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PUBLIC HEALTH PROMOTION OF THE IMPACT OF ORAL HEALTH ON THE QUALITY OF LIFE OF THE CHILDREN IN PRIMARY AND SECUNDARY SCHOOLS IN OHRID

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Abstract

Oral health is part of the global health of the individuals. The influence of problems with teeth and mouth has great influence on the general health. There is a need of using preventive programs in the goal of improving and providing oral health for the children population on a higher level.

The objective of the study is to see the real situation of the teeth and mouth of the children in Ohrid and the influence of oral health on the quality of life.

Cross-sectional study was performed on 248 respondents (children of the age from 11 to 18 years), selected on the base of randomization from the primary and secondary schools in Ohrid. They filled out the questionnaire (OHIP) and were reviewed by a dentists who noted the current state of teeth and were divided in two groups, (A and B).

From 248 respondents, 56% are female and 44% are male ($p>0.05$). Out of 44 children who think that the life is of lesser quality, due to problems with teeth, 34.1% belong to group A, while 65.9% belong to group B. (Odds Ratio=1.147). ($p<0.05$) DMF index used by the dentists, denotes the average number of carious, extracted and sealed teeth. Factors: the level of education of children's parents, postponing the visit to the dentist, although in need of it, interrupted sleep, feeling self-awareness of oral health care, dental treatment is an extra expense on the family budget, represent values that are statistically significant associated with the conclusion that the life has less quality due to problems with teeth.

***Keywords**:* quality of life, oral health, children population

Introduction

Oral health is a condition without chronical pain in the mouth and the facial area, cancer of the throat or the lips, congenital anomalies such as clefted palate which influence the oral cavity, perdontal dissesases, caries, loss of teeth and other diseases and afflictions that impact the oral cavity. Improvement of the oral health and with it the quality of life, are the main objective and care of stomatology. The problems in the domain of oral health can be of the functional restrictive type, physical pain, physical inability, psychological problems, social impediments. Dental caries, paradonthopathy, orthodental anomalies are a big health problem in the population. This problem is accentuated from the aspect of more factors:

The wide presence of the above mentioned diseases in the population, especially in the children.

- Oral diseases have a stressed negative impact on the quality of life of every individual.
- Oral diseases have a negative influence on the general health situation of the individual and deteriorate the condition of other health issues.
- With help of widely applied protective measures, there is a great probability of preventing the dominating oral problems.
- The success in resolving the problems of the dominating oral diseases depends on the cooperation of the work in more sectors and activities [1].

The estimation of the quality of life related to oral health (Oral Health-Related Quality of Life-OHRQoL) in fact presents a personal statement and life experience related to oral health, encompassing the physical, functional, social and psychological influences of the oral diseases.

There are various instruments constructed for the measuring of the quality of life related to oral health [2]. The most important is the Oral Health Impact Profile (OHIP-20) and with it's help the human perception for the influence of the social and other factors is measured on oral disfunction and it's relatedness to the general wellbeing of the people [2].

Results

The data was obtained from the individually filled out OHIP (Oral Health Impact Profile) questionaire forms, of the influence of oral health on the quality of life in the children population (children from the primary and secondary schools), on the basis of randomization which entered in the sample which was selected from the general population of children of age 11-18 years in the territory of Ohrid. The data was obtained by regular systematic dental control checkups from the dentists' on the condition of the teeth of the examinees, and on the basis of the DMF index (caries, extracted, tooth fillings/ sealed teeth, of the teeth). After statistical calculations and revaluation of the data they were graphically presented.

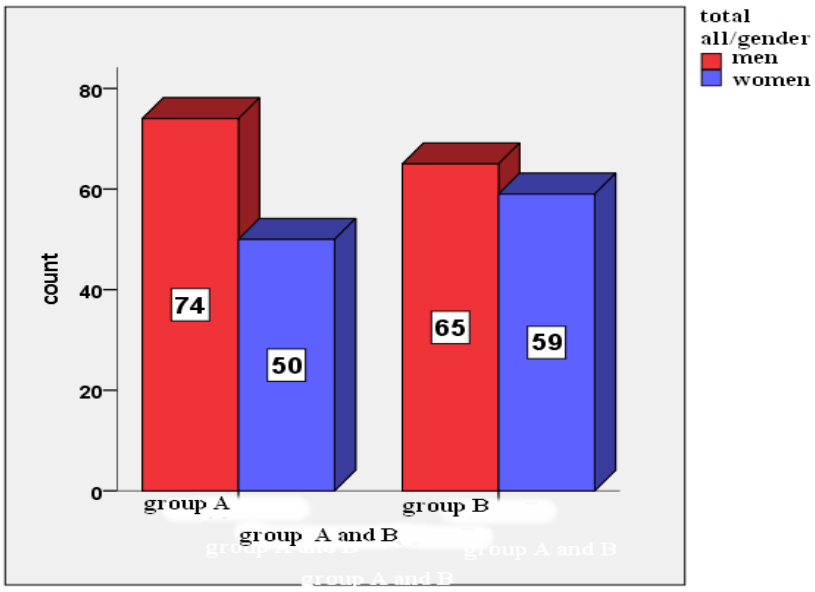

Fig. 1. Distribution of frequences of the the examinees (children who belong to A-group of secondary schools and group B - children that belong to the primary schools) according to the gender variable.

From a total of 248 examinees (test subjects, respondents), children that belong to groups A and B), 139 children (56.0%) were female gender, 109 children (44.0%) male gender.

From 139 children of female gender 74 (53.2%) belong to group A (secondary schools), while 65 (46.8%) are in group B (primary schools).

From 109 male gender children 50 (45.9%) belong to the group A (secondary schools), while 59 (54.1 %) belong to group B (secondary school children).

Table 1. X^2- test (Chi-Square Test) of statistical significance on the differences in the variables of the examinees belonging to (group A children from secondary schools / group B- children from primary schools) and their gender.

Statistical test	value	df	Sig.
Pearson Chi-Square	1,326	1	0,250
N of examinees	248		

X^2-test (Pearson Chi-Square) = 1.326; df = 2; p = 0.250 which means that the working hypothesis is rejected, i.e the null hypothesis is accepted (there is no significant difference in the variable gender in the examinees (the children from groups A and B) on one side and the variable of their belonging to the groups of examinees (groups A-children from the secondary schools/group B (children from primary schools), on the other side.

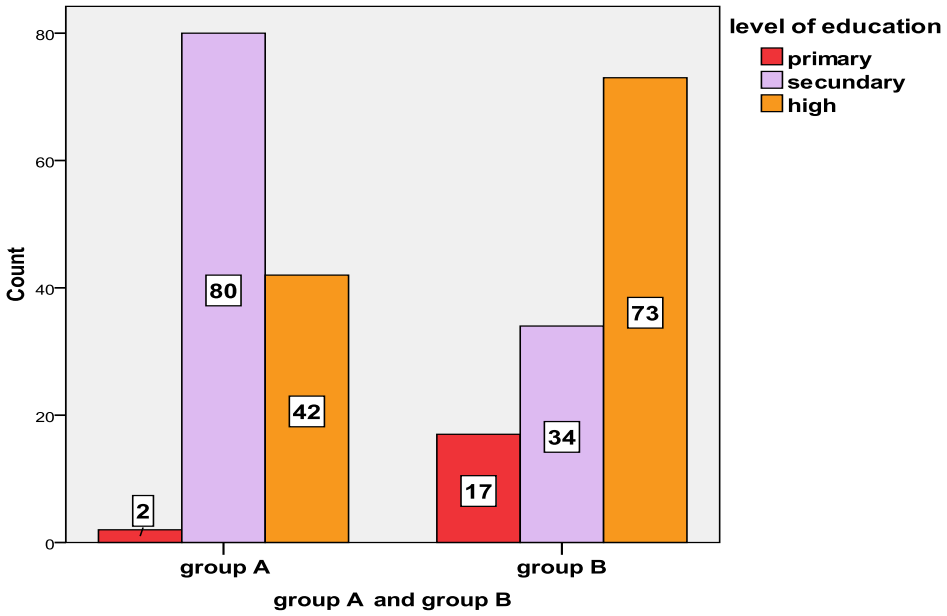

Fig. 2. Distribution of frequences of the the examinees (children who belong to A-group of secondary schools and group B-children that belong to the primary schools) according to the gender variable

Of a total of 248 examinees (children who belong to groups A and B), 19 (7.7%) of parents are with primary education, 114 (46%) are with secondary education, while 115 (46.4%) are with higher and high education. From 19 children whose parents have primary school education 2 (10.5%) belong to the A group (secondary school), while 17 (89.5%) belong to group B (children in primary schools). Of 114 children whose parents have secondary school 80

(70.2%) belong to group A (secondary school children), while 34 (29.8%) belong to group B (primary school children). From 115 children whose parents are with higher and high education, 42 (36.5%) belong to the group A (secondary school children), while 73 (63.5%) belong to group B (primary school children).

Table 2. X^2- test (Chi-Square Test) for statistical significance of the differences in the variables of belonging of the examinees to (group A- secondary school children)/ group B- primary school children) and the level of education of their parents

Statistical test	value	df	Sig. (2-sided)
Pearson Chi-Square	**38,760**[a]	2	**0,000**
N	248		

X^2- test (Pearson Chi-Square) = 38.760; df = 2; p = 0.000 which means that the working hypothesis is accepted (there is a significant diffefence between the leevel of education of the parents of the examinees children from groups (A and B) and their belonging to the examined groups (group A- secondary school children and group B- primary school children).

Contingency coefficient is 0.368 which indicates a medium relatedness between the variables.

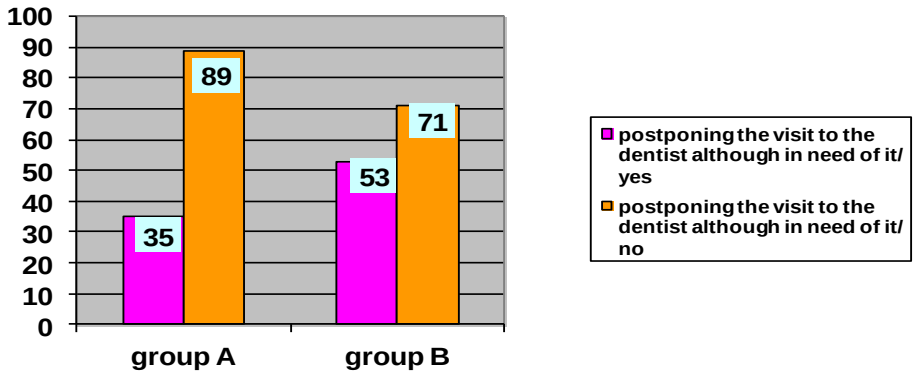

Fig. 3. Distribution of the frequencies of the examinees children of group A (secondary school chlidren) and group B (primary school children) according to the variable –delaying going to the dentist if there is a need for a dentist.

From a total of 248 examinees (subjects, respondents), (children belonging to group A and group B), 88 (35.5%) delayed their visit to the dentist, although they had a need of a dentist

intervention, while 160 (64.5%) did not delay their visit to the dentist. From 88 children that delayed their visit to the dentist, although they had a need for it, 35 (39.8%) belong to group A (secondary school children), while 53 (60.2%) belong to group B (primary school children). From 160 children who did not delay their visit to the dentist, 89 (55.6%) belong to group A (secondary school children), while 71 (44.4%) belong to group B (primary school children).

Table 3. X^2- test (Chi-Square Test) of statistical significance of the differences between the variables belonging of the examinees to group A (secondary school children), / belong to group B (primary school children) and delaying a visit to the dentist when there is a need of a dentist

Statistical test	**Value**	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	**5,707[a]**	**1**	**0,017**
	N 248		

X^2- test (Pearson Chi-Square) =5.707; df = 1; p = 0.017 which means that the working hypothesis is accepted (there is a significant difference) between the variable delaying the visit to the dentist, although there is a need for a dentist intervention in the exminees of (children of groups A and B) and their belonging to the examined groups, group A (secondary school children), and group B (primary school children).

Contingency coefficient is 0.150 which indicates a weak intensity of relatedness of the variables.

Odds Ratio= 0.473, means that the examinees whom belong to group A (secondary school children) have a 47.3% chance of delaying the visit to the dentist although they have a need for it, compared to 52.7% chance for children who belong to group B (primary school children) for delaying the visit to the dentist although they have a need for it.

The lower limit of 95% of confidence (95 % Confidence Interval) = 0.310**.**

Upper limit of confidence of 95% =0.894.

Confidence Interval 0.310-0.894 shows that the difference is significant and this lead to the acceptance of the working hypothesis for the cause and effect relatedness.

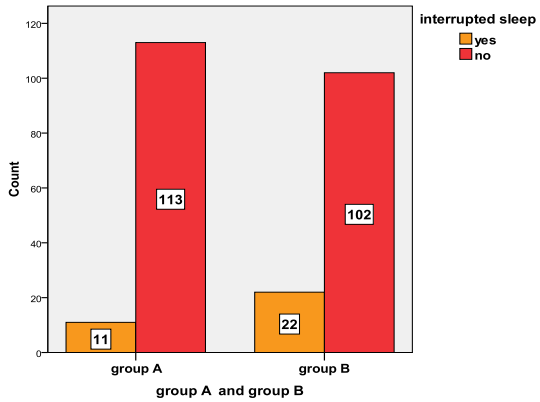

Fig. 4. Distribution of frequencies of the examinees, children who belong to group A (secondary schools), and in group B (primary schools), according to the variable interrupted sleep because of problems with teeth.

Of a total of 248 examinees, (children who belong to groups A and B), 33 (13.3%) have interrupted sleep because of problems with teeth, 215 (86.7%) don't have interrupted sleep because of problems with teeth. From 33 children with interrupted sleep because of problems with teeth, 11 (33.3%) belong to group A (secondary schools), while 22 (66.7%) %) are children in group B (primary schools). From 215 children who don't have interrupted sleep because of problems with teeth, 113 (52.6%) belong to group A (secondary schools), while 102 (47.4%) are in group B (primary schools).

Table 5. X^2- test (Chi-Square Test) of statistical significance of the differences between the variables of examinees of belonging to group A (secondary schools) /group B (primary schools) and the variable interrupted sleep because of problems with teeth

Statistical test	**Value**	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	**4,229[a]**	**1**	**0,040**

X^2- test (Pearson Chi-Square) =4.229; df = 1; p = 0.040 which means that the working hypothesis is accepted (there is a statistically significant difference) between the variable interrupted sleep because of problems with teeth in the examineees in (groups A and B) and their belonging to group A (secondary schools), and belonging in group B (primary schools).

Contingency coefficient is 0.129 at p = 0.040, which indicates weak relatedness between the variables.

Odds Ratio= 0.450, which means that the examinees belonging to group A (secondary schools) have a 45% chance to have interrupted sleep because of problems with teeth, in relation to 55% chance to have interrupted sleep because of problems with teeth in group B.

The lower limit of 95% interval of confidence (95 % Confidence Interval) = 0.209**.**

The upper limit of 95% interval of confidence (95 % Confidence Interval) =0.976.

Confidence Interval 0,209-0,976 shows that the difference is significant and this leads to accepting the working hypothesis for a cause effect relatedeness.

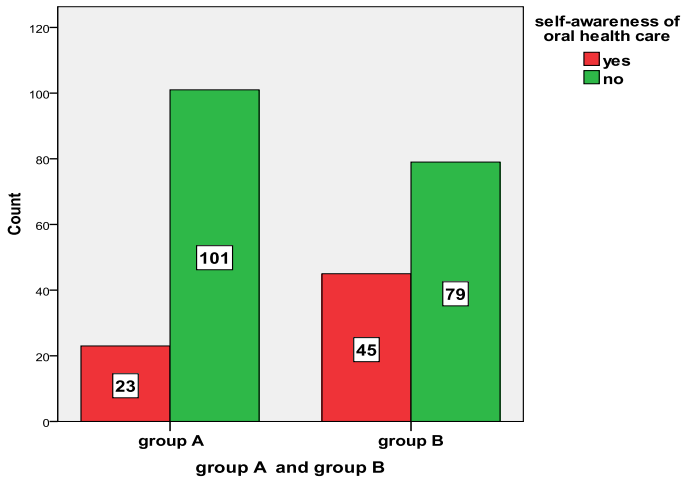

Fig. 5. Distribution of the frequencies of the examinees, children who belong to group A (secondary schools), and in group B (primary schools), according to the variable worry because of teeth

Of a total of 248 examinees, (children who belong to groups A and B), 68 (27.4%) are worried because of teeth, 180 (72.6%) aren't worried because of teeth. From 68 who are worried because of teeth 23 (33.8%) belong to group A (secondary schools), while 45 (66.2%) are children in group B (primary schools). From 180 children who are not worried because of teeth, 101 (56.1%) belong to group A (secondary schools), while 79 (43.9%) are in group B (primary schools).

Table 5. X^2- test (Chi-Square Test) of statistical significance of the differences between the variables of examinees belonging to group A (secondary schools)/group B (primary schools) and worry because of teeth

Statistical тест	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9,807[a]	1	0,002
N 248			

X^2- test (Pearson Chi-Square) =9.807; df = 1; p =0.002 which means that the working hypothesis is accepted (there is a statistically significant difference) between the variable worry because of teeth in examineees (groups A and B) and their belonging to group A (secondary schools) and belonging in group B (primary schools).

Contingency coefficient is 0.195 at p =0.002 which indicates weak relatedness between the variables.

Odds Ratio=0.400, which means that the examinees belonging to group A (secondary schools) have a 40% chance to be worried about their teeth in relation to 60% chance of worry because of teeth in group B (secondary school children).

The lower limit of 95% interval of confidence (95 % Confidence Interval) = 0.223

The upper limit of 95% interval of confidence (95 % Confidence Interval) = 0.716

Confidence Interval 0.223-0.716 shows that the difference is significant and this leads to accepting the working hypothesis for a cause-effect relatedeness.

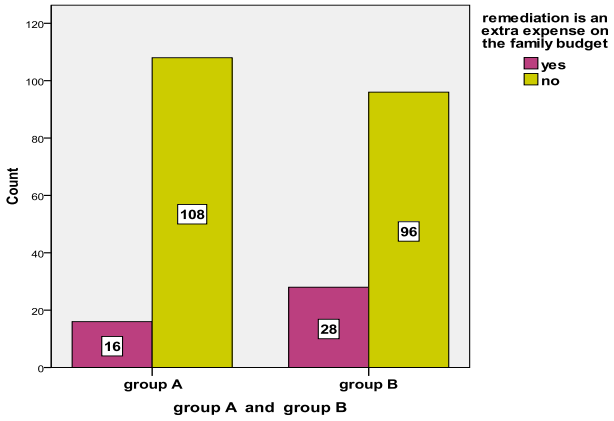

Fig. 6. Distribution of the frequencies of the examinees, children who belong to group A (secondary schools), and in group B (primary schools), according to the variable repairing teeth is an extra expense

Of a total of 248 examinees, (children who belong to groups A and B), 44 (17.7%) think repairing teeth is an extra expense for the family, 204 (82.3%) don't think repairing teeth is an extra expense for the family. From 44 who think repairing teeth is an extra expense for the family, 16 (36.4%) belong to group A (secondary schools), while 28 (63.6%) are children in group B (primary schools). From 204 don't think repairing teeth is an extra expense for the family, 108 (52.9%) belong to group A (secondary schools), while 96 (47.1%) are in group B (primary schools).

Table 6. X^2- test (Chi-Square Test) of statistical significance of the differences between the variables of examinees belonging to group A (secondary schools)/are in group B (primary schools) and think that repairing teeth is and extra expense on the family

Statistical test	**Value**	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	**3,979[a]**	**1**	**0,046**
	N 248		

X^2- test (Pearson Chi-Square) =3.979; df = 1; p = 0.046 which means that the working hypothesis is accepted (there is a statistically significant difference) between the variable think repairing teeth is an extra expense on the family in examines in (groups A and B) and their belonging to group A (secondary schools) and belonging in group B (primary schools).

Contingency coefficient is 0.126 at p = 0.046 which indicates weak relatedness between the variables.

Odds Ratio= 1.125, which means that the examinees belonging to group B have a 1.125 times greater chance to think that repairing teeth is an extra expense on the family (secondary schools), compared to group A (secondary school children).

The lower limit of 95% interval of confidence (95 % Confidence Interval) = 1.001**.**

The upper limit of 95% interval of confidence (95 % Confidence Interval) =1.264.

Confidence Interval 1.001-1.264 shows that the difference is significant and this leads to accepting the working hypothesis for a cause -effect relatedeness.

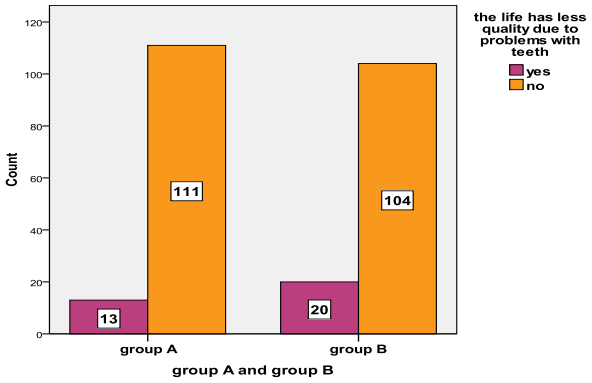

Fig. 7. Distribution of the frequencies of the examinees, children who belong to group A (secondary schools), and in group B (primary schools), according to the variable lesser quality of life because of teeth

Of a total of 248 examinees, (children who belong to groups A and B), 44 (17.7%) think they have a lesser quality of life because of teeth, 204 (82.3%) don't think they have a lesser quality of life because of teeth. From 44 who think they have a lesser quality of life because of teeth, 15 (34.1%) belong to group A (secondary schools), while 29 (65.9%) are children in group B (primary schools). From 204 children who don't think they have a lesser quality of life because of teeth, 109 (53.4%) belong to group A (secondary schools), while 95 (46.6%) are in group B (primary schools).

Table 7. X^2- test (Chi-Square Test) of statistical significance of the differences between the variables of examinees belonging to group A (secondary schools)/group B (primary schools) and think that they have a lesser quality of life because of teeth

Statistical test	**Value**	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	**5,415[a]**	**1**	**0,020**
	N 248		

X^2- тест (Pearson Chi-Square) = 5.415; df = 1; p = 0.020 which means that the working hypothesis is accepted, (there is a statistically significant difference) between the variable who think they have a lesser quality of life because of teeth in the examineees (groups A and B) and their belonging to group A (secondary schools) and belonging in group B (primary schools).

Contingency coefficient is 0.146 at p=0.020 which indicates weak relatedness between the variables.

Odds Ratio= 1.147 which means that the examinees belonging to group B (secondary schools) have a 1.147 greater chance to think they have a lesser quality of life because of teeth, compared to group A (secondary school children).

The lower limit of 95% interval of confidence (95 % Confidence Interval) = 1.021

The upper limit of 95% interval of confidence (95 % Confidence Interval) = 1.290.

Confidence Interval 1.021-1.290 shows that the difference is significant and this leads to accepting the working hypothesis for a cause-effect relatedeness.

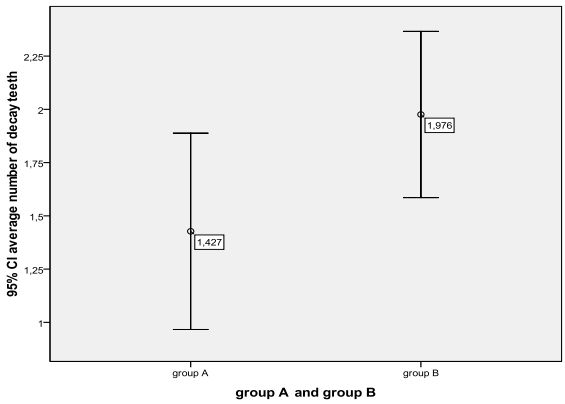

Fig. 8. Average value of number of carious teeth in the examinees children in group A (secondary schools) and belonging in group B (primary schools)

The average value for carious teeth in the examinees group A (secondary schools) is 1.427 teeth, with a standard deviation 2.196 and standard error 0.233.

The average value for carious teeth in the examinees group B (primary schools) is 1.976 teeth, with a standard deviation 2,592 and standard error 0.197. T-test = -1,789/ p= 0,073, which means that the working hypothesis is rejected and the null hypothesis is accepted, that is to say that average value of number of carious teeth in both groups of examinees in group A (secondary schools) and in group B (primary schools) is not statistically significant.

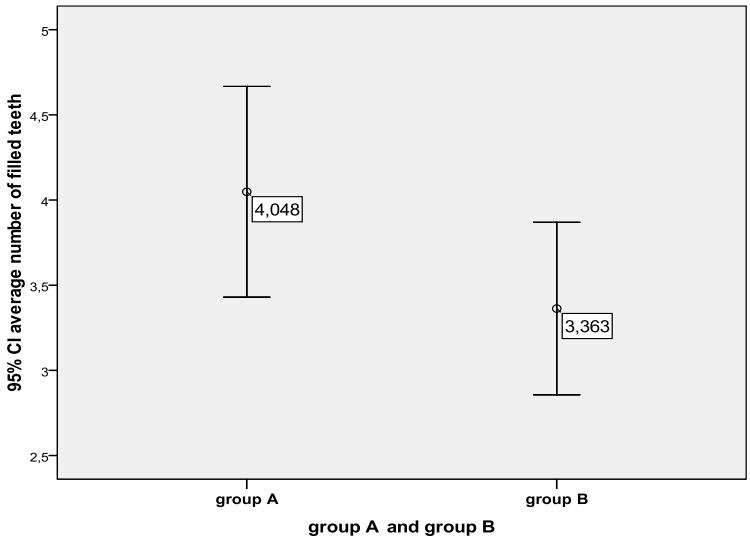

Fig. 9. The average value of filled/sealed teeth in the examinees children in group A (secondary schools) and belonging in group B (primary schools)

The average value of the number filled/sealed teeth in the examinees belonging to group A (secondary schools) is 4.048 teeth, with a standard deviation of 3.480 и and standard error 0.313. The average value of filled teeth in the examinees belonging in group B (primary schools) is 3.363 teeth, with standard deviation of 2.849 and standard error 0.256.

T-test =1.697/p= 0.091, which means that the working hypothesis is rejected and the null hypothesis is accepted, that is to say that average value of the number filled/sealed teeth in both groups of examinees in group A (secondary schools), and belonging in group B (primary schools) is not statistically significant.

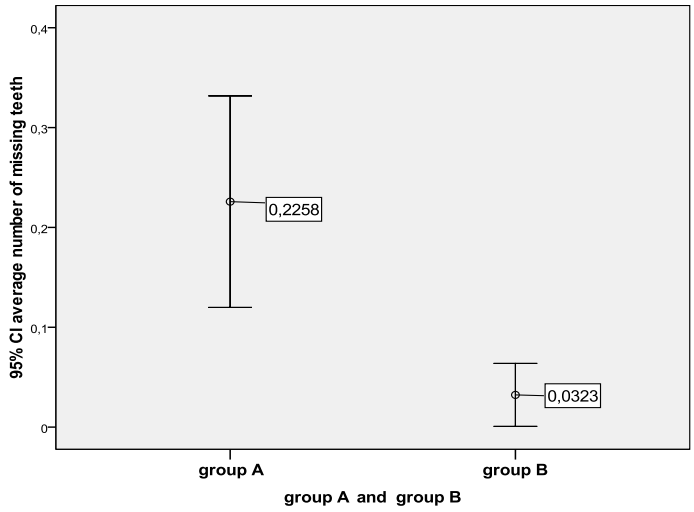

Fig. 10. The average value of pulled out teeth in the examinees in group A (secondary schools) and belonging in group B (primary schools).

The average value of pulled out teeth in the examinees belonging to group A (secondary schools) is 0.2258 teeth, with a standard deviation of 3.480 and standard error 0.313.

The average value of pulled out teeth in the examinees belonging in group B (primary schools) is 0.0323 teeth, with standard deviation of 0.596 and standard error 0.016.

T-test =3.466/p= 0.001, which means that the null hypothesis is rejected and the working hypothesis is accepted, that is to say that the difference of pulled out teeth in groups of examinees in group A (secondary schools) and belonging in group B (primary schools) is statistically significant.

Discussion

According to the reports in the domain of dental activities, in the first place of frequency of oral diseases is the tooth caries (53% of all diseases), then the diseases of the pulp and the periapical tissue. Acute and chronic periodontitis is not a rare disease, but preventive measures for it are less frequently taken.

Our country produced a plan for a national strategy as part of the WHO "Health for all in the 21st century", with the goal of improving oral health. The children in our country, of twelve years, on average have more diseased teeth from their age group counterparts in the rest of the European countries. The situation with caries in school children is very different in different regions of the country, depending on the measures implemented and protection, the content of fluorine in the soil and the water, nutrition and other factors [3].

It is understood that in individuals with a very high DMF (caries, missing, filled teeth) index, only tooth repair is possible, where for health reasons it is only necessary to fill the tooth to preserve it, in every case it is possible.

In the secondary school youth the DMF index is very high, and it is between 7 and 14, which indicates a very poor condition of the teeth and a need for urgent, in the first place preventive protection measures.

In the preschool age children, the number of caries affected teeth is increasing in numbers with the increasing age.

It is expected that the prepared strategy will result in the improvement and advancement of health in children [4].

The results of our study showed that the variable gender did not receive a statistically significant difference between the gender in children in group A (secondary schools) and belonging in group B (primary schools). X^2- test (Pearson Chi-Square)=1.326; df=2; p=0.250.

This was expected, because the participation of males and females is almost identical in the secondary and primary schools in all municipalities in our country.

With the variable education of the parents of the children which are included in the study, a statistically significant difference was demonstrated in their belonging to children in group A (secondary schools) and belonging in group B (primary schools), which indicates the level of relatedness between the variables, the education level of the children's parents participating in the study and their belonging to group A (secondary schools) and belonging in group B (primary schools).

The analysis of the variable delaying visit to the dentist, although there is a need for a visit to the dentist, showed that 88 (35.5%) of the examinees children belonging to groups (A and B) answered affirmatively, which is a high percentage compared to the total number of examinees, with respect to the fact that it is the case with a young population that needs to take care of it's general health and of the oral health.

X^2- test (Pearson Chi-Square)=5.707; df=1; p=0.017 which means that the working hypothesis is accepted, (there is a statistically significant difference) delaying visit to the dentist in children, although there is a need for a visit to the dentist in children belonging to groups A or B. Contingency coefficient is 0.150 which indicates a weak intensity of relatedness between the variables.

After calculating the Odds Ratio=0.473, it was concluded that the chance for delaying visit to the dentist, although there is a need for a visit to the dentist, are in 47.3% of the examinees in group A (secondary schools) and 52.7% belonging in group B (primary schools).

Confidence Interval from 0.310-0,894 indirectly shows that the difference is statistically significant and the working hypothesis is accepted for a cause effect relatedness [5, 6].

This is in correlation with the increasing DMF index, i.e. the average value for caries affected teeth is greater in group B (primary school children).

In a study of this type of problem area carried out in Nigeria, it was concluded that generally people go to the dentist only when they have an acute serious problem with their teeth. [7]. In the part of the psychological-sociological limitations because of the problem with teeth in the examinees (children who belong to groups A and B), in the variable of interrupted sleep because of problems with the teeth, a statistically significant difference was obtained depending on the belonging to the groups.

From a total of 248 examinees (children who belong to groups A and B, 13.3% have interrupted sleep because of problems with their teeth, while 86.7% do not have this problem.

From 33 children who have interrupted sleep because of problems with their teeth, 33.3% belong to group A (secondary school children), while 66.7% belong to group B (primary school children X^2- test (Pearson Chi-Square)=4.229; df=1; p=0.040, means that the working hypothesis is accepted (there is a statistically significant difference) between the vaiable interrupted sleep because of problems with teeth and belonging of the xaminees to groups (children of groups A and B).

Contingency coefficient is 0.129 at p=0.040, which indicates a weak relatedness between the variables.

The positive correlation between interrupted sleep and the average number of carious teeth is confirmed, which is more numerous in the children of group B (primary school).

Odds Ratio= 0.451, means that the examinees that belong to group (secondary school children) have a 45% chance to have interrupted sleep because of problems with teeth in

comparison with 55% for interrupted sleep because of problems with teeth for the examinees of group B (primary school children).

The acceptance of the working hypothesis is shown indirectly through the Confidence Interval of 0.209-0.976 which shows that the difference is statistically significant.

The worry of the examinees because of problems with their teeth, group A (secondary school children) and group B (primary school children), showed that there is 68 examinees participation from who 33.8% belong to group A (secondary school group), while 66.2% belong to group B (primary school children).

X^2- test (Pearson Chi-Square)=9.807; df=1; p=0.002, means that the working hypothesis is accepted (there is a statistically significant difference) between the vaiable worry of the examinees because of problems with their teeth (children of groups A and B) and the belonging of the examinees to groups, group A (secondary school children), or group B (primary school children).

Contingency is 0.195 at p=0.002, which indicates a weak intensity of relatedness between the variables.

Odds Ratio=0.400, means that the examinees which belong to group A (secondary school children) have 40% chance of being worried about health problems related to their oral health, in comparison with the greater chance of 60% for worry about their teeth present in group B (primary school children).

Indirectly from the Confidence Interval 0.223-0.716 the cause-effect relatedness of the variables was proved.

From a total of 248 examinees, (children belonging to groups A and B), 44 (17.7%) think that fixing the teeth is an extra expense, 204 (82.3%) don't think that fixing teeth is not an extra expense for the family.

From 44 children who think that that fixing teeth is an extra expense for the family, 36.4% belong to group A (secondary school children), while (63.6%) belong to group B (primary school children).

X^2-test (Pearson Chi-Square) =3.979; df = 1; p = 0.046 means that the working hypothesis is accepted (there is a statistically significant difference) between the vaiable think that fixing teeth is an extra expense on the family (children of groups A and B) and the belonging of the examinees to group A (secondary school children), or group B (primary school children).

This conclusion is in correlation with the level of education of the parents, where 19 parents have primary school education, 17 (89.5%) belong to group B (primary school children).

Contingency coefficient is 0.126 at p=0.046 which indicates a weak intensity of relatedness between the variables.

Odds Ratio=1.125, means that the examinees which belong to group B (primary school children) have 1.125 more chance to vaiable think that fixing/repairing teeth is an extra expense on the family, in comparison with group A (secondary school children).

Confidence Interval 1.001-1.264 shows that the difference is significant and this leads to accepting the working hypothesis for a cause-effect relatedness.

Also from 248 examinees (children that belong to group A and group B), 44 (17.7%) think that life is of lesser quality because of problems with teeth, 204 (82.3%) don't think that life is of lesser quality because of problems with teeth (oral health). From 44 children who think that life is of lesser quality because of problems with teeth, 34.1% belong to group A (secondary school children) while 65.9% belong to group B (primary school children).

X^2-test (Pearson Chi-Square) =5.415; df = 1; p = 0.020, means that the working hypothesis is accepted (there is a statistically significant difference) between the vaiable think that life is of lesser quality because of problems with teeth (children of groups A and B) and the belonging of the examinees to group A (secondary school children) or group B (primary school children).

Contingency coefficient is 0.146 at p = 0.020 which indicates a weak intensity of relatedness of the variables.

Odds Ratio=1.147, means that the examinees which belong to group B (primary school children) have 1.125 greater chance to think that life is of lesser quality because of problems with teeth, in comparison with group A (secondary school children).

Here too the Confidence Interval 1.021- 1.290 shows that the difference is significant and this leads to accepting the working hypothesis for a cause-effect relatedness.

It can be noticed that the examinees of group B (primary school children) are more worried about their health, problems with sleeping related to problems with teeth in a greater percentage, subjective conclusion of the effect on their social life is more pronounced in them, which is in correlation with the condition of their teeth (presence of caries in their teeth).

Generally taken the psychological-social component of the study is more pronounced in this group of children, who are at a younger age in realtion to the secondary school children and most probably still under the dominating influence of worry of their parents and teachers, and the reality is that this influence decreases after puberty, so that secondary school children show less interest for this problem area [8].

The conclusion that dentistry is an additional expense to the family budget and the general conclusion that life is of lesser quality if there are problems with oral health, confirmes that here too, there is a more pronounced worry in those belonging to group B (primary school children).

This again confirms the assumption that children of age 11-14 listen to the advice their parents, also of the teachers, are more worried about the oral health that has influence on general health, are more serious in understanding the problems of expenses to the family budget and have a more serious approach to the evaluations of quality of life related to oral health, contrary to the approach of the secondary school children who are more uninterested [8].

The study done in Nigeria gives similar results indicating a low level of awareness that dental treatment has to be part of the basic primary health protection, through promotion of oral health and specific protective measures, in the children population before all (in the primary and secondary schools) [9].

Okunseri et al. published that 88% of the participants in his study can't afford a dental treatment and for 98% it is not possible to spend money on dental treatment [2].

In solving particular problems in the domain of oral health in relation to the quality of life in the children population, aside from the dental treatment and other health promoting activities, schools, parents and the society in general should take part.

A good insight in the condition of oral health and the success of the work on dental health protection, can be determined on the basis of the results of the general (systematic) checkups of school children (nine year primary schools and secondary schools). For this purpose it is usual to use the DMF index which indicates the average number of **D**ecayed, **M**issing, and **F**illed teeth.

In the study, the real condition of the teeth with respect to decayed, missing and filled/sealed teeth in the examines (children in group A- secondary school and group B- primary school children) was determined by dentists.

It was concluded that in relation to the average values of caries affected teeth, test statistics (F) has a value= 0,046 and p- value (significance) = 0.830, t-test =-1.789 at p-вредност= 0.073, which means that the working hypothesis was not accepted, or that there isn't a statistically significant difference in the average value of caries affected teeth in the groups, group A (secondary school children and group B primary school children) [3, 10].

In relation to the average values of filled/sealed teeth by dentists the (F) statistic was derived which has a value = 3.113 and p- value (significance) = 0.079, and t-test =1.697 at p-value =0.091, which did not confirm the working hypothesis, i.e. there is not a significant

difference in the average values of filled teeth between the groups, group A (secondary school children and group B primary school children) [11].

The condition with number of pulled out teeth determined from a dentist showed that the average value of pulled out teeth of the examinees that belong to group A (secondary school children) is 0.23 teeth, with a standard deviation 0.596, and standard error 0.054.

The average value of number of pulled out teeth of the examinees that belong to group B (secondary school children) is 0.03 teeth, with a standard deviation 0.177, and standard error 0.016.

The test statistics (F) has a value= 53.976 and p- value (significance)= 0.000, t-test =3.466 at p- value= 0.001, which means that the null hypothesis was not accepted, or that the working hypothesis was accepted, or that the difference of the average values of number of pulled out teeth in the groups, group A (secondary school children) and group B (primary school children) is statistically significant [12].

In relation to the average vlues of number of caries affected and filled teeth it is expected that there shouldn't be a statistically significant difference between the two groups of examinees (group A secondary school children and group B (primary school children) because it is a young population as a whole, who are close in age and is under regular dental control and undergoes general (systematic) oral and teeth checkups.

The correlation between caries affected teeth and the level of education of the parents indicates that untreated caries is present in 45.2%, of the population with lower level of education and 16.48%. in the higher level of education.

Nevertheless it sould be stressed that it is needed to introduce all encompassing measures for protection of the oral health, especially in the children population and the adolescent, and as positive example Finland can be taken where caries has been almost eliminated [9]. It is a worrying fact that a statistically significant difference is concluded in the average value of pulled out teeth between groups A and B, i.e. the number of pulled out teeth increases parallel with age, namely the secondary school children [11].

Health education for the detrimental influence of certain risk factors which influence on the quality of life related to oral health, belongs to measures of primary prevention, and those are: improving the health in the children population and specific protection [13].

Once again this confirms that a greater control in needed, with respect to the regular school general (systematic) check ups, as well as with respect to education in the kindergardens and schools, through means of mass information of the population, and the most effective means should be the positive influence of the parents, that is to say in the home.

They should be advised from early age to respect the value of their life generally, and as a part of this to have greater individual control of their oral health [11].

Conclusion

This study which encompasses the young age population (children age 11 to 18), and is concerned with the subjective feeling of individuals in evaluating the quality of their life in relation to their oral health, confirms certain insights and manifestations that should be addressed in order to improve oral health problems in children.

On the part of the creators of health policy, this study can serve as a framework for the development of certain oral health strategies in the direction of promoting the oral health among the children.

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