application of educational dynamics on health during School Health Week: experience report

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ABSTRACT
The university extension allows the university to approach society, and the resulting exchange of information can encourage the construction of technical and scientific knowledge. The aim of this article is to describe the experience of the development of general and oral health promotion actions, developed in an extension project of the School of Dentistry of the Federal University of Rio de Janeiro. Playful activities were selected as didactic means and applied to schoolchildren (aged 8 to 13) at Henfil Municipal School, CIEP HENFIL - RJ. Health topics were selected according to schoolchildren’s needs and involved dynamics of the senses and dynamics of self-care. The executing team was formed of professors, administrative technicians, and undergraduate students. Participants included 150 children who showed interest and curiosity in the activities. In addition, the participants formed bonds with undergraduate students, which facilitated collaborative relationships in which students felt safe to share their anxieties and insecurities regarding the issues addressed in the activities. The present work highlights the process of constructing ideas, designing activities, acquiring materials, executing the study, and the application of dynamics, experiences, and main results.

Descriptors: Community-Institution Relations. Teaching. Health.
1 INTRODUCTION

The process of university extension is constituted in a set of actions, promoted by the articulation of teaching and research in an attempt to enable the relationship of transformation between university and community. This process has as characteristics the education, culture, science, and ability to promote the exchange of knowledge between the academic environment and the popular environment. When properly structured, the result of the conception of knowledge derives from the confrontation between theory and practical reality. Democratizing academic knowledge allows the effective participation of the community in the university environment.³ University extension, a connection between teaching, research, and extension, is an interdisciplinary educational, cultural, scientific, and political system that drives transformative interactions between the university and other sectors of society.³

Among the guidelines for the formulation and implementation of their actions, extension projects impact undergraduate student education and social transformation by constituting decisive contributions and expanding students’ universe of reference by promoting direct contact with the major issues of the contemporary world. In addition, they impact social transformation through the university’s interrelationship with other sectors of society with a view toward transformative action focused on the interests and needs of a large part of the population.³

In addition, the extension should promote social inclusion, reducing the distance between the university and adjacent communities, in order to sustain the link between teaching, research, and extension.²³ Considering the significant link between the extension and students’ education, the effective link between the university and its socioeconomic environment, the national curriculum guidelines for health courses,⁴⁵ and the regulation of extension as a mandatory academic activity of undergraduate courses in Brazil in the form of an curricular component,⁶ the Federal University of Rio de Janeiro (UFRJ) regulates the registration and inclusion of extension activities in the curricula of its undergraduate courses. With this requirement, at least ten percent of the total workload in a curriculum involves undergraduate students’ performance in extension activities.⁷⁸

Thus, different extension projects have been developed at the School of Dentistry of UFRJ (FO-UFRJ), such as “Health at school: education, prevention and diagnosis of oral cavity problems, hearing and speech of preschoolers and teachers,” which involved a multidisciplinary team from different health specialties with the participation of professors, administrative technicians, and graduate and undergraduate students. The project obtained financial support from the Ministry of Education through the PROEXT/MEC/SESu notice (2014/2015) to promote university extension. The project aimed at the production and dissemination of new knowledge and methodologies in the area of education, teaching, prevention, and diagnosis of the main oral diseases and hearing and speech impairments. The target audience included preschoolers, schoolchildren, and teachers at municipal schools in Rio de Janeiro. The actions were interdisciplinary, interinstitutional, and interprofessional, and aimed to understand attitudes towards oral, auditory, and speech health, along with avenues for developing self-care.

This project was based on school performance, which is an environment conducive to educational practices in health, the
acquisition of healthy lifestyles, and the prevention of harmful behaviors. In schools, the proximity to the community facilitates the development of priority actions, as individuals can use their environments to identify social commitments to their communities. This setting promotes health education, which may enable students to change their health habits. It supports them in their quest for autonomy by equipping schoolchildren with actions and knowledge about health and disease processes.

This article aims to report the experiences in the application of educational dynamics on health in a school environment. Thus, we report the ideation, design, preparation, testing, and application of two didactic means, that is, two dynamics for health education in the school environment, since the school is a privileged environment where the concept of health can be encouraged among children and adolescents.

2 EXPERIENCE REPORT

General Proposal

The present study presents an experience report that emerged from the activity entitled “Application of educational dynamics on health during school health week,” developed during the school health week held from May 18 to 22, 2015, linked to the extension project “Health at school: education, prevention and diagnosis of oral cavity problems, hearing and speech of preschoolers and teachers,” which obtained financial support from the PROEXT/MEC/SESu notice (2014/2015) and with logistical and staff support from the Municipal Health Secretary of Rio de Janeiro (SMS-RJ).

Site of development

The activity was carried out on the premises of the Ciep Henfil Municipal School (CIEP HENFIL - RJ), located in the Caju neighborhood in Rio de Janeiro. The target audience was schoolchildren aged 8 to 13. The Caju neighborhood has a low social index, and it is among the smallest municipalities of Rio de Janeiro.

Methodological Design

The activities were developed considering the age group, socioeconomic status, and environment of the target audience’s public school. The methodology of actions and related activities was as follows: (1) ideation and definition of the theme; (2) weekly meetings of the executing team to review and discuss the literature related to the theme and to design the methodology; (3) preparation of teaching materials; (4) testing the activity through the pilot project; (5) application of didactic means. In the weekly meetings, the undergraduate students linked to the project participated, mainly the PROEXT/MEC scholarship holders (2015), supervised by professors or administrative technicians (dentists, speech therapists, or occupational therapists) from UFRJ.

The executing team selected playful activities as the project methodology, an ideal option to coincide with School Health Week. Through the practice of games and play, children expand their knowledge, develop languages, explore and manipulate objects, organize their thoughts, discover and respect rules, and socialize with other children. Playful activities were selected with the objective of arousing interest and attracting attention among students through the interactive transmission of knowledge. New pedagogical strategies in the promotion of teaching and learning are on the rise, such as active methodologies and playful activities, which are effective instruments in the teaching and learning process. Due to the diversity of agents that can
influence oral health, as well as hearing and voice health, we aim to address everyday health-related topics such as body and oral hygiene, dental caries, halitosis, piercings, mouth guards, dental trauma, smoking, dental whitening, bruxism, use of headphones, and noisy environments. All aspects were addressed against the background of human senses and self-care. The development of playful educational strategies that address common and accessible themes was approved by the group. The dynamics of choice were “dynamics of the senses” and “dynamics of self-care,” because these dynamics are part of the daily universe of the schoolchildren’s; thus, the target audience could identify with the issues addressed.

1) Dynamics of the senses

The themes were selected through dialogue with schoolchildren of similar age to the target audience. Topics of interest to the target audience were essential for students to feel stimulated and pre-disposed to participate. In this population, a diversity of agents can influence oral health, as well as hearing and voice health. The selected subjects were associated with the five human senses (vision, touch, smell, hearing, and taste) so that a gradual approximation of the senses could be dynamic and interactive. Over the course of the teaching process, learning activities stimulated the development of sensory skills. Such dynamics should be proposed more frequently, since the senses are explored in various contexts of human social relations.¹⁵

Touch: models of healthy and sick dental arches were selected. These macro models were plaster reproductions of full-size dental arches with increased dimensions. Schoolchildren’s were encouraged to handle the models, describing what they felt and what they believed to be normal or abnormal dental patterns. The dentistry students then explained what could cause abnormal changes and how to prevent or treat them.

Vision: photographs were selected from the literature and the image bank of the discipline of Pediatric Dentistry of FO-UFRJ. We chose pictures of both normal and abnormal cases and that were impacting in the eyes of the schoolchildren. Similarly, researchers explained what was portrayed in the photos, as well as how to prevent or treat abnormalities.

Smell: an assimilation of odors representative of halitosis was presented. We selected items with pleasant and unpleasant odors to present as good breath and bad breath. Graduate students provided guidance and taught prevention and treatment for bad breath.

Taste: different flavors were explored in conjunction with the anatomy of the tongue. Students were able to expand their knowledge of how their own bodies respond to different tastes.

Hearing: sounds were used to represent deviations from normal conditions. These sounds were magnified with explanations and models of the anatomy of the ear.

These materials were presented to the working group during the weekly meetings and approved after adjustment. To verify the activity, pilot tests were performed on a smaller scale, serving as guidance for the activity itself; these tests were performed internally at FO-UFRJ, in which the practical application of the dynamics of the senses was performed with groups of patients from the Department of Pediatric Dentistry and Orthodontics. These patients were in the same age group as the target audience of the project. In this initial proposal, each material was presented to the children and adolescents as a gradual approximation of the five human senses. Explanations were attributed to each dynamic object to test its effectiveness and allow for improvements. Through this test,
we obtained responses from the participants regarding the dynamics, which facilitated an analysis of what was working as expected and what did not follow expectations. The test was well received by children and adolescents, who were interested in participating and receptive to learning new things; thus, the overall result of the model was positive.

The main modifications following the pilot test were in relation to the appearance and color of the materials because the more beautiful and colorful objects garnered more attention. The participants were most attracted to the visual question, as well as the models of dental arches. After the modifications, the study was performed in the school environment (Figure 1). The presentations were adapted according to the age of the target audience, such as varying language and amount of content, thus ensuring full participation for all age groups.

2) Self-Care Dynamics

The dynamics of self-care continue to involve the senses (Figure 2). This portion was created to meet the demand of the direction of CIEP HENFIL - RJ, which requested the execution of activities on personal hygiene, and whose objective was to make students aware of the importance of personal care. In a playful and sensitive way, this portion guided students regarding their own hygiene, and presented customs, habits, and experiences for self-upkeep. Students were able to learn correct attitudes and more appropriate and healthy behaviors. The materials selected were personal hygiene items such as shampoo, soap, deodorant, a toothbrush, toothpaste, a bath sponge, nail clippers, cotton swabs, and toilet paper, which were placed in a hygiene box. These items were presented during the workshops, then taken to the school environment. The dynamics of self-care were performed using these hygiene boxes for two days. In addition to hygiene items, personal items and activities related to personal hygiene were presented using colorful and flashy drawings made by university scholarship holders.

Figure 1. Participation of schoolchildren in the dynamics of the senses.

Figure 2. Application of self-care dynamics.
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through PROEXT/MEC/SESu (2014/2015) of the School of Fine Arts of UFRJ. The activity was performed individually by the students, who were instructed to choose a drawing that depicted necessary care for general health and personal hygiene. Subsequently, they were challenged to search within the hygiene box for personal care products that corresponded with the practice in the drawing. For the selection, the schoolchildren were blindfolded so that they could rely on senses other than vision, which made the activity more interactive and aroused schoolchildren’ interest. As a result, they were motivated to learn. At the end of the activity, with the drawing and hygiene item in hand, the schoolchildren learned more about the practice from the undergraduate students.

Results and Discussion
The target audience showed a positive reaction in relation to dynamics. They were interested in the themes that were involved with subjects they experience daily, and the students were willing to interact with extensions during the activities. As predicted, sharpening the curiosity of schoolchildren is a way to involve them in a project and attract them to participate. Situations that bring students closer to practices result in greater learning, in addition to the development of skills and abilities related to the subject.16

During the execution of activities, the students approached the content as situations portrayed in their daily lives or in the daily lives of people close to them. This included reports of trauma, fractures, caries, poor hygiene, abusive use of earphones, and problems related to piercings. These connections represent one of the objectives of the project, that is, the approximation of the content to the schoolchildren’ everyday lives.

The researchers observed that, through the interest and participation of the schoolchildren in the dynamics, knowledge could be transmitted through a dynamic interaction, realizing the objective that schoolchildren feel more oriented around the study’s themes, discovering and rediscovering the origin of possible problems, and being able to make safer decisions in the future. These achievements equip schoolchildren to prevent problems that may affect their oral and auditory health, and also to replace poor habits with healthier practices, both for themselves and for their families. Practices involving the five senses, besides being a novelty in the teaching-learning process, can contribute to the development and improvement of perception, care, and interpersonal relationship skills, as occurred in Franco (2017, p. 193) with playful activities involving health.15

The themes addressed in this project resulted from the demand of the school and its schoolchildren so that schoolchildren can identify situations and activities in their daily lives and feel better oriented and safer about their oral health.

One of the most significant factors for health promotion is education. The school environment can be favorable to the formation of citizens who act in favor of improvements to personal and community health.17 Schools are more likely to promote educational actions than others places and institutions.18

The World Health Organization (WHO) document “Promoción de la Salud mediante las Escuelas” recognizes the relationship between education and health, and it understands that activities can improve education and increase learning potential while leading to improved health. Such activities should be established in schools, because good health supports profitable learning and vice versa.19 Based on this relationship, actions in this study apply...
recreational activities in the school environment. The application of playful resources favors the simple and immersive acquisition of information because it attracts the interest of students by contributing to changes in habits and behaviors. At the same time, subsidies for health professionals in childcare can better equip medical professionals to discern what a child feels and thinks through play,20,21,22 as observed in this study.

The extension project allows undergraduate students to gain firsthand experience with customs, daily life, and doubts, part of a reality different from that necessarily known to undergraduate students. Aggregating knowledge and values contributes to both their professional and personal life. This exchange of experiences is based on individual stories in which undergraduates approached the content like everyday situations. The schoolchildren created bonds and relationships of collaboration, feeling safe to share their longing and insecurity regarding certain subjects. A relationship of collaboration further motivated the undergraduate students to get involved with the project and provide the best of themselves during the execution of the dynamics, in addition to training in the field of teaching.

The schoolchildren fully interacted with the activities. They were stimulated and willing to participate in the actions. The positive reaction of the students in relation to the dynamics was proven by their willingness to repeat the activities, and they later requested the presence of undergraduate students in the school environment more frequently. Moreover, it was possible to verify the assimilation of content by observing the students teach and explain the dynamic topics to each other. As predicted, the way to sharpen the curiosity of the students is to involve them, attract them to participate, and make the assimilation of the content feel natural. Other experience reports confirm that awakening the attention of schoolchildren is an effective form of teaching, and it contributes to the search for new knowledge and consequently expanding knowledge.23,24

The development of playful educational strategies which address themes that are quite common and accessible to schoolchildren, such as the dynamics of the senses and self-care, demonstrates the role of undergraduate students in health promotion in schools, particularly within the scope of university extension.25 Stimulating students’ search for knowledge makes them want to participate and interact. It encourages students to think and to reflect on their actions, uncertainties, and doubts about health. Sharpening students’ curiosity is a way of involving them and attracting them to participate, which makes content assimilation feel natural. If students remember what they have learned and experienced, they can feel safer about ways to promote their health, avoid poor habits, and adopt healthy practices. Thus, with playful educational strategies, more students will make safe decisions, prevent potential health problems, and positively influence other people in their lives.

The school administration was very satisfied with the execution of the project because its issues were addressed. Schoolchildren became aware of the importance of performing personal care to maintain their own hygiene and healthy behaviors. In addition, Schoolchildren gained awareness of the diversity of agents that can influence oral health, as well as in the health of hearing and voice, through the dynamics of the senses. Thus, the objectives of improving the quality of life of schoolchildren and training extensionist undergraduate students were achieved.

Regarding the vulnerabilities of the implementation of the project, the extension
project executed in the school environment was not presented and clarified to all teachers, coordinators, and school staff, who could have expanded the participation by opining on and contributing to the methods and proposals of planning. Teachers have intense interaction with students and are more familiar with their situations, so their partnership with education programs is essential to contribute to the development of health promotion.\(^{24}\)

Another observation involves the execution time. The educational activities were performed during school hours, which caused many schoolchildren to choose the activities with the undergraduate students in lieu of regular schoolwork. These issues were addressed in the evaluation meetings, and proposals for strategies are being developed for future revision.

Previous reports corroborate the conclusions of this study,\(^{24}\) confirming the effectiveness of school partnerships for establishing oral disease prevention habits, hygiene care, and information on oral health. Additionally, the use of teaching strategies with dynamic and fun activities are among those that most motivate and stimulate undergraduate students.\(^{26}\)

3 CONCLUSION

Based on the results, this study concludes that teaching health through playful educational dynamics contributes to achieving objectives, since playful activities arouse interest and attract attention and participation among schoolchildren.

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RESUMO

Aplicação de dinâmicas educativas sobre saúde durante a Semana de Saúde Escolar: relato de experiência

A extensão universitária permite que a universidade se aproxime da sociedade e que a troca de saberes possa permear a construção do conhecimento técnico-científico. O objetivo deste artigo é descrever a experiência do desenvolvimento de ações de promoção de saúde geral e bucal, desenvolvidas em um projeto de extensão da Faculdade de Odontologia da Universidade Federal do Rio de Janeiro. Desta forma, atividades lúdicas foram selecionadas como meios didáticos e aplicados em escolares (08 a 13 anos) da Escola Municipal Henfil, CIEP HENFIL - RJ. Os temas em saúde foram selecionados de acordo com a realidade dos escolares e envolveram os órgãos dos sentidos criando a Dinâmica dos sentidos e a Dinâmica do Autocuidado. A equipe executora foi formada por docentes, técnicos administrativos e discentes de graduação. Participaram ativamente das ações 150 crianças que demonstraram interesse e curiosidade. Ademais, os escolares criaram vínculos com os discentes de graduação, relações de cumplicidade, se sentindo seguros para compartilhar seus anseios e inseguranças quanto aos assuntos abordados. O presente trabalho destaca o processo de construção da ideia, delineamento das atividades, aquisição do material, capacitação para execução e aborda a aplicação das dinâmicas, as experiências e
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principais resultados.


REFERENCES


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