

ORAL HEALTH – TEACHERS BEHAVIOR CHANGE – A MAJOR FACTOR OF PROGRESS

Dănilă Ioan¹, Evghenikos Adina¹, Petersen PE², Sălăvăstru C³, Stan A³

1. University of Medicine and Pharmacy “Gr. T. Popa”, Iași, România, Faculty of Dentistry, Department of Preventive Dentistry;
2. Faculty of Health Sciences, University of Copenhagen, Denmark; World Health Organization, Oral Health Programme, Geneva, Switzerland;
3. University “Alexandru I. Cuza”, Iași, România

Abstract. The aim of this longitudinal study is to put in evidence the changes in attitudes and behaviors in oral health. Our recommendation is that a healthy behavior is the main way in order to implement the objectives of the WHO, as 75% from youth ought to have enough knowledge about etiology and prevention in oral health in general. **Material and methods.** Two lots were performed in 1993 and 2003: 322 mothers and 97 schoolteachers and 278 mothers and 197 schoolteachers, respectively. The main tool was a questionnaire focused on the etiological factors of the dental care and parodontopathies and treatment methods. The items were related to qualitative data as parental support related to attitudes and information in oral health area. We mention that in 1992 in Romanian children aged 12 years the mean value of DMFT and DMFS was 4 and, 6, respectively (5). **Results.** The study shows a rising in the subject knowledge and information in oral health area from 20-30% up to 40%. The observed information knowledge improvement from the year of 2003 is statistical significant for factors which contribute in dental decay, gum bleeding, healthy nutrition, daily dental brushing, TV information sources. **Conclusion.** Our study showed the positive evolution of the teachers' beliefs about the necessity of schoolchildren education in oral health area. In the same time the quality and quantity information in the studied subjects significantly arise in time.

Key words: education, behavior, attitudes, oral health

Rezumat. **Obiectivul** acestui studiu de tip longitudinal este evaluarea modificărilor atitudinilor și comportamentelor în sănătatea orală. Recomandarea noastră este de a considera comportamentul sănătos ca țintă principală în implementarea obiectivelor OMS, conform căruia 75% dintre tineri au obligația de a avea suficiente cunoștințe referitoare la etiologia și prevenția în sănătatea orală în general. **Material și metode.** S-au folosit două loturi în anii 1993 și 2003: 322 mame și 97 profesori și respectiv 278 mame și 197 profesori. Instrumentul de lucru a fost un chestionar axat în principal pe factorii etiologici ai afecțiunilor dentare și parodontopatii și metode de tratament. Itemii au scos în evidență date calitative precum suportul parental, relativ la atitudini și informații din sfera sănătății orale. Menționăm că în 1992, copiii cu vârsta de 12 ani din România aveau indicii DMF-t și DMF-s de 4, respectiv 6. **Rezultate.** Studiul demonstrează creșterea nivelului cunoștințelor și informațiilor în aria sănătății orale ale persoanelor studiate de la 20-30% la aproximativ 40%. Îmbunătățirea informațiilor evidențiate de studiul nostru în anul 2003 relevă factorii care contribuie la caria dentară, sângerare gingivală, nutriție sănătoasă, periajul zilnic dentar, surse de informație TV. **Concluzii.** Studiul arată evoluția pozitivă a convingerii profesorilor asupra necesității educației elevilor în aria sănătății dentare, precum și a calității și cantității informației. **Cuvinte cheie: educație, comportament, atitudini, sănătate orală**

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INTRODUCTION

Poor oral hygiene practices have been cited by many studies as an important factor among the causes of periodontal disease. Correction of poor oral hygiene practices is the most effective means of preventing periodontal disease and is brought about through education and motivation of patients. Education for oral health is a process which motivates, informs and helps persons to adopt and maintain the health practice and life style (1-4). Health education is a combination to find chances and to offer voluntarily to adapt to behaviors who leads to health (5). It was well documented in oral health as well as in other health areas that the right information or self knowledge do not lead to the desired necessary behavior (6). However, the obtained knowledge may serve as an instrument to lead the population to right information about health and technology, making the people to act for protecting their own health (7).

The importance of knowledge in the educational process for health is well understood by examining the consequence of incorrect information or the lack of information concerning preventive procedures.

Regarding the children, they learn the good practices in oral hygiene by observing the adults attitudes and action as well as they are listening to their words. Parents and teachers are the significant persons that have a great influence on young people. Child education begins long time before the dentist meets him directly. The best place for the information is in the

classroom, combining the good practices in their home.

Parents, teachers and dentists are mainly responsible of oral health good practices.

The children learn by observing and perceiving and in the same time learn by doing. The educational intervention supposes the existence of communication relation (5).

Research has shown that a fundamental error in many oral health education activities in the assumption that increasing a patient's oral health knowledge will help change dental care behavior. This approach, based on a solely cognitive model, may be illustrated:

Knowledge → Attitude → Behavior change (7).

The aim of this longitudinal study is to put in evidence the changes in attitudes and oral health relationships. We propose that a healthy behavior is the main way in order to implement the objectives of the WHO, as 75% from youth ought to have enough knowledge about etiology and prevention in oral health in general.

MATERIAL AND METHODS

The present longitudinal study was performed both in Iași and Bucharest with the same methodology in the year of 1993 and 2003. Two lots were performed: 322 mothers and 97 schoolteachers in the year 1993 and 278 mothers and 197 schoolteachers in 2003.

The questionnaire focuses on the attitude and oral health knowledge, information sources, mother's and children behavior regarding oral health, children's parental support in

oral health, the evaluation of the children actual oral health, estimation of the knowledge level of teachers and children concerning dentinal affections. Questionnaire was applied both mothers and schoolteachers.

The structure of the questionnaire contains also open questions in order to offer freedom to the subjects in order to express by them.

RESULTS AND DISCUSSIONS

The question concerning the etiological factors of dental decay allows us to assess the mothers and schoolteachers information about etiological factors of dental decay. The main etiological factors both in mothers and schoolteachers are bacteria, sugar, and both together with poor oral hygiene (fig 1).

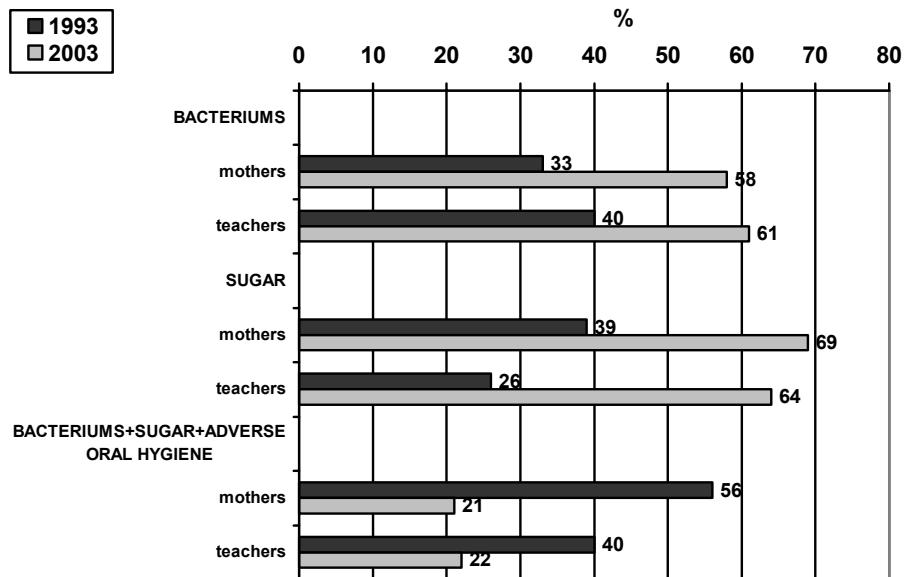


Fig. 1 The frequencies of dental decay etiology - mothers and schoolteachers answers

After ten years, the frequency of mothers and schoolteachers knowledge about bacteria and sugar as risk factors arise are statistically significant improved ($p < 0.001$).

Bacteria and sugar together with poor oral hygiene are incriminated as the main risk factors of decay with almost the same frequency in mothers and teachers (21% and 22% respectively) as figure 1 shows.

The frequency of mothers that incriminate the sugar in dental decay is almost the same with the frequency of schoolteachers (69% vs 64%: $p > 0.05$). Although in the first year of the study, the frequency of mothers who incriminated both bacteria, sugar and an inappropriate oral hygiene was significant higher than schoolteachers (56% vs 40%: $p < 0.001$), in 2003, they

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answered almost in the same way (21% vs 22%: $p>0.05$). Related to gum bleeds, both mothers and schoolteachers consider it as the

main indicator of the poor oral hygiene (79% vs 63%: $p<0.001$ in 1993 and 74% vs 72%: $p>0.05$ in 2003) (fig. 2).

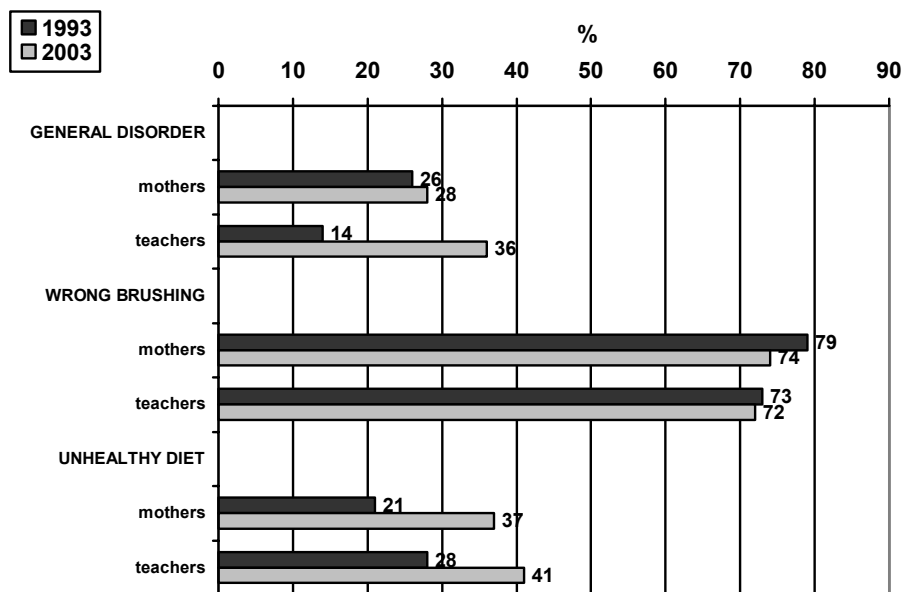


Fig. 2 The frequencies of the gum bleeds- mothers and schoolteachers answers

Specifically, the frequency of both mothers and schoolteachers which associate gum bleeds with general disorders, is lower and with no statistical significance for mothers answers between the two years.

Mothers and schoolteachers consider as the main factors which are involved in prevention of decay: dental brushing, regular visits to the dentist, fluor use, sugar avoidance (fig 3).

Dental brushing and regular visits to the dentist register almost the same frequency for mothers' answers in the

two studied years. The frequency of both mothers and schoolteachers related to the use of fluoride increased significant after 10 years (46% to 65%: $p=0.001$ and 41% to 62%: $p<0.001$ respectively). Concerning sugar avoidance, the frequency raised significant in magnitude (26% to 46% and 24% to 45%: $p<0.001$).

There are many circumstances and associations in which sugar is used: in sweet drinks, candies, combination with milk, coffee, tea (fig. 4).

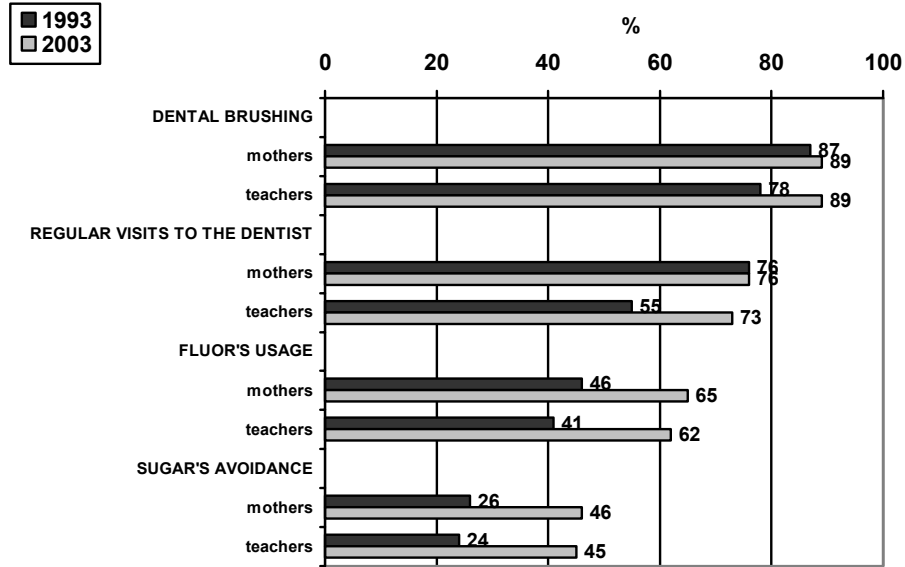


Fig. 3 The frequencies of decay prevention-mothers and teachers answers

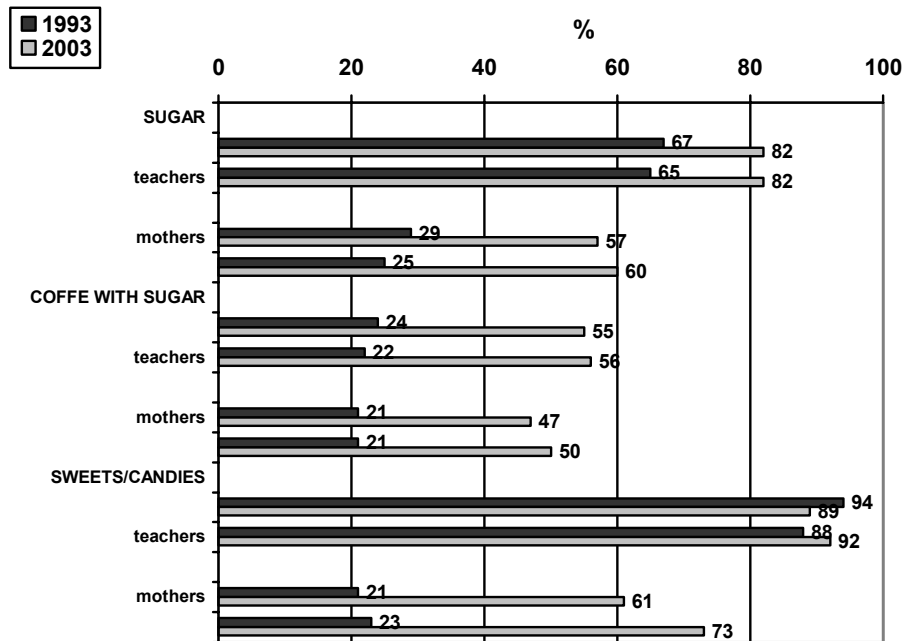


Fig. 4 The frequencies of the sugar use - mothers and teachers answers

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The frequencies have significant increased ($p < 0.001$) concerning the intake of sugar (67% to 87% and 65% to 87%), milk with sugar (29% to 57% and 25% to 60%), coffee with sugar

(24% to 55% and 22% to 56%), sweet drinks (21% to 61% and 23% to 73%) both in mothers and schoolteachers after 10 years (fig. 5).

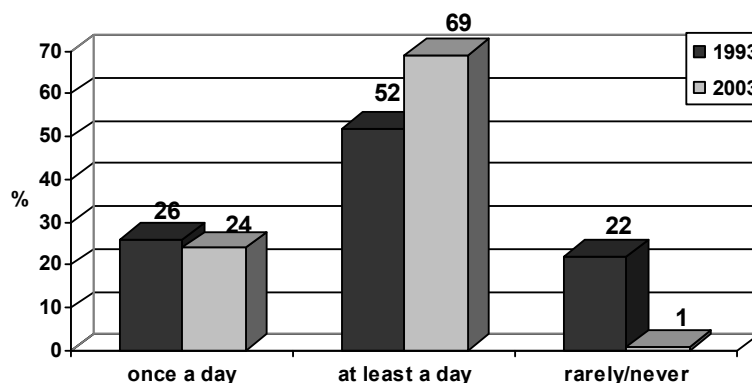


Fig. 5 The frequencies of dental brushing in children – mothers answers

Sweet candies are considered as the most important nutrient inducing dental decay (about 90% from mothers and schoolteachers).

Brushing frequency is also a main factor in maintaining an appropriate oral health.

According to the answers of mothers, the frequency of children who used teeth brushing at least twice a day has significantly increased in the year of 2003 in comparison with 1993 (52% to 69%: $p < 0.001$).

Information source as a factor which can improve healthy behavior was considered by the questionnaire.

Information provided by television, magazines and books were the most important sources of information, both in mothers and schoolteachers (fig.6). The frequencies of both mothers and schoolteachers have significantly increased after 10 years concerning TV (41% to 65%: $p < 0.001$ and 39% to 71%: $p < 0.001$) and magazines (31% to 42%: $p = 0.005$ and 35% to 55%: $p < 0.001$), as main sources of information. Books are not considered an important source used by children (55% to 37% and 61% to 38%: $p < 0.001$ respectively).

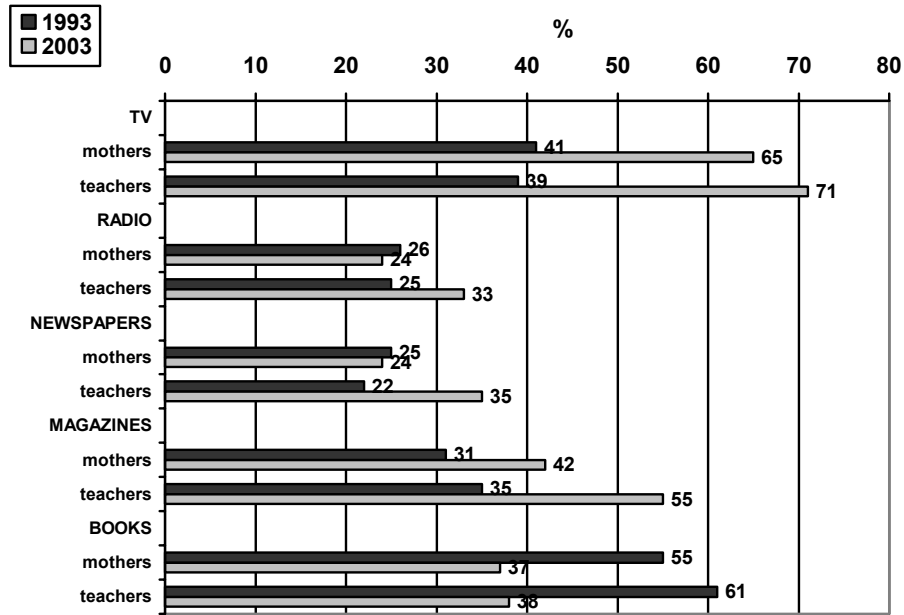


Fig. 6 Information source

CONCLUSIONS

Our study pointed out the positive evolution of both mothers and schoolteachers beliefs about the necessity of schoolchildren in oral health area. The quality and quantity of information raised in time.

After ten years, the frequency of mothers and schoolteachers knowledge about bacteria and sugar as risk factors arise are statistically significant improved ($p < 0.001$).

Bacteria and sugar together with poor oral hygiene are incriminated as the main risk factors of decay with almost the same frequency in mothers and teachers (21% and 22% respectively) Related to gum bleeds, both mothers and schoolteachers consider it as the main indicator of the poor oral hygiene

(79% vs 63%: $p < 0.001$ in 1993 and 74% vs 72%: $p > 0.05$ in 2003).

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