



Project Healthy Smile in the Slovak Republic



AIM

The main aim of the project is education to health through activists. Activist as a school assistant (SATC - School Assistant of Teeth Care) practises education to health with children in pre-school institutions, primary schools, sanatoriums in a way of repeated exercises, 6 times per a school year in each class. The aim of these exercises is to lead children to the right care of their health.

The 1st period of the project begins with care of teeth and gums. That should gradually contribute to reduction of teeth decays in Slovakia.

The 2nd period of the project - prevention of infections, venereal diseases, drug addiction, alcohol, bad habits are gradually involved into the exercises according to the age.

This project is based on Swiss project about dental care which has been implementing for 40 years. The result is decline in teeth decays thus 12 years old child has less than one tooth decay on average. It belongs to the best in the world. It has been implementing in Slovakia since 1997 and in the Czech Republic since 1999.

STRUCTURE OF THE PLAN FOR SLOVAKIA

This plan is divided into 3 periods:

1. preparatory period (first year)

This period is determined for the formulation of progress in implementation of project.

First period - oral health - teeth and periodontitis care

- preparation of materials for project, papers for educational courses SATC;
- textbook, papers for exercises with children, books for exercises, books for courses
- book of fairy tales with preventive orientation for children of pre-schools and primary-schools (6 - 10 of age) - "Why the Wolf was lisping" - book with preventive orientation for primary-school children (11 - 15 of age) and for adults - "Healthy Teeth Throughout the Life or When Slovak will have healthy teeth"
- examination of dental health in the sample group of children in Prešov
- exercises with children
- promotion in the media



2nd period (second year)

- expansion of the project on the whole territory of country through the higher number of activists from unemployed women paid by villages and through grants

- integration of different care - the choice of problems according to the age - spinal care during the growth, sex education, hygiene - infections and venereal diseases (HIV - AIDS) - fight against - drugs, alcohol, smoking, other addictions, bad habits

- pass a bill-regulations about school care for children and young people within the bounds of towns and villages
- preparation of the subject "Education towards health" and its gradual implementation into curriculum

- control of dental health in the sample group of children - control of the successful achievement of project
- regular publishing of the magazine with information about project implementation



3rd period (third year)

- project implementation through activists paid by towns and villages of the country according to the law-regulations about school and national health care of children and young people with the grant support

- special leadership of project - volunteering doctors
- subject "Education towards health" included in curriculum of primary schools and pre-school institutions in the form of exercises led by activists

- evaluation of decline in occurrence of gums and teeth diseases, evaluation of increased consciousness and self-responsibility for our own health on the base of recognizing causes of diseases through gained education

Job description of the activist - SATC at exercising with children - 1st period of project. During the first school year 6 exercises in one classroom are realized. One exercise takes one lesson - 45 minutes, at pre-school institutions - 30 minutes. Content of the exercise: oral hygiene, fluoridation, anatomy, nutrition, origin of diseases - all that in suitable form for children. Content of each exercise is : cleaning teeth by toothbrush with fluorine gel plus special topic.

Structure of the exercise

At the beginning the activist introduces the content of the exercise, 5 minutes are devoted to the revision of the previous topic, 20 minutes to a new topic, 10 minutes to cleaning teeth, 5 minutes to revision of learnt problems. In the group of children till the age of 10, the attention is paid to avoiding the development of tooth decay, in the group of older children the attention is paid to avoiding inflammation - periodontitis. Content of the exercises changes due to age and skills of children. Content is developed by the administration of the project for exercises from the age of 3 to 15.

Expenses for exercises at primary school and pre-school institutions

| | |
|--|---------------------------------|
| 1 exercise for 1 classroom - á 30 children | |
| fluorine gel | 5 EUR : 20 children = 0,25 EUR |
| working paper | 2 EUR : 20 children = 0,10 EUR |
| finances for 1 SATC | 5 EUR : 20 children = 0,25 EUR |
| expenses for 1 exercise | 12 EUR |
| expenses for 1 child | 12 EUR : 20 children = 0,60 EUR |



HEALTHY SMILE PREVENTION PROJECT IN SLOVAKIA WITH STUDENTS DH KLINIK IN PREŠOV

Final Report of Study: Cariosity of Teeth Among Schoolchildren within Two Groups in Slovakia in 2002, 2005, and 2007.

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Summary

In the thesis the authors present complex results of the epidemiological study of oral health of the 7 - 12-year old schoolchildren attending elementary schools in Prešov (Slovakia) who participated in the Healthy Smile Prevention Project. The participants of the Project were represented by the pre-school children and schoolchildren from the age of 4 years attending the pre-school facilities and elementary schools and the project was performed by the dental hygienist, dental disease prevention officer, and school dental care assistant under supervision of a dental practitioner. The oral health of the abovementioned project participants was compared with the oral health of the group of children not participating in the prevention project. The project was supported by the Swiss company GABA.

Statistical Evaluation

Material and Method

Comparison Group Tested within Healthy Smile Project at Elementary Schools

The school dental care assistant - DH students called the schoolchildren of the tested group 6 times in the course of one school year. The school dental care assistant practised with children for the period of 45 minutes. In the course of the practising the school dental care assistant provided children with instructions about the correct technique of teeth cleaning using the Elmex-Gelee toothbrush. Each child was given the toothbrush and the sample of the Elmex toothpaste (approximately 9 millilitres). The children were examined during the period of three years. To check the effectiveness of the project, the comparison group of children attending the schools not integrated into the prevention project was examined as well.

Epidemiological Examination

Both groups were examined. Continuous epidemiological examinations were performed in the years 2002, 2005, and 2007. The examination was implemented with the schoolchildren at the age of 7-12 years. The level of cariosity was assessed according to the WHO criteria. The condition of oral hygiene was assessed and defined as the condition "almost without dental plaque" (degree 0), "rare dental plaque" (degree 1), and "thick layer of dental plaque" (degree 2). The schoolchildren of the tested group were examined by one dental practitioner (Dr. Eva Kovalova, PhD.). The schoolchildren of the comparison group were examined by other dental practitioner (Dr. Tatiana Čamoká). Before performing the first examination, both dental practitioners were calibrated in the course of three days; Dr. Eva Kovalova, PhD. introduced Dr. Tatiana Čamoká into a job. Both groups were equally examined within the same period of time (difference of 1- 2 weeks).

Statistical Processing

The results concerning the examination of cariosity were processed with respect to the permanent dentition on the basis of (DMFT - KPEZ) index.

To determine the statistical significance the Mann-Whitney Test (tables containing average values) and Chi-Quadrat Test (tables containing the percentage evaluation) were used.

Results and discussion

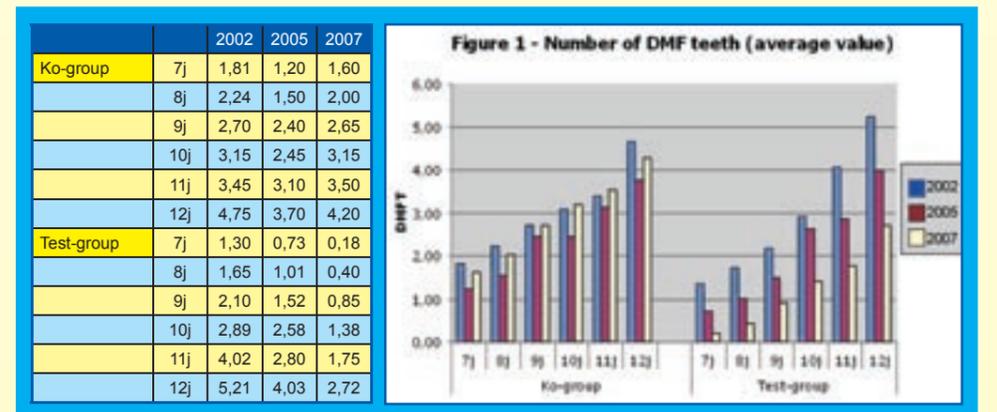
Cariosity of Permanent Dentition

The Table I and Diagram I present average values of DMF (caries, extraction, the tooth filling (KPE)) per one tooth of both groups in the period of time from the year 2002 to the year 2007.

The condition of the dentition reaches similar level at the beginning of examination. When comparing both groups (2002), only the age group of 9-year old children showed the statistical significance. According to (Mann-Whitney Test: P<0.05) it represents statistically important and significant difference.

Within the comparison group there were not present any demonstrable changes in any of the age groups from the year 2002 to the year 2005.

The significant changes concerning the assessment of cariosity were present in all age groups of the tested group. Decrease of average values DMFT depends on age - values between 48% and 86% (average decrease is represented by 62%).



Conclusion

The epidemiological study presents successful results of the prevention project Healthy Smile provided that it is performed by trained workers (Dental hygiene Students) and experts in the field of preventive dental medicine such as dental disease prevention officer and dental hygienist. Under supervision of the abovementioned experts, children performed cleaning and fluoridation of their teeth with use of the Elmex-Gelee 6 times a year.

Improvement in oral hygiene could be observed within the tested group.

High decline of cariosity within the tested group is possible to be explained by influence of more factors at once. Higher quality of teeth cleaning achieved by using the correct technique and higher teeth fluoridation by means of the fluoride product Elmex gelee.

The thesis presents the way of achieving the WHO objects. It is necessary to involve everyone interested in oral health into the project of Healthy Smile as well as in other projects. And that would be the way to integrate Slovakia among the countries with higher level of oral health.

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