

## V. DENTISTRY

# FEED-BACK LOOP EVALUATION OF THE ORAL HEALTH EDUCATION MESSAGE

**Daniela Jumanca, Angela Podariu, Atena Galuscan, Roxana Oancea, Ramona Popovici, Ruxandra Rosianu**

Discipline of Preventive, Community Dental Medicine and Oral Health, Faculty of Dental Medicine – „Victor Babeş” UMP Timisoara

### Abstract

Considering the general situation of oral hygiene in children, a special attention must be paid to institutionalized children. For this reason, Rotary Club Timișoara, District 2241, under the coordination of President Mihai Avram, started, at the beginning of 2006, a project on oro-dental health education of institutionalized children. This project was run in cooperation with the „Centre for Promotion of Health Education and Motivation of Prevention in Dentistry” accredited by the National Board of Higher Education Scientific Research (CNCSIS) Bucharest (collaboration contract no. 226/2006). The Centre activates in the Department of Preventive, Community Dental Medicine and Oral Health of the Faculty of Dental Medicine – „Victor Babeş” UMP Timișoara. The aim of the project was to make aware and motivate these children with a special situation, in order to achieve and maintain an appropriate oro-dental hygiene.

**Key words:** institutionalized children, prevention, oro-dental hygiene, motivation, bacterial plaque

### Introduction

„Preventive dental medicine” is a constitutive part of dental medicine, connected to the study and implementation of protective measures and early treatments – both at individual and community level – with the aim of accomplishing and maintaining the integrity of oro-dental structures throughout human life. In the World Health Organization classification, oro-dental diseases are situated on the third place as a worldwide plague. This shows that dentists must make all efforts for this „leading” role to disappear. For this, prevention of oro-dental diseases must become a priority on every specialist’s agenda. Patients must be educated towards a certain number of behaviours, because the best results are obtained by individualized education. Behaviours with which patients must become familiar are: hygiene measures, periodic control visits, an appropriate diet.

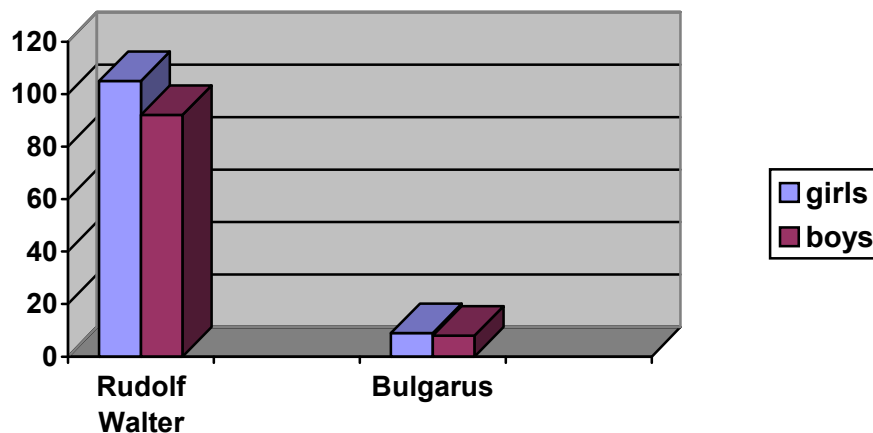
Considering the general situation of oral hygiene in children, a special attention must be paid to

institutionalized children. For this reason, Rotary Club Timișoara, District 2241, under the coordination of President Mihai Avram, started, at the beginning of 2006, a project on oro-dental health education of institutionalized children. This project was run in cooperation with the „Centre for Promotion of Health Education and Motivation of Prevention in Dentistry” accredited by the National Board of Higher Education Scientific Research (CNCSIS) Bucharest (collaboration contract no. 226/2006). The Centre activates in the Department of Preventive, Community Dental Medicine and Oral Health of the Faculty of Dental Medicine – „Victor Babeş” UMP Timișoara.

The aim of the project was to make aware and motivate these children with a special situation, in order to achieve and maintain an appropriate oro-dental hygiene. From previous studies we observed that in most cases dental brushing is restricted to an apparent cleanness, an action performed under constraint. But, as most of the oro-dental diseases may be prevented by addressing the causes, performing oro-dental hygiene is primordial.

The need to change habits and behaviours is obvious; but this change occurs neither spontaneously nor easily. In order to make the patient active and especially in order to keep the quality and constance of cleaning, we must create an imperious need, a deep motivation. This ambitious goal may be achieved only by an intellectual endeavour of a „communication professional”, by use of educational materials matching the age and understanding level and with a lot of patience. To educate means to transmit a message; and in order to succeed you must have an appropriate experience, to know effective techniques and to respect certain psychological principles.

The objective of this project was to offer oro-dental health education and prevention services for over 200 institutionalized children in orphanages, actions financed by the project: „Feed-back Loop Evaluation of the Oral Health Education Message”. Children who benefited were from the Rudolf Walther Home (194) and from the Childrens’ Home in Bulgaruș village (17). These children were aged between 5 and 17 years.

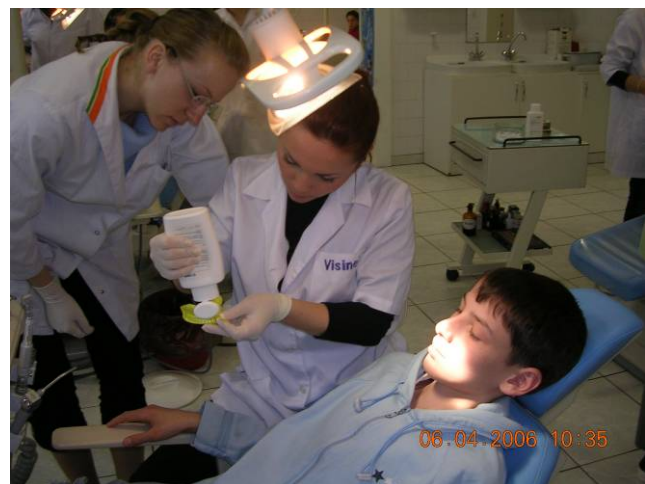


This project went through the following stages:

- clinical examination, monitoring, assessment of the initial state of dental hygiene, age group specific oro-dental health education lectures, leaflets, games and interactive sessions;
- performing of actual prevention actions; and
- assessment of the perception of the oro-dental health education message

Each patient was examined, a dental and a prevention file were filled in with the initial examination data: the bacterial plaque index was calculated after marking with revealing substances and the degree of oral hygiene was established. In this study we used the Quigley-Hein

Index which is based upon assessment of the bacterial plaque covering the dental crown, without taking into account its thickness, and it is scored from 0 to 5 (0 for total absence of plaque and 5 for plaque covering more than 2/3 of the tooth). Then, each patient was individually educated and given elementary notions on teeth composition, proper brushing and the way dental caries occur. Following dental plaque revealing, they were made aware on the existence of unbrushed food debris on dental surfaces and could improve their brushing by insisting on retention areas. After that, professional brushing was performed and, in some cases, ultrasound and abrasive powder scaling were used.



During the following visits, revealing of bacterial plaque was repeated in order to check the way they improved dental brushing and preventive procedures were performed. All caries-free molars and premolars were sealed for further protection and a topical fluoride gel application was done in order to strengthen the enamel superficial layer. WHO included sealing of groves and fossets among the 4 dental caries prevention methods, together with oro-dental hygiene, general and local fluoride application and food hygiene. It may be stated that sealing contributes by mechanical blocking to the increase of hard dental structures

facing cariogenic attacks, being the most effective prophylactic measure against occlusal caries.

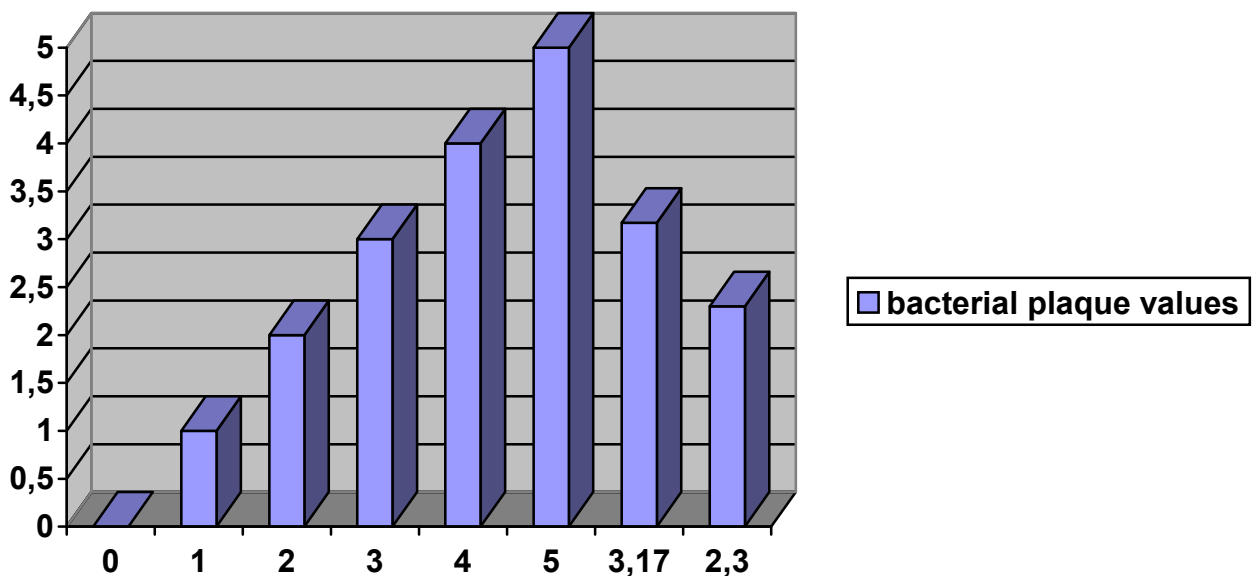
In parallel, age-group specific oro-dental health education lessons were given: slide presentations and muppet theatre with Dr. Knabel bunny for preschool children, as well as Power Point and poster presentations for pupils. During community dental medicine stages, our department staff together with Dental Medicine students went to these homes for children where students gave health education lectures.



Interactive discussions were permanently organized stimulating children to describe things they understood and to exemplify proper dental brushing by use of demonstration models. Flyers with notions on proper dental brushing, dental plaque and its role in dental caries and periodontal disease were spread; notions on the use of dental floss and mouth rinse and a game which gave each child the opportunity to check during one month if he or she does or does not forget morning and evening brushing.

Throughout the period this study was performed, we observed that the position of children towards the visit to

the dentist changed a lot. As soon as the second session, most children came without fear, even showing pleasure and impatiently waiting for the treatment. The aspects which pleased us most were that the message we sent was receptioned, fact proven by the decrease of bacterial plaque index (on a 0 to 5 scale) from a mean value of 3.17 in the first session to an average of 2.30 in the last check-up and the increased interest and preoccupation of these children for a better oro-dental hygiene.



**References**

1. Batchelor P (2002) The limitation of a high-risk approach for the prevention of dental caries. *Community Dent Oral Epidemiol* 30:302-12.
2. Gussy M. (2006) Early childhood caries: current evidence for etiology and prevention. *Journal of Paediatrics and Child Health* 42:37-43.

Correspondence to:

Conf. Dr. Daniela Jumanca  
„Victor Babeş” UMP Timisoara  
Splaiul Tudor Vladimirescu nr. 14A  
Timisoara,  
Romania  
Tel: 0256-204950  
E-mail: proiectetm@yahoo.com, djumanca@clicknet.ro