

Current Comments

Outside clinical setting experience in a public hospital and oral health promotion

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Keywords

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Abstract

Objective

To describe a teaching aid activity aimed at providing experience for promoting collective oral health to graduating dental students.

Methods

This experience was based on the evaluation of students' performance as oral health educators as they had, among other duties, to motivate inpatients and their families to practice healthy habits aiming at a comprehensive and more human care of hospitalized patients.

Results

The results show that oral hygiene was incorporated into hospital routine, evidenced by the differences between baseline and final dental biofilm indices (1.72 and 1.17, respectively). Using the U-Mann-Whitney test, this difference was extremely significant ($p < 0.001$) and reveals that mother-child were highly motivated with respect to oral hygiene.

Conclusions

It is concluded that teaching-learning experiences derived from interdisciplinary and interdisciplinary activities have allowed for a better understanding of the health-disease process by dental students. It is also an opportunity for learning about planning and implementing education-prevention activities, which complement these students' technical-professional experience and promotes social sensitivity, which is essential to professional training.

INTRODUCTION

In Brazil, since the Brazilian Health Reform, the emphasis on primary care has led health education institutions to reflect on the need for developing extramural activities, seeking integration with health services. This resulted in proposals for educator-care provider integration.^{2,4,10}

University extension activities were created to advise education projects in the training of health professionals, which must be sensitive to social needs and have the competence to bring about changes in

the epidemiological scenario of diseases, through health integration and thus improved quality of life for the population. These activities were conceived to contribute to the education of a professional sensitive to the health requirements of the population, seeking a multidisciplinary integration between preventive and therapeutic actions, theory and practice, teaching and service delivery.^{7,11,15}

Extension activities have transitory characteristics, serving both as field research and teaching activities. In some cases, they have been diverted from their original purpose as an educational, cultural and sci-

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entific process which indissolubly links teaching and research and allows for this changing action between the university and society by training professionals committed to social reality. Several authors have described that university extension activities enrich or complement current dental teaching, which should be founded on realistic and human bases, wrapped in a new paradigm, directed to the preservation of structures and promoting health in its true sense.^{2,7,8,11}

Some projects developed through institutions such as the Kellogg Foundation, Brazilian Association of Dental Teaching (ABENO) and Coordination for Improvement of University Education (CAPES) have enabled the establishment of extramural clinics alongside dental schools.¹⁰ One of these experiences has brought insight for innovating in teacher-care provider integration. The UNI Project – which according to one of its founders, Professor Mário Chaves, means Union, University, and Unity or “a new initiative in health profession education³⁹” – is supported by the Kellogg Foundation and is being implemented worldwide and has been implemented in six Brazilian universities, including the *Universidade Federal do Rio Grande do Norte* (UFRN). The UNI Project operates at the university-community-service level, aiming not only at an extension activity but rather a paradigmatic change by proposing a new approach to teaching.^{3,4}

This study describes an experience for promoting collective oral health modeled on teaching-service integration and developed in a hospital setting, which is unfamiliar to dental dentistry students, aiming at understanding the various determinants in the health-disease process, as well as the capacity to generate motivation in adverse situations.

The activities of this academic experience have been developed from the evaluation of the performance of graduating dental students as “oral health educator”, whose main task during their internship is to develop actions directed at improving patient-mother oral hygiene, besides following up the subjective elements of recovery therapy and health rehabilitation of the patient as a whole within the hospital context. At the same time they perceive treatment contextualization, graduating students seek to make the patient-mother pair aware of healthy habits such as incorporating oral hygiene in the daily body hygiene routine as the main factor in controlling and preventing oral diseases. These habits, developed from self-care orientation given during their hospital stay, would generate healthy attitudes, leading to improved health and better quality of life.

The purpose of the present study is to report an

extramural teaching experience directed at two groups: graduating dental students and patient-mother pairs hospitalized in the pediatric ward of a hospital. This type of experience has been described in teacher-caregiver integration studies as important for improving the academic education process, since it stimulates social sensitivity crucial to any profession, particularly in health, especially when aiming at interdisciplinary team work integration.

FEATURES OF THE INTERNSHIP SETTING

UFRN dental students in the 9th term must complete a 315-hour course program of supervised internship, where at least 45 hours are spent in the pediatric ward of the aforementioned hospital.

This hospital in the Western District of Natal, state of Rio Grande do Norte (RN), Brazil, is an institution of the Brazilian National Health System and is the leading state facility of infectious diseases in children and adults. It has a 136-bed capacity, divided into seven infirmaries. The pediatric ward has 25 beds and a playroom and attends patients from the interior of RN, neighboring states, and the state capital Natal.

Child care is provided by a team of three pediatricians, three male nurses, a nutritionist, a social assistant, a psychologist, 18 nurse assistants, two “play-mates,” and two dental interns.

Inpatient children are usually in the 0-13 year age group and remain hospitalized for an average of 45 days, and most come from poor social and economic families. They are usually accompanied by their mothers, who remain by their bedside throughout the entire hospital stay, as provided by the law, actively participating in their child’s recovery.

At the beginning of the internship, a meeting is held with the ward team, teachers and students to explain this new pediatric treatment concept, and the redefining of the hospital’s role in the local health system for a comprehensive child care. On this occasion, the functions and activities to be performed by each team member are explained, such as how to approach the patient, the role of the mother, internal rules, patient flow, location and availability of medical charts attached to which is an oral health card, where patient progress is recorded in relation to the incorporation of oral hygiene procedures into his daily routine while he is hospitalized. A score is recorded on the card, quantified by stars, as the treatment progresses and routine habits are observed, such as dental brushing associated with bathing as a complement to body washing. At the time of hospital discharge, patients

have generally become “five-star patients”, and are awarded a “motivated patient” certificate.

In addition to these general aspects which make up the ward routine, and which dental interns should know and experience, there are goals which are part of intervention method itself and should be achieved while performing their role as oral health educator, that is:

1. Incorporate oral hygiene into the play, bathing and meal routine of the pediatric ward.
2. Motivate the health team, mothers and children and mothers through entertaining activities.
3. Work in conjunction with patients and mothers, identifying each one's condition to better understand the diagnosis, therapy, prognosis, clinical conditions, duration of hospital stay, expected discharge date, etc.
4. Elaborate a weekly program suited to the hospital routine which aims at: a) Establishing and performing routinely preventive and education actions for dental cavities and periodontal disease; b) Measuring dental biofilm index (initial and final) in all hospitalized children and mothers that have natural teeth. c) Recording all dental activities on a daily basis, including individual progress on the oral health card and in the playroom activity book.

INTERNSHIP ANALYSIS

The period analyzed was between July 1 and December 30, 2002. Silness & Løe index was used and samples were collected from 94 subjects in the first week (initial biofilm index) and last week (final biofilm index) of hospitalization.¹⁴ Dental biofilm indices (initial and final) were analyzed by the U-Mann-Whitney test, which measured patients' motivation level and thus the impact of the educational-preventive activity performed by the students.

COMMENTS ON THE EXPERIENCE OUTCOMES

The process of conceiving a new health care model, respecting patient rights and bringing together students, teachers, and health professionals and the community has been proceeding satisfactorily in the study hospital's pediatric ward.

Historically, there has been a strong stigma among the population with regard to this hospital of infectious diseases. It is characterized as an institution for treating debilitated patients, bearing highly infectious and frequently fatal diseases, which causes apprehension in the community. These stigmatizing aspects, distinctive and characteristic of all hospitals

that treat diseases of this nature, initially generate a certain inhibition among the interns, most likely due to the limitations of their own highly individualistic, reductionist and elitist education, focused on technique and rejecting the comprehensive concept of health-disease process.

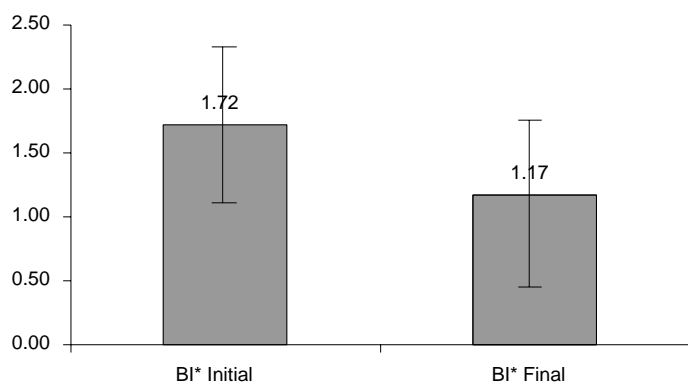
All these issues initially make it difficult to understand and link the elements which incorporate the human beings in every dimension of their life, such as being born, growing up, working, being happy and in love, as well as considering their economic, social, ecological, and cultural relations. Fortunately, however, such difficulties are overcome over time by the affective bond which is formed between students and patients.⁵

Thus, in this type of experience, students are faced with challenges, requiring an comprehensive and interdisciplinary intervention adequate and suitable to their education. During their intimate contact with patients, the students begin to understand the social and economic and psychological conditions of the child-mother pair, perceiving the intense anxiety and suffering of the mother with her child's hospitalization, her feelings of separation and mixed feelings toward this offspring and those left at home.

Furthermore, according to Bezerra & Fraga,¹ students realize that the hospital stay results in distinct manifestations of psychic suffering in the mother, such as sadness, discouragement, anorexia, mental anguish, and depression. Despite their limitations, the students try to establish a systematic relationship with the families, that would be able to minimize anxieties, establish empathy, and form bonds, thus widening the likelihood of creating and conveying dental advice in a more entertaining and human manner.

Creativity does not represent personal apathy or emptiness, nor is it the exclusive privilege of those who deal with the arts or an imaginative replacement of reality. Creativity is an intensification of living, an experience in doing; instead of replacing reality, it is reality itself. It represents a new reality which acquires new dimensions by the fact that one relates to oneself at higher and more complex levels of consciousness.¹³ Hence the feeling of inner growth, frequently pointed out by the students during the internship which, according to them, “broadens our horizons on life”.

In this sense, and from what the students themselves reported, they gradually perceived the playroom and the information group and “time to talk” meetings as important tools which allowed for the use of different



*BI: Biofilm index

Figure 1 - Dental biofilm indices (initial and final) of patients and mothers at pediatric hospital infirmary. Natal, Brazil, 2002.

approaches, developed according to each child's capabilities, abilities and creativity, and a continual evaluation of the activities performed.

Erickson⁹ considers that expressing conflicts through game playing is the most natural form of self-therapy available for children. He affirms that it is possible that games play many other roles in child development, but undoubtedly the child at play mitigates their suffering, frustrations and failures. It represents children's human capacity to deal with experiences and master reality.

According to Neira,¹² it is through playing that a child learns, practices newly-acquired abilities, finds wonder in new discoveries; overcomes fear and anxiety, incessantly repeats what she/he enjoys, explores and investigates the world around them.

Entertaining activities, in turn, are able to involve, in a pleasurable and spontaneous manner, the source and the receiver, both key elements in the process of communication. Activities developed in this experience used didactic-pedagogic instruments which could humanize the task and facilitate the understanding of the message, as well as an affective approximation between individuals, crucial in a hospital setting. Theater, for example, as an informal manner of transmitting messages, gives rise to freedom of expression, as the actors express feelings, attitudes and beliefs while playing roles. It is certainly one of the most effective means of educating and motivating individuals. Lectures, especially if they are interactive, provide a great opportunity for exchanging personal experiences and allows for finding solutions collectively.⁶

Various activities with strong entertainment appeal such as theater, comic strips, educational games, painting and posters prepared by dental students were carried out with the participation of children

and mothers; besides showing videos, reading of technical texts and stories were developed together with the target population. Technical activities per se complemented these activities, and included individualized oral hygiene orientation for patients with motor disorders, bedside visits, dental biofilm identification followed by Silness & L oe Index test, topical fluoride applications, as well as supervised oral hygiene and motivational reinforcement in order to achieve adequate oral hygiene.

In this first evaluation of supervised dental internship in the hospital, the following outcomes were observed:

- Oral hygiene, considered essential by the health team, mothers and children, has already been incorporated into the pediatric ward routine.
- The diversity of patient conditions and the need for prevention, control and treatment of the different disease during hospitalization has allowed dental students to gain experience resulting from interdisciplinary and multiprofessional interventions, besides acquiring a better understanding of the health-disease process, from their contact with the patients.
- Planning and activities performed by the students, which included different educational and preventive tools, allowed for the use of various pedagogic techniques applied in health education and patient motivation process, which will likely have important impact on their professional education.

In Figure 1, a statistically significant reduction ($p < 0.0001$) can be observed in average dental biofilm index during the hospital stay. It indicates greater disposition in all involved to spontaneously practice oral hygiene, thus demonstrating the level of motivation acquired during hospitalization. The reduction from 1.72 to 1.17 was significant in the U-Mann-Whitney test.

Figure 2 shows that during the first week in the hospital, of a total of 94 who were hospitalized, only 15% of the patient-mother pairs practiced oral hygiene, and after the educational-preventive effort, approximately 85% incorporated this habit into their daily hygiene routine. Considering the special nature of working with children, especially in a hospital setting, this outcome is extremely favorable because this activity is directly related to other factors, such as disease severity, general clinical manifestations and individual progress of patients.

Costa et al⁷ report that extension activities, here designated as extramural dental activities, were in-

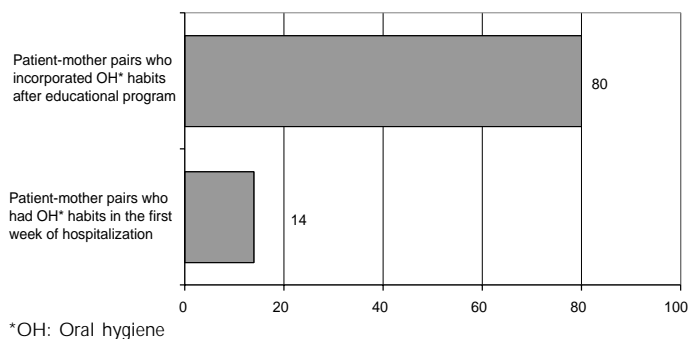


Figure 2 - Patient-mother pairs at pediatric hospital infirmary who already brushed their teeth in the first week of hospitalization and those who acquired the habit only after the educational program. Natal, Brazil, 2002.

troduced into the course programs in order to arouse social sensitivity and to train professionals committed to collective oral health. Some studies^{2,4,8,10,11,15} have shown that these activities should be increasingly encouraged in order to train dental professionals with more humane and democratic attitudes, and who, through collective actions, give back to the

community at least part of what was invested in their education.

The study outcomes lead one to believe that implementing educational and oral health preventive activities in a hospital setting is essential to academic education, both for the opportunity provided to dental students to interact with other health professionals and the individual and collective growth that an extramural activity promotes. This allows students to have different and enriching experiences in human and professional development, without losing sight of the patient as a whole. Furthermore, the patient-mother pair receive comprehensive care as recommended by one of the principles of the National Health System (SUS) (comprehensiveness) and leave the hospital with a better understanding of the interrelation between oral health and general health, since one does not exist without the other and, once at home, could be the critical factor in promoting health within the nuclear family.

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