THE DENTAL STATUS IN FIRST GRADE CHILDREN

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Abstract: *The hereby article presents a clinical study regarding the oral dental status in young children from first grade. The study was applied on 100 children between the ages of 6-8 years who are studying in different general schools in Sibiu in the 1st grade. We established a questionnaire with items regarding oral status: who brushes them, what is the frequency of brushing, what type of brush they are using etc. We also clinically examined them and noted everything on a chart that we designed, which revealed data regarding: the number of teeth, number of caries, presence of gingivitis, plaque, tantrum etc. The aim of this study was to inform the parents about the number of caries with the help of teachers and to determine them to take children to a dentist on a regular basis.*

INTRODUCTION

Oral hygiene and, therefore, the dental status has a great influence on the health state of the entire organism and on the life quality of the individual. Hence, a correct oral hygiene by using various cleaning techniques is important for social integration, human relationships, self-esteem and the respect of the others. At the same time, it is essential for maintaining the health status both in adults and in children.(1,2,3)

The national programmes regarding dental cavities' prevention are currently developing and they are meant to be applied both in adults and children from rural or urban environment. Due to the lack of information and addressability to the dentist, and also due to financial reasons, most of the adults choose to go to the physician only when the pain is great and when the tooth is difficult to save. If the oral hygiene of the adult is poor, usually the children are much in the same situation, because the parent does not take these aspects seriously, especially in the period of temporary teeth. The primary reason for negligence would be that "teeth change anyway", therefore the child is not educated in the sense of observing correct oral hygiene rules with a correct frequency. When the child reaches 6 or 7 years old and mixed teeth are present, the permanent teeth will not be properly sanitized because the child is not used to this activity. Moreover, the parent may become aware of the fact that the six-year molar has erupted only when it is too late.(4,5,6,7)

Mixed dentition represents the transition from the deciduous teeth to the permanent ones; during this period the contact with the dentist is essential, as well as correct brushing at least twice a day and usage of adjuvants in oral hygiene. The eruption of permanent teeth around the age of 6 prepares the child for a more efficient mastication and lays the foundation of the adult's future dentition, which implies a greater respect for oral hygiene and dentist addressability for professional brushing and dental sealing.(8,9)

PURPOSE

The aim of the present article is the detection of dental lesions in examined patients and the creation of information feedback for parents regarding the dental status of children at the moment of examination.

The proposed objectives are:

- Assessment of dental status in small schoolchildren and data processing;
- Informing parents on the obtained data with the help of class coordinators / teachers;
- Children and parents alike must be aware of the importance of improved oral hygiene;
- Increased frequency of dental brushing;
- Improved oral hygiene and brushing techniques;
- Increased addressability to the dentist.

MATERIALS AND METHODS

There was conducted a qualitative descriptive study of the investigation type using the tools of the assisted questionnaire with 12 items with closed responses, applied to schoolchildren from a secondary school in Sibiu. The study was conducted over the period 2015-2016 and included the clinical examination of 100 first grade children between 6-8 years of age. After the clinical examination, we designed the individual study chart containing the following: name and surname, age, gender, data concerning oral hygiene, when and how long the children brush their teeth, what tooth brushes they use, who is helping them, the number of teeth, the presence of mucous-bacterial plaque or gingivitis, the number of obturations and cavities, the present radicular residues etc.

The children were examined in the classrooms with single use sterile instruments. They were motivated /awarded with special brushing schedules, in which they had to tick when they would brush their teeth, twice a day, for one month.

At the end of the examination, we have completed a chart with the help of the teachers, in which we have inserted data concerning the number of present cavity lesions; the teacher would announce the parents about the presented problems in order for the latter to become aware of the importance of addressing to the dentist.

The obtained data were statistically processed with the SPSS program, version 20. For the statistical analysis of the data, there were used techniques of descriptive statistics and interferential statistics. We determined the values of the average,

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median, percentage, standard deviations, percentiles, the minimum, the maximum limits, trust intervals, correlation coefficients etc. We analyzed the form of variables distribution (with the Kolmogorov-Smirnov test, by analyzing the vaulting and flatness parameters and the histogram charts); depending on the shape of distribution, there were applied parametrical or non-parametrical tests such as: the T test for independent samples, ANOVA, the λ^2 test, associations charts between two or more variables, specificity, sensitivity etc.(4,5)

RESULTS

Table no 1. Centralized data regarding the age of the children, the frequency of brushing, the person performing the brushing process, the type of tooth-brush and the visit to the dentist

		N	%
Age	6	7	7.0%
	7	87	87.0%
	8	6	6.0%
How many times a day do they brush?	once	23	23.0%
	twice	67	67.0%
	rare	10	10.0%
	never	0	0.0%
Who performs the brushing?	by themselves	66	66.0%
	an adult	34	34.0%
Type of tooth brush	manual	70	70.0%
	rotating	30	30.0%
Any prior visits to the dentist?	yes	98	98.0%
	no	2	2.0%

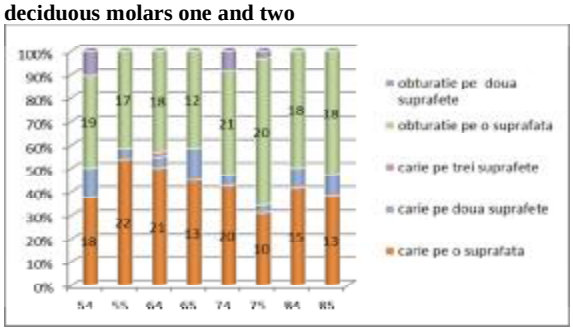
From the chart below, one can conclude the following: 87% of the examined children are 7 year-old, 67% of them brush their teeth twice a day; most of them (66%) brush themselves. The manual tooth brush is predominant in 70% of cases, while the rotating one is used in 30% of the cases. 98% of the children have been to the dentist before.

Table no. 2. Data on the mucous-bacterial plaque, dental plaque and gingivitis on the studied group

		N	%
visible plaque	yes	44	44.0%
	no	56	56.0%
plaque	yes	33	33.0%
	no	67	67.0%
gingivitis	yes	6	6.0%
	no	94	94.0%

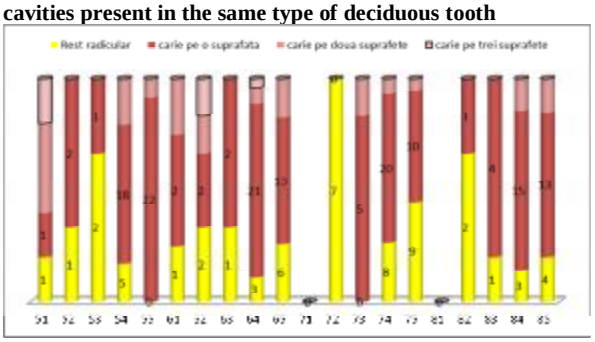
The above data highlight the fact that: mucous-bacterial plaque was visible in 44% of the children, the plaque was present in 33% of cases, and gingivitis in 6% of the children, during the clinical examination, without using any revealing substance.

Table no. 3. The frequency of cavities and fillings in deciduous molars one and two



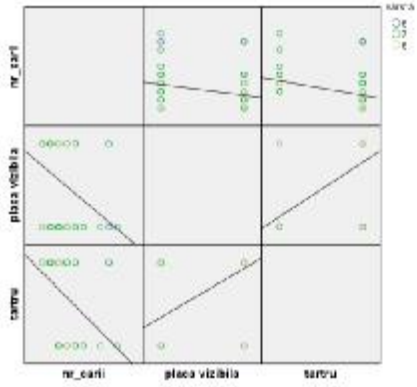
The interpretation of the above chart on the frequency of dental cavities and fillings in the deciduous molars one and two (54, 55- upper right molars, 64, 65- upper left molars, 74, 75- lower left molars, 84, 85- lower right molars) shows that: the most affected tooth by cavity on one surface was tooth 55, the most affected on two surfaces was tooth 13, the most frequent obturations on one surface was on tooth 75, while the most frequent obturations on two surfaces were present on tooth 54, of the total molars affected by cavities.

Table no. 4. Comparison between the radicular residues and cavities present in the same type of deciduous tooth



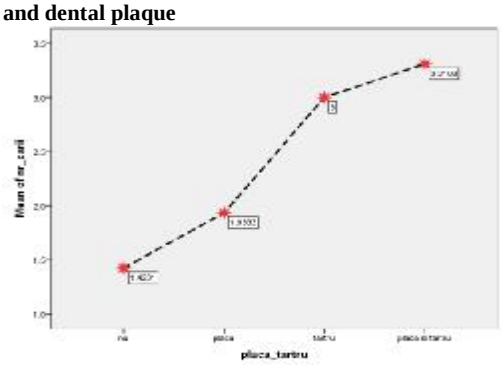
The statistical analysis of the above chart reveals the fact that the most frequent radicular residues could be found in teeth 53 and 72.

Table no. 5. Interdependence between dental caries, mucous-bacterial plaque, and dental plaque in the studied group



The statistical processing of data show a clear and relevant statistical interdependence as regarding the proportional relationship between the number of cavities, the mucous-bacterial plaque and the dental plaque at the age of 7 year-old.

Table no. 6. Interdependece between dental cavity, gingivitis and dental plaque



The above chart reveals that in children with poor oral hygiene, the number of dental cavities increases proportionally

with the presence of mucous-bacterial plaque which determines the occurrence of dental plaque, and hence the gingivitis.

DISCUSSIONS

The hereby study is a gateway and opened perspective on improving the children's oral hygiene.

An ever developing concept nowadays is the implication of parents in making their children aware of the importance of oral health.

Our research has, indeed, a certain degree of subjectivity, as it may represent the beginning of a detailed study performed on several age groups and different social environments.

CONCLUSIONS

The present research leads to the following conclusions:

- children who brush themselves have more cavities than the ones who are helped by their parents;
- high frequency of cavities in deciduous molars 1 and 2;
- improved oral hygiene (less calculus, plaque, cavities) in children using the rotating toothbrush, as compared to those who use manual toothbrush;
- improved oral hygiene (less calculus, plaque, cavities) in children brushed by their parents;
- most children with cavities also have plaque / calculus and the other way around;
- children with plaque and calculus have gingivitis and more cavities;
- those who went regularly to the dentist have less cavities;

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