Working together
www.rcis.ro

Revista de Cercetare si Interventie Sociala

ISSN: 1583-3410 (print), ISSN: 1584-5397 (electronic)

PROMOTING ORAL HEALTH THROUGH EDUCATION AND PREVENTION PROGRAMS

Mihaela ADOMNICAI, Angela Codruta PODARIU, Ruxandra SAVA-ROSIANU, Andrada Christine SERAFIN, Mioara Raluca COSOROABA, Sergiu Alexandru TOFAN, Alina Doina TANASE

Revista de cercetare și intervenție socială, 2020, vol. 71, pp. 137-148

https://doi.org/10.33788/rcis.71.9

Published by:
Expert Projects Publishing House

expert projects
publishing

On behalf of:
„Alexandru Ioan Cuza" University,
Department of Sociology and Social Work
and
HoltIS Association

REVISTA DE CERCETARE SI INTERVENTIE SOCIALA
is indexed by Clarivate Analytics (Social Sciences Citation Index),
SCOPUS and CROSSREF

Promoting Oral Health through Education and Prevention Programs

Mihaela ADOMNICAI[1], Angela Codruta PODARIU[2], Ruxandra SAVA-ROSIANU[3], Andrada Christine SERAFIN[4], Mioara Raluca COSOROABA[5], Sergiu Alexandru TOFAN[6], Alina Doina TANASE[7]

Abstract

Health education is a key element in health promotion and requires strong planning based on theories of medical behavior. The study was conducted over a period of three years, January 2015 - December 2017, by means of an 11 items questionnaire anonymous applied to dentists or medical staff. Seven questions were multiple choice to allow a broader discussion of the results and the rest were one answer. The time of dental practitioners is limited, so their view of the duration of a possible dental health program is essential. Hours per week volunteered, vary from one doctor to another: from 1-3 hours or less to 3-5 hours or as needed. Assessing the willingness to engage (82%) and the time allocated to the dentists surveyed (44% between 1 and 3 hours per week and 51% over 3 hours per week), we can say that we have human resources for implementing an oral health project. The

[1] University of Medicine and Pharmacy "Victor Babes" Timisoara, ROMANIA; "Vasile Goldis" Western University of Arad, Faculty of Dentistry, Arad, ROMANIA. E-mail: mihaelaadomincai@yahoo.com

[2] University of Medicine and Pharmacy "Victor Babes", Department of Preventive, Community Dentistry and Oral Health, Faculty of Dentistry, Timisoara, ROMANIA. E-mail: podariuangela@gmail.com

[3] University of Medicine and Pharmacy "Victor Babes", Department of Preventive, Community Dentistry and Oral Health, Faculty of Dentistry, Timisoara, ROMANIA. E-mail: savarosianu@yahoo.com (Corresponding author)

[4] University of Medicine and Pharmacy "Victor Babes", Faculty of Dentistry, Timisoara, ROMANIA. E-mail: andrada_serafin@yahoo.ro

[5] University of Medicine and Pharmacy "Victor Babes", Faculty of Dentistry, Timisoara, ROMANIA. E-mail: raluca.cosoroaba@gmail.com

[6] University of Medicine and Pharmacy "Victor Babes", Faculty of Dentistry, Timisoara, ROMANIA. E-mail: dr.tofansergiu@gmail.com

[7] University of Medicine and Pharmacy "Victor Babes", Faculty of Dentistry, Timisoara, ROMANIA. E-mail: tanasealinadoina@gmail.com

workforce in the field of oral health would like to be involved in such a program and believes that it could benefit from such a program and the construction of appropriate working mechanisms, especially designed for different regions, rural areas and diverse demographic of social categories.

Keywords: oral health, oral health education, public health prevention, oral health behavior, planning, vulnerable families, social welfare.

Introduction

In Romania, the increased incidence of dental caries is undoubtedly due to a causal conjuncture represented by the combination of direct and indirect risk factors. Manifested through economic, demographic and nutritional transitions like incorrect habits for oral cavity care, limited use of fluoride and lack of oral health services. Differences in oral health and service use exists for population groups of all ages. (Poutanen *et al*., 2006). In our country, a significant proportion of children are not adequately targeted by the prevention of oral diseases and the promotion of health in the context of public health programs (Chimere *et al*., 2016; Redmond *et al*., 1999).

Health education is a key element in health promotion and requires strong planning based on theories of medical behavior (Friel *et al*., 2002; Tai *et al*., 2001; Frenkel *et al*., 2002). Oral health has been shown to be easily integrated into such health activities at school (Freitas-Fernandes *et al*., 2002; Mariño *et al*., 2004; Peng *et al*., 1997) A handbook on how to integrate oral health into schools, as well as recommendations on how to assess the promotion of oral health in the community and disease prevention were developed by the WHO (Petersen *et al*., 2004; Vachirarojpisan, Shinada, & Kawaguchi, 2005; Chapman *et al*., 2006).

Oral health education is provided in a variety of ways, using a wide range of techniques and materials that address oral health topics ranging from diet, oral hygiene, tobacco, oral, oral health benefits, and oral piercings. Diet and oral hygiene and its impact on oral health are likely to be the most approached. Oral health education must be based on the principles of active involvement and reinforcement. A lot of studies show that children's orthodontic health education can have a limited impact (Kowash *et al*., 2000; Kassebaum *et al*., 2015). If oral health education is combined with additional activities and provided on a regular basis, health education is likely to have a positive impact on oral health behavior and the adolescent's oral health. (Naaman *et al*., 2017; Mattheus & Shannon, 2018).

Oral-dental diseases qualify as major public health problems due to their prevalence and incidence in all regions of the world, and like for all diseases the

greatest burden of oral health issues lies on the disadvantaged and marginalized socio-economical categories of people.

Habits related to general health and oral health in children are largely determined by their family environment, so oral care habits come from that environment. The family's influence on children's health and oral care has been well documented in many studies, and parents have been at the heart of efforts to prevent the development of oral illness (Ahovuo-Saloranta *et al*., 2013; Bromo *et al*., 2011). Oral health behaviors of children are formed from an early age. The formation of those behaviors among very young children depends on their mothers/ careers, who may need support from medical staff or personal documentation. Knowing these realities, efforts must be made to improve the oral health knowledge and thus only be relatively neglected the correct oral care habits from the earliest years of life (Jones *et al*., 2000; Lee *et al*., 2004).

Each European Union Member State (EU) develops its own educational and informational system, with its own teaching methods and related materials. The EU, on the other hand, supports national activities of common interest, and the European Commission has created several platforms with teaching materials that physicians, teachers and other interested persons can distribute as their own materials and resources. The doctor is a representative of science that mediates, through methods, access to knowledge. The aim of the study was to propose efficient indicators for a possible national oral health project.

Methodology

The study design was a retrospective study spread over three years (January 2015 - December 2017), aimed mainly at improving the oral health of primary school children in Timis County of Romania and assessing the impact of oral health on their quality of life.

The expected results were to outline an oral health program with the active participation of dentists and professionals in this field, starting from their opinions and their willingness to be involved in oral health education projects.

Oral communication methods - exposure methods: (1) *Explanation*: disclosures, clarification of situations, relationships, laws, hypotheses, require logical analysis and reasoning of facts or knowledge; (2) *Story*: narrative exposure, plastic and emotional; (3) *Description*: analytical presentation of subjects and phenomena; (4) *Lecture*: the systematic exposure of a large amount of knowledge.

Methods of oral communication - conversational methods: (1) *Conversation*: dialogue achieved through a series of questions and answers; (2) *Debate*: organized exchange of ideas and opinions; (3) *Variation*: group discussion, "round table", brainstorming, etc.; (4) *Problem*: presenting problem situations, with several

alternatives to solve, which generate pre-school / pupils / students / pregnant / disabled people with doubt, uncertainty, curiosity and the desire to discover the solution / solutions.

Fundamental and applied research conducted on target groups focuses on the following three research directions: (1) Staff involved in education projects / programs - staff to be involved - project team; human resource management from projects / programs; (2) Establishment of the target groups to which the project / promotion program and educational themes relate in correlation with the age group of the target group; (3) Means and methods related to target groups - described articles on communication strategies for teenagers.

The study was conducted over a period of three years, January 2015 - December 2017, in which a questionnaire of 11 questions was applied to dentists or dental office employees. The applied questionnaires were anonymous so that the answers received were sincere. Seven questions from eleven were multiple choices to allow a broader discussion of the respondents.

Setting up the target group

The target group for this study was dental practitioners because they are best suited to answer questions in the questionnaire. They are the main participants in orthodontic health promotion programs, even if they do not do it personally, but they are directing the dental assistants or dental hygienists in this process. The time of dentists is limited, so their view of the duration and time of a possible dental health program is essential. Both dentists with private practices and physicians practicing in school or university dental practices were introduced into the study.

Sample setting

The target group sampling was a conventional one, convenient because it involves choosing the components of the sample in the simplest possible way: by dropping in and performing short interviews with the dental practitioners who were at work. This is a very economic method, which produces a sample that cannot be representative of a population or community. The resulting conclusions, of course, cannot be generalized at the level of the population concerned. However, it is a useful method for exploratory research, as in this case, which will then be followed by descriptive research involving probabilistic probes.

Going along this principle, 187 dentists were approached, which corresponded to the criteria for inclusion in the preset study, but 37 doctors were excluded, and the cooperation with them was not achieved. 15 of the excluded dentists from the study were not found in the workplace, 5 categorically refused to collaborate for this study, 15 had elusive answers, were not careful about applying the questionnaire, and 2 said they did not do more in the last year for six months for various reasons, so the sample eventually comprised 150 doctors/ dental prophylaxis.

Table 1. The work place of the dental doctors or dental prophylaxis

Work place	Frequency (%)
Dental school office	0 (0%)
Individual dental office/ dental clinic	69 (46%)
University	36 (24%)
University + individual dental office/dental clinic	45 (30%)

Inclusion and exclusion criteria in the sample: (1) *Inclusion criteria*: Be a dentist/ person which work in dental clinic; have a maximum age of 55, to practice in Timis county; want to study; (2) *Exclusion criteria* were: do not want to answer all the questions; not to be at work when searched during work hours; to be over 55; not to be cooperative in the application of the questionnaire.

Statistical analysis of the data in the questionnaire

The statistical processing was done with the Excel programs in the Microsoft Office 16 and SPSS v.19 package. For numeric variables, averages, standard deviations, 95% confidence intervals, and value ranges were determined. The associations between them were determined by the analysis of the linear correlation and the calculation of the Spearman correlation coefficient (being variable type). The nominal variables were analyzed by frequency tables, and comparisons and associations were determined using the Chi-square (x^2) concordance test.

Results

The time of dentists is limited, so their view of the duration and time of a possible dental health program is essential. Hours per week vary from one doctor to another: from 1-3 hours or less to 3-5 hours or as needed. Assessing the willingness to engage (82%) and the time allocated to the dentists surveyed (44% between 1 and 3 hours per week and 51% over 3 hours per week), we can say that we have human resources for an oral health project at any time.

The oral health program should include the following projects: health education; Oral hygiene (Oral-dental evaluation with bacterial dental plaque visualization) with correct brushing techniques, professional hygiene and detoxification - 88% of the subjects surveyed; visualization of oral cavity with intra-oral chamber - 18% of respondents; explaining the correct dental brush technique, its auxiliary means, with examples on the macromodel - 96% of the subjects; application of questionnaires for assessing the knowledge of oral hygiene - 20% (table 2)

For an oral health project to achieve all its objectives, the implementation period should be at least 2 years (66% - of which 42% believe it should be implemented for a period of twelve years and 24% for a period of three to five years).

Table 2. The potential involvement of the dentists in the development of a dental health project

	N	%
Involvement in a program to promote oral health in the past		
Yes	48	32%
No	102	68%
The desire to be involved in future oral health projects		
Yes	123	82%
No	12	8%
Don't know	15	10%
Time devoted to participation in oral health programs in the past		
Less than an hour	6	5%
1 - 3 hours	48	44%
3-5 hours	33	27%
As needed	30	24%
Staff who should be involved in oral health promotion projects		
Dental practitioners or dental hygienists	19	54%
Dental School Educators	36	88%
Dentists from the private environment	24	70%
Students at the Faculty of Dental Medicine	50	82%
Teachers from the Discipline of Public Dental Health	21	56%
Materials required for an oral health program		
Posters	144	96%
Questionnaires	87	56%
Flyers	129	86%
Laptop	69	58%
Target group in future oral health programs		
Preschoolers	126	84%
Students	132	86%

Pregnant women	57	38%
Elderly	24	16%
The active component of an oral health program		
Oral-dental evaluation with bacterial dental plaque visualization	132	88%
Viewing the oral cavity with the intraoral chamber	27	18%
Explanation of the correct dental brush technique, its auxiliary means, with examples on the micromodel	147	96%
Applying questionnaires	30	20%

Discussion

This study looked at oral health programs that have been concluded and are under way, in which we have been looking at the period, the premises, the way of implementation and the results of the health promotion programs carried out at the level of the Timiş County and of the national ones, implemented by the state in other regions.

The overall aspect of the study is to outline an oral health promotion program in relation to the availability and desires of dentists both in the private environment and in the state environment.

The target population of these health programs are pregnant women, pre-school children, school children, adolescents, elderly people, and people with disabilities (Miller, 2005; Kaneilis, 2000). The most successful programs for children and adolescents are those in kindergartens / schools / high schools / universities. Members of groups promoting oral health may be physicians, students of dental or general medicine, nurses, dental asistants, but may also be people from other fields of activity who have undergone a training course and specialization in promoting oral health (Nurko *et al*., 2000; Weber-Gasparoni *et al*., 2013).

Material resources useful in promoting oral health are posters, flyers, questionnaires, models, short films and other materials offered by various sponsors to inform the public about good oral hygiene. The funds can be obtained from the Ministry of Health and subordinate units, the National Health Insurance House, sponsors such as companies producing oral hygiene products, but also the European Union's help to the World Health Organization.

Management of an oral health project according to the study described above should include: (1) *Human Resources Management*: (a) The staff involved are mainly dental school doctors and faculty, followed by students from the University of Dental Medicine and then by dentists from the individual dental practices; (b) The target group on which future studies are to be addressed are preschoolers and middle school students; (c) The institutions involved should be mainly the Ministry of Health, the National Health Insurance House, the Individual Medical Offices and the European Union; (2) *Material Resources Management*: (a) Materials used for educational purposes should mainly be: posters, flyers; (b) To carry out the research requires pills or revealing substances of bacterial plaque, macromodels, toothbrushes and toothpastes, questionnaires; (c) Financial resources should be sought primarily at the Ministry of Health, the European Union or sponsors, such as oral hygiene manufacturers;

An effective oral health program should include the following: (1) *Health education*: (a) supporting oral health micro-courses with demonstration of illustrative materials in schools and pre-school institutions; (b) broadcasting of television and radio programs and demonstration of popularization and cartoons, videos with education-sanitary message; (c) distribution of guides, plans and agendas, story books on oral disease prevention - children, pregnant women, parents, school pedagogues and children's kindergartens; (d) conducting a national contest and exhibition of drawings, with an oral preventive theme; (e) questioning the population to determine the efficiency of health education of teachers, parents and children; (2) *Oral hygiene*: (a) assimilation of the correct brushing technique in children's collectives; (b) providing orphaned children and socially vulnerable families with oral hygiene remedies from extra-budgetary resources; (c) controlling the oral hygiene by the doctor or individual by children, with tablets, with substances relevant to the visualization of the bacterial plaque; (3) *Rationalizing Food*: (a) establish a national child nutrition program that provides for: children (kindergartens, schools, etc.); (b) ensuring the reduction of the consumption of pastry products, sugars in the food ration in the children's colleges due to the increased consumption of fruits, vegetables, juices, dairy products.

These studies have shown that oral health education is effective in improving the knowledge and oral health of the target population when significant others are involved, the involvement of other significant actors such as teachers and parents, particularly in the oral health education of school children, an amount greater change in improving oral health in children (Fuller *et al*., 2014; Mattheus 2014; Popovici *et al*.,, 2017).

Inclusion of an oral prophylactic component in oral health education programs would bring a greater amount of improvement in gingival health (Mohebbi *et al*., 2009). Since oral health programs have proven to be more effective than oral health education, this approach should be taken to improve the target population; in such programs, promoting health requires us not only to improve lifestyle but also to improve the environment in which lifestyle choices can be made (Matichescu *et al*., 2016).

Improving the oral health of children, families and communities, clearly requires concerted efforts by several stakeholders; thus, the measurable and sustainable improvement of children's oral health will also require the integration of dental education with other medical and social disciplines (Mouradian 2001; Podariu *et al*., 2017). In addition to engaging in dental and allied health professions, future interventions aimed at improving children's oral health should consider the reality of the families and communities in which they live, realizing that they are the major influences of promoting oral and general health, including access to nutrition healthcare, healthcare, social welfare networks and even day care (Roberts & Condon, 2014)

Conclusion

The present findings could provide some implications both for the design of a national orthodontic health education program and for decision-makers in the promotion and funding of such a program. Extending the coverage of the national program could bring benefits to preschool children, school-age children who are at an early stage of permanent dentition, reducing not only the prevalence of dental caries, but also changing their knowledge, attitudes and practices related to oral health. The workforce in the field of oral health would benefit from being involved in such a program and believes that it could develop from such a program by learning how to construct appropriate working mechanisms, especially designed for different regions, rural areas, and different social categories. Respecting the rapid development of dental caries combined with an increasingly unhealthy eating habits and a vicious lifestyle in terms of cultural habits, oral and dental health should be placed as one of the top priorities by the government's public health departments, especially for children's welfare, which must be the cornerstone of the country's future.

Recommendations

The strongest inequalities in oral health are found with regards to dental caries, so to achieve a reduction in oral health problems, trying to reduce known inequalities in oral health would be necessary. Therefore we recommend the implementation of effective and adequate health promotion policies, through the

national school curriculum and the introduction of oral health education in the annual school curriculum, focusing on awareness of oral health problems, age, the importance of proper oral hygiene and the implementation of a healthy lifestyle slowly but effectively in the population.

References

Ahovuo-Saloranta, A., Forss, H., Walsh, T., Hiiri, A., Nordblad, A., Mäkelä, M., Worthington, H.V. (2013). Sealants for preventing dental decay in the permanent teeth. *Cochrane Database Syst Rev*. (3), CD001830, DOI: 10.1002/14651858. CD001830.pub4.

Bica, A., Podariu, A.C., Krems, C.D., Podariu, A.S., Popovici, R.A. (2016). Tooth Brushing Behavior in 6-11 Year Olds Children and the Importance of a Break of Tooth Brush Once a Day in School. *Revista de Cercetare si Interventie Sociala*, *54*, 115-124.

Bromo, F., Guida, A., Santoro, G., Peciarolo, M.R., &Eramo S. (2011). Pit and fissure sealants: review of literature and application technique. *Minerva Stomatology, 60,* 529-541.

Chapman, A., Copestake, S.J., Duncan, K. (2006). An oral health education programme based on the National Curriculum. *International Journal Paediatric Dentistry, 16,* 40-44, DOI: 10.1111/j.1365-263X.2006.00677.x

Chimere, C., Collins, L. Villa-Torres, L.D., Sams, L.P., Zeldin, K.D. (2016). Framing Young Childrens Oral Health: A Participatory Action Research Project, *PLOS One*, *11*(8), e0161728, DOI: 10.1371/journal.pone.0161728.eCollection 2016.

Freitas-Fernandes, L.B., Novaes, A.B.Jr, Feitosa, A.C., Novaes, AB. (2002). Effectiveness of an oral hygiene program for Brazilian orphans. *Brazilian Dentistry Journal, 13,* 44-48.

Frenkel, H., Harvey, I., & Needs, K. (2002), Oral health care education and its effect on caregivers' knowledge and attitudes: A randomised controlled trial. *Community Dentistry Oral Epidemiology*, *30,* 91-100, DOI: 10.1034/j.1600-0528.2002.300202.x.

Friel, S., Hope, A., Kelleher, C., Comer, S., & Sadlier, D. (2002). Impact evaluation of an oral health intervention amongst primary school children in Ireland. *Health Promotion International, 17,* 119-26, DOI: 10.1093/heapro/17.2.119.

Fuller, L.A., Stull, S.C., Darby, M.L., & Tolle, S.L. (2014), Oral health promotion: knowledge, confidence, and practices in preventing early-severe childhood caries of Virginia WIC Program Personnel. Dental Hygiene, *88*(2), 130-140.

Jones, C.M., Tinanoff, N., Edelstein, B.L. *et al*. (2000). Creating partnerships for improving oral health of low-income children. *Journal of Public Health Dentistry, 60*(3), 193-196.

Kaneilis, M.J. (2000). Caries risk assessment and prevention: strategies for Head Start, Early Head Start, and WIC. *Journal of Public Health Dentistry, 60*(3), 210-217, DOI:10.1111/j.1752-7325.2000.tb03330.x.

Kassebaum, N.J., Bernabé, E., Dahiya, M., Bhandari, B., Murray, C.J., Marcenes, W. (2015). Global burden of untreated caries: a systematic review and metaregression. *Journal of Dental Resources, 94,* 650-658, DOI:10.1177/0022034515573272.

Kowash, M.B., Pinfield, A., Smith, J., Curzon, M.E. (2000). Effectiveness on oral health of a long-term health education programme for mothers with young children. *British Dentistry Journal, 188,* 201-5, DOI: 10.1038/sj.bdj.4800431.

Lee, J.Y., Rozier, R.G., Norton, E.C., Kotch, J.B., Vann, W.F. Jr. (2004). Effects of WIC participation on children's use of oral health services. *American Journal of Public Health, 94*(5), 772-777, DOI:10.2105/ajph.94.5.772.

Mariño, R., Calache, H., Wright, C., Schofield, M., & Minichiello, V. (2004). Oral health promotion programme for older migrant adults. *Gerodontology, 21,* 216-225, DOI: 10.1111/j.1741-2358.2004.00035.x.

Matichescu, A., Matichescu, M.L., Ogodescu, A.S., Luca, M.M., Rosu, S. (2016). Oral Hygiene Behaviour. Case Study of Primary School Children from Timis County. *Revista de Cercetare si Interventie Sociala*, *54*, 142-155.

Mattheus, D. (2014). Efficacy of Oral Health Promotion in Primary Care Practice: Creating Positive Changes in Parent's Oral Health Beliefs and Behaviors. *Oral Health and Dental Management, 13,* 584.

Mattheus, D., & Shannon, M. (2018). Education, and Access: Kona Hawai'i WIC Oral Health Pilot Project. *Hawaii Journal of Medicine Public Health*, *77*(9), 220-225.

Miller, F.Y. (2005). The utilization of dental hygiene students in school-based dental sealant programs. *Journal Dental Hygiene*, *79*(4), 11.

Mohebbi, S.Z., Virtanen, J.I., Vahid-Golpayegani, M., Vehkalahti, M.M. (2009). A cluster randomized trial of effectiveness of educational intervention in primary health care on early childhood caries. *Caries Research, 43,* 110-118, DOI:10.1159/000209343.

Mouradian, W.E. (2001). The face of a child: children's oral health and dental education. *Journal Dental Education, 65*(9), 821-831.

Naaman, R., El-Housseiny, A.A., & Alamoudi, N. (2017). The Use of Pit and Fissure Sealants - A Literature Review. *Dental Journal*, *5,* E34, DOI:10.3390/dj5040034.

Nurko, C., Skur, P., & Brown, J.P. (2003). Caries prevalence of children in an infant oral health educational program at a WIC clinic. *Journal of Dentistry for Children, 70*(3), 231-234.

Peng, B., Petersen, P.E., Tai, B.J., Yuan, B.Y., & Fan, M.W. (1997). Changes in oral health knowledge and behaviour 1987-95 among inhabitants of Wuhan City, PR China. *International Dentistry Journal, 47,* 142-147, DOI:10.1002/j.1875-595x.1997.tb00779.x.

Petersen., P.E., Peng, B., Tai, B., Bian, Z., & Fan, M. (2004). Effect of a school-based oral health education programme in Wuhan City, Peoples Republic of China. *International Dentistry Journal, 54,* 33-41, DOI: 10.1111/j.1875-595x.2004.tb00250.x.

Podariu, A.S., Podariu, A.C., Popovici, R.A. (2017). Communication Strategy on Oral Health Education for Adolescents. *Revista de Cercetare si Interventie Sociala*, *58*, 68-80.

Popovici, R.A., Podariu, A.C., Anculia, R.C., Serafin, A.C., Tigmeanu, C.V., Krems, C.D., & Levai, M.C. (2017). Accessibility to Dental Health Care: Risk Factor in Oral Health at Rural Area Community. *Revista de Cercetare si Interventie Sociala*, *59*, 48-61.

Poutanen, R., Lahti, S, Tolvanen, M., & Hausen, H. (2006). Parental influence on children's oral health-related behavior, *Acta Odontologica Scandinavica, 64*(5), 286-292, DOI: 10.1080/00016350600714498.

Redmond, C.A., Blinkhorn, F.A., Kay, E.J., & Davies, R.M. (1999). Worthington, H.V., Blinkhorn, A.S., A cluster randomized controlled trial testing the effectiveness of a school-based dental health education program for adolescents. *Journal Public Health Dentistry, 59,* 12-27, DOI: 10.1111/j.1752-7325.1999.tb03229.x.

Roberts, K., & Condon, L. (2014). How do parents look after children's teeth? A qualitative study of attitudes to oral health in the early years. *Community Practice*, *87*(4), 32-35.

Tai, B., Du, M., Peng, B., Fan, M., & Bian, Z. (2001). Experiences from a school-based oral health promotion programme in Wuhan City, PR China. *International Journal Pediatric Dentistry*, *11,* 286-291, DOI: 10.4103/2231-0762.127810.

Vachirarojpisan, T., Shinada, K., & Kawaguchi, Y. (2005). The process and outcome of a programme for preventing early childhood caries in Thailand. *Community Dentistry Health*, *22,* 253-259.

Weber-Gasparoni K, Warren, J.J., Reeve, J., *et al*., (2013). An effective psychoeducational intervention for early childhood caries prevention: Part II. *Pediatric* Dentistry, *35*(3), 247-251.

Weber-Gasparoni, K., Reeve, J., Ghosheh N, *et al*. (2013). An effective psychoeducational intervention for early childhood caries prevention: part I. *Pediatric Dentistry, 35*(3), 241-246.