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Oral Health Related to Demographic Features in Bosnian Children Aged Six

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A B S T R A C T

The main aim of this paper is to present epidemiological indicators of oral health among six-year olds in Bosnia and Herzegovina (BH) and to analyze values of dmft index and dental treatment needs in order to identify differences in parts of the country. Another aim is to identify the needs from the public oral health care system in Bosnia and Herzegovina related to early permanent dentition by analyzing the condition of first permanent molars (FPM) as an indicator of oral health of permanent dentition. Survey was carried out in 2004 in 8 cantons of the Federation of BH (FBH) and in the Republic of Srpska (RS). Final sample included 560 participants aged six (mean 6.2, SD±0.87). One dental team clinically examined all participants according to WHO methodology and criteria. The parameters used were: dmft index, DMFT index of first permanent molars (FPM), presence of sealants and treatment needs. A questionnaire about oral health habits had been administered. Dmft was 6.71 in that the d-component constituted the major part of the index. DMFT index of FPM was 0.61 (SD±1.08). Percentage of caries free participants aged 6 was 6.8%. Average number of FPM with fissure sealants in BH was 0.25 (SD±0.78). Significant demographic differences in dmft index, DMFT FPM and treatment needs were identified. Most participants (48.5%) had their first dental visit between the ages of five and seven. National oral health goal for Bosnia and Herzegovina should be to develop and implement disease prevention programs based on education of both parents and dental practitioners. It is necessary to improve access to dental care and shift focus from curative to preventive procedures. It is also necessary to set real goals for improvement of oral health which can be achieved within a desired time frame, as well as to precisely define measures to be taken.

Key words: *dmft, first permanent molars, children, oral health, Bosnia and Herzegovina*

Introduction

Accurate data about oral health of Bosnia and Herzegovina's children aged six, as standardized group for oral health monitoring in primary dentition, suggested by World Health Organization (WHO), are so far unavailable. In the former Yugoslavia in 1986, the dmft index was 7.4[1]. Ivankovic's 1997 research, conducted in some parts of Bosnia and Herzegovina (BH), pointed to dmft 4.8 in children aged six[2]. Demographic differences in dmft values for BH 6-year olds were not reported previously as well.

Studies on organization, development and accessibility of oral health care in Bosnia and Herzegovina are lacking. Oral health care in BH is organized through public health services and private practice. Accessibility to insurance-funded oral health care differs between administrative units. Private practices as well as public in some regions are not obligated by the law to provide regular dental care for children. Data that illustrate existing differences in dental workforce (dental professionals/population ratio) in regions of BH are available (Table 1).

The involvement of oral health behavior in the oral health of populations has been well recognized in numerous of studies[3,4]. Oral health status has been accepted to be significantly related to oral health behavior[5]. Adequate oral health behavior should include: regular dental checkups starting at age one, regular and adequate tooth brushing with fluoridated toothpaste, usage of topical fluoridation, dental flossing, proper diet content and frequency etc. Previous studies suggested children of BH to be at medium risk for dental caries development due to

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TABLE 1
DEMOGRAPHY OF DENTAL CARE IN EIGHT CANTONS OF FBIH AND RS. DENTAL PERSONEL SERVICES IN BIH[18,19]

BH entities	Representative of Canton/ entities	Administrative division	Population (0–14 years)	Number (n)		
				Dentists	Other specialist	Pediatric dentist
Federation Bosnia and Hercegovina	Sanski Most	Una-Sana canton	9904	47	12	3
Dentists/ Pediatric dentists (n)	Tuzla	Canton Tuzla	26880	32	31	10
	Visoko	Zenica-Doboj canton	9165	76	21	3
7000/48	Goražde	Bosnian Podrinje canton	5042	7	1	0
	Vitez	Central-Bosnia canton	5090	42	9	0
	Mostar	Hercezegovina-Neretva canton	18837	60	28	7
	Široki Brijeg	West-Herzegovina canton	5842	24	6	0
	Sarajevo	Canton Sarajevo	47804	132	89	25
Republic of Srpska	Banja Luka	*Dentists/ Pediatric dentists (n) 581/36				

bad oral hygiene maintenance, lack of preventive programs, inadequate diet content and frequency, occasional usage of topical fluoridation and changes in living conditions[6].

Epidemiological data about the oral health status that our country currently lacks are prerequisite for improvement of oral health. The main aim of the present study was to gather epidemiological data about the oral health of the 6-year olds in Bosnia and Herzegovina and demographic differences if existing. Another aim was to identify the needs from the public oral health care system in Bosnia and Herzegovina related to early permanent dentition by analyzing the condition of first permanent molars (FPM) as an indicator of oral health of permanent dentition. Additional aim was to asses oral health behavior in population studied.

Subjects and Methods

Study area

Bosnia and Herzegovina is made up of two entities (Federation of Bosnia and Herzegovina, Republic of Srpska) and one district (Brčko). Federation of Bosnia and Herzegovina (FBH) is further divided into 10 cantons. It covers an area of some 51,128 km^2, and has population of 3,717,130 people. Bosnia and Herzegovina is an area with low natural fluoride content in the drinking water (less than 0.1 ppm). Fluoride-toothpastes are the only available in BH, but studies on frequency of their usage are lacking.

Study population and sampling procedure

Survey was carried out in 2004 in 8 cantons of the Federation of BH (FBH) and in the Republic of Srpska (RS). Sample stratification was done by size of community according to relevant WHO recommendations[7].

Eight studied cantons from FBH (cantons should be considered only as administrative units) were represented by a sample of participants from one location namely: Sarajevo, Tuzla, Sanski Most, Visoko, Goražde, Vitez, Široki Brijeg and Mostar. Republic of Srpska (RS) was represented by a sample of participants from Banja Luka. Sarajevo was included as a capital city with 4 locations of examination (total 160 participants), Tuzla and Banja Luka, large towns, were included with two locations (80 participants each), and others were included as rural areas, according to number of citizens (40 participants each). The final sample included 560 participants aged six (mean 6.2, SD±0.87) in accordance with the WHO sample size for countries with higher caries prevalence.

Education ministries provided us with the lists of all public primary schools (386 in FBH, 170 in RS and in Brčko District 12). Survey was conducted in public schools as the number of private schools was too low to be significant. In locations chosen by stratification schools were randomly selected from the list. Granted permissions for the research by all respective ministries and other relevant authorities was obtained, and we directly contacted all 14 schools to set up the precise dates of visits and other organizational and administrative elements of the research. In each of the 14 schools the first classroom was chosen (designated A or 1), and children from the next class (designated B or 2) were included if necessary. Children born in 1997 and 1998 were included in the study. In each primary school 40 participants were examined.

Assessment of oral health

One dental team visited primary schools and clinically examined all participants in line with WHO methodology and criteria, using dental mirrors and standard CPI/ WHO periodontal probe, under natural light[7]. When necessary, gross plaque or food debris was removed with cotton-rolls prior to examination. The parameters used to measure oral health status were: dmft index, DMFT index of first permanent molars (FPM) and presence of sealants. Treatment needs (TN) of primary and permanent teeth were assessed as well. Standard WHO CPITN ball-point probe was used to avoid excess probing in the fissures and in order to have a defined minimum diame-

ter of any cavity to be registered as carious. Only caries at the cavitations level and visual caries clearly undermining the enamel was recorded; arrested caries of dentin was also registered as caries. In the primary dentition any missing primary tooth, except anterior teeth, was registered as extracted due to caries. Kinds of restorative material were not registered. Fissure sealants were recorded separately and not included in the f/F component. For each tooth the treatment needs was registered by one of the following scores: TN0=no treatment needed; TNP= preventive, caries arresting care needed; TNF=fissure sealant needed; TN1=one surface filling needed; TN2= two or more surface fillings needed, TN4=pulp care and restoration needed; TN5=indicated for extraction[7].

Clinical examination for recording dental caries was carried out in schools by one investigator, previously trained in using the dmft index on twenty-five participants aged six not included in final sample. Kappa statistics was used to test the intra-investigator reliability. The kappa values estimated from repeat examination for the intra-consistency of the fieldwork investigator was k=0.89.

Questionnaire

Survey questionnaire was completed by parents/foster parents one day prior to the examination. Questionnaires were returned at school along with a granted consent that data from clinical examinations could be used for the study. The questionnaire included questions about oral hygiene habits (frequency of daily tooth brushing), diet contents and frequency (number of daily food intake and daily intake of cariogenic food), leading reasons for dental visits and frequency of dental visits (first visit to dentist and number of visits per year) and accessibility to dental services. For each question, answers were expressed through codes and proceed in further statistical analyze as nominal or ordinal variables.

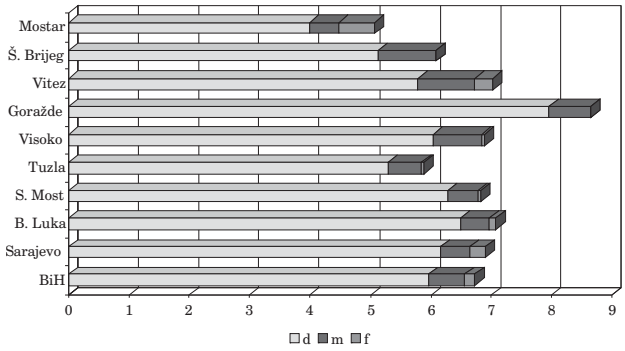

Fig. 1 dmft index and its components in Bosnia and Herzegovina.

Statistical analysis

The findings were coded, noted on a data sheet and later saved electronically. The Statistical Package for Social Science – SPSS for Windows, version 15.0 (SPSS Inc. Chicago, Ill., USA) was used. Mean values, standard deviations and frequency distributions, correlations and factorial analysis of variance – ANOVA were computed.

Results

In 6-year-olds the dmft was 6.71 in that the d-component constituted the major part of the index (88.79%), followed by extracted teeth (8.89%) and a small percentage of filled teeth (2.32%) Percentage of caries free participants aged 6 was 6.8%. Different mean values of dmft and its components were registered in survey locations as presented in Table 2 and Figure 1. ANOVA statistical analyses revealed significant differences between different survey locations in terms of dmft index (p=0.005, F=2.75), dt (p=0.001, F=3.36) and ft (p=0.017, F=2.35). Differences were noticed in needs for preventive dental treatment (p=0.016, F=1.16), one-surface and multi-surface

TABLE 2
DEMOGRAPHIC VALUES OF DMFT INDEX AND FIRST PERMANENT MOLARS STATUS (DMFT, SEALANTS PRESENT AND INDICATED) OF PARTICIPANTS AGED SIX IN BOSNIA AND HERZEGOVINA

Location site	dmft index	d (%)	m (%)	f (%)	First permanent molars		
					DMFT mean (SD)	Fissure sealed mean (SD)	TN* fissure sealant mean (SD)
Sarajevo	6.90	89.31	7.16	3.55	0.57 (1.01)	0.45 (0.96)	2.01 (1.48)
Banja Luka	7.06	91.86	6.73	1.42	0.31 (0.74)	0.08 (0.47)	1.85 (1.43)
Sanski Most	6.83	91.94	7.33	0.73	0.64 (1.20)	0.03 (0.16)	2.21 (1.62)
Tuzla	5.88	90.21	9.15	0.64	0.44 (0.80)	0.06 (0.46)	1.45 (1.32)
Visoko	6.88	88.00	11.64	0.36	0.66 (1.17)	0.00 (0.00)	0.44 (0.74)
Goražde	8.63	92.17	7.83	0.00	1.33 (1.30)	0.00 (0.00)	0.62 (0.90)
Vitez	7.00	82.5	13.57	3.93	0.83 (1.29)	0.14 (0.47)	1.02 (1.17)
Široki Brijeg	6.08	84.36	15.64	0.00	0.95 (1.46)	0.85 (1.47)	1.13 (1.43)
Mostar	5.05	79.21	9.41	11.39	0.42 (0.88)	0.42 (1.03)	1.63 (1.49)

*TN–treatment need

fillings (p=0.016, F=2.38 and p=0.021, F=2.27), pulp treatment and extraction (p=0.004, F=2.82 and p=0.001, F=3.33). The values of all parameters registered in participant's primary dentition were compared with those obtained for Sarajevo, as reference center. Only results that were statistically significant are presented in Table 3.

Average number of first permanent molars among participants was 3.63 (SD±0.95) and varied between 3.58 (SD±0.95) in Sarajevo and 3.14 (SD±1.43) in Banja Luka. DMFT index of FPM was 0.61 (SD±1.08). First permanent molar status was analyzed and significant demographic differences were noticed for all components, DMFT (p=0.000; F=2.75), DT (p=0.024; F=2.22), MT (p=0.003; F=3.00) and FT (p=0.000; F=4.27). Average number of FPM with fissure sealant in BH was 0.25 (SD±0.78) with highest values in Široki Brijeg 0.85 (SD±1.47) followed by Sarajevo and Mostar (0.45, SD±0.95 and 0.42 SD± 1.03). Demographic differences related to FPM treatment needs were evaluated using ANOVA and post-hock LSD test for multiple comparisons. There were significant only for extraction (p=0.001, F=3.48) and fissure sealent need (p=0.000; F=10.88). Values of parameters registered for FPM were compared with values for Sarajevo. Only results that were statistically significant are presented in Table 4.

Total number of the 560 issued questionnaires was returned. But, 344 were filled out to a satisfactory level (response rate of 61.4%). Descriptive statistics (mean values and frequency distribution) indicated that participants had an average of 4 to 5 meals *per* day (61.3% of participants), one serving of sweets *per* day (45%) and that they toothbrush teeth twice daily (60.5%). Most participants (48.5%) had their first dental visit between the age of five and seven. The main reason for the first dental visit was dental checkup (43%). Although, most of participants visit dentists (86.3%), 49% of them had not a regular dentist. The most frequent reason for dental visits was dental checkup (38.5%).

Spearman's correlation was conducted between dmft index and number of meals per day, sweets intake, and number of tooth brushing per day, frequency of dental visits, accessibility of dental care, age at first dental visit, reasons for first dental visit, and most frequent reason for dental visits. Weak correlation was found between sweets intake and dmft index (correlation coefficient 0.13, p=0.013) and between dental visits and dmft index (correlation coefficient 0.13, p=0.13).

Discussion and Conclusion

Among children aged five in eight European countries dmft index varies from 0.8 in Sweden to 3.06 in Scotland[8]. In the former Yugoslavia in 1986, the dmft index for the same age group was 7.4[1] and in Bosnia and Herzegovina, according to Ivankovic's study, it was 4.8 in

TABLE 3
DEMOGRAPHIC DIFFERENCIES IN DMFT INDEX AND TRETMENT NEEDS

Sarajevo mean (SD)		Survey locations	$\overline{X}$ (SD)	Sig.
dmft 6.9 (±4.17)		Goražde	8.58 (±3.2)	0.014
		Mostar	5.05 (±2.95)	0.008
dt 6.2 (±4.17)		Goražde	7.9 (±3.38)	0.011
		Mostar	3.95 (±2.75)	0.001
mt 0.48 (±1.4)		Vitez	0.98 (±1.47)	0.028
ft 0.25 (±0.73)		Mostar	0.61 (±2.18)	0.020
Treatment need	Preventive 7.01 (±4.63)	Goražde	4.38 (±3.68)	0.01
		Mostar	9.13 (±4.56)	0.09
	One surface filling 0.78 (±1.24)	Banja Luka	0.45 (±0.85)	0.19
		Tuzla	0.41 (±0.80)	0.09
		Sanski Most	0.18 (±0.50)	0.01
		Široki Brijeg	0.38 (±0.59)	0.31
	Multi surface filling 2.3 (±2.34)	Banja Luka	3.09 (±2.55)	0.15
		Sanski Most	3.44 (±3.10)	0.007
	Pulp treatment 0.48 (±1.03)	Tuzla	0.23 (±0.59)	0.013
		Goražde	0.21 (±0.83)	0.039
		Vitez	0.10 (±0.37)	0.003
		Mostar	0.13 (±0.41)	0.010
		Sanski Most	0.18 (±0.50)	0.025
		Široki Brijeg	0.08 (±0.35)	0.003
	Extraction 2.65 (±3.16)	Goražde	4.64 (±3.35)	0.000
		Mostar	1.55 (±2.15)	0.042

TABLE 4
DEMOGRAPHIC DIFFERENCIES IN DMFT INDEX AND TRETMENT NEEDS OF FIRST PERMANENT MOLARS (FPM)

Sarajevo mean (SD)		Sites	$\overline{X}$ (SD)	Sig.
DMFT FPM* 0.57 (±1.01)		Goražde	1.33 (±1.30)	0.000
		Široki Brijeg	0.94 (±1.46)	0.49
DT FPM 0.40 (±0.88)		Goražde	0.82 (±1.02)	0.010
MT FPM 0.00 (±0.00)		Vitez	0.07 (±0.34)	0.000
FT FPM 0.18 (±0.58)		Goražde	0.49 (±0.97)	0.004
Fissure sealed 0.45 (±0.95)		Banja Luka	0.08 (±0.47)	0.000
		Tuzla	0.06 (±0.46)	0.000
		Visoko	0.00 (±0.00)	0.001
		Goražde	0.00 (±0.00)	0.001
		Vitez	0.14 (±0.47)	0.018
		Sanski Most	0.03 (±0.16)	0.002
		Široki Brijeg	0.85 (±1.47)	0.004
Treatment need	Multi surface filling 0.09 (±0.41)	Vitez	0.24 (±0.65)	0.020
	Extraction 0.01 (±0.15)	Goražde	0.18 (±0.50)	0.000
	Fissure sealing 2.01 (±1.48)	Tuzla	1.45 (±1.32)	0.003
		Visoko	0.44 (±0.74)	0.000
		Goražde	0.62 (±0.90)	0.000
		Vitez	1.02 (±1.17)	0.000
		Široki Brijeg	1.13 (±1.43)	0.000

*FPM – first permanent molar

1997[2]. In the present study, first one conducted in BH according to WHO recommendations, dmft was 6.71 in that the d-component constituted the major part of the index, which is comparable with values in Croatia (7.7) in younger age group[9]. As it has been recommended in a WHO Oral Health Survey[7], in countries where school entry is later (in majority of Bosnian schools it's at 6 years), these ages can be used as standardized monitoring group. No differences should be expected comparing two different age groups (5 and 6 year – olds) except small differences in a DMFT of first permanent molars.

Comparisons of dmft index values by separate survey locations reveal differences, with the highest values registered in Gorazde (8.63), Banja Luka (7.06) and Vitez (7.00) and the lowest in Mostar (5.05). Established differences in the presence of diseases in different survey locations were expected due to differences in organization, development and accessibility of oral care as well as different geographic characteristics of specific regions (climate, altitude, quality of drinking water etc.). However, this can also be due to different socio-economic factors[6], not analyzed in the present study.

Results obtained for values of dmft index, DMFT FPM and dental treatment needs were compared with relevant values for Sarajevo because the capital city has the greatest number of preventive and pediatric dentists (Table 2). High dmft values were registered among participants in Sarajevo. Results also show that the need for fissure sealing and the number of fissure sealants on FPM was higher in Sarajevo than in any other survey location other than Siroki Brijeg where the number of fissure sealants was significantly higher than those in Sarajevo. For better understanding of the above, it is necessary to mention that Sarajevo Canton has the highest number of registered dental care users. In Mostar, which is the representative of the Herzegovina-Neretva Canton, we registered a significantly lower value of dmft index along with a significantly lower number of caries-affected teeth, as well as high number of filled teeth which can be explained by the number of general and pediatric dentists available there. Mostar had the highest number of primary teeth in need of preventive treatment. In Goražde, which has the least number of dentists, we registered the highest number of caries-affected teeth and highest dmft values. The fact that we had not come across any filled primary teeth in Goražde and that the DMFT values on FPM (1.33±1.30) were higher than anywhere else in BH are reasons for concern. Further on, not a single participant in Goražde had a sealed permanent molar and the need for extraction of permanent molars was significantly higher in Goražde than elsewhere. Tuzla as a representative of the Tuzla Canton, has the second highest number of paediatric dentists and also the second lowest value of dmft index (after Mostar), but it also had a high frequency of caries-affected and extracted primary teeth (90% and 9% respectively). Results for Široki Brijeg, representative of the Herzegovina-Neretva Canton, revealed the highest percentage of extracted primary teeth without any presence of fillings in

primary teeth. It holds the second place in terms of DMFT FPM, but at the same time has the highest number of sealed FPM (0.85±1.47), that clearly requires deeper consideration. Banja Luka had the lowest values of DMFT FPM, but in interpreting these findings one must keep in mind that the number of present FPM was the lowest among participants there.

The care for primary teeth in our country is neglected. The pattern of percentual share of specific components of dmft index (decayed, missing, filled teeth) is unsatisfactory in the whole of Bosnia and Herzegovina. There are probably numerous reasons for this, but most importantly, the difference is due to absence of oral disease prevention and oral health promotion programs in BH which are standard in most developed European countries that also have well-organized system of dental protection. Limiting factors include fragmented health care system in Bosnia and Herzegovina, and curative rather than preventive approach to health care. Analyses have shown that most of our participants had their first dental visit between the ages of five and seven, rather than at the recommended age of one year, which points to a low level of awareness among parents in BH about the importance of primary teeth health. In most surveyed cantons, the responsibility for dental care of children had been given to general dentists. Some studies indicate that our dentists know the basic principles of preventive dental care, but are not giving it sufficient attention in general treatment of their patients[10]. Instructions for oral hygiene are the only preventive measure used by private general dentists in the Sarajevo Canton while professional local fluoridation is provided by under a half of them and that mainly to children[10]. Fissure sealing is an efficient preventive measure, but in contrast to the finding of the above mentioned research that as many as 72% of dentists are using it our study has shown that it is poorly used in all parts of BH.

Sealants are effective in preventing caries, although their efficacy may be related to the background caries prevalence in the population[11]. Opinions about effectiveness of sealants in population such as BH are confusing. Some studies consider it of value while other don't and recommend combination with other preventive measures to reduce caries activity[12–15].

WHO global goals for the year 2000 was that 50% of children aged five to six is caries free, and for the twelve year olds DMFT should not be higher than 3[16]. In this study, percentage of caries free participants was 6.8. The average DMFT of children aged twelve in 2004 was 4.16±2.92 (9% caries free)[17]. Our national goals must be less ambitious than those currently promoted by WHO and FDI, because oral health of our children is much worse than that of the children in most other European countries.

Bosnian national oral health goal should be development and implementation of a disease prevention programs, based on education of parents and dental practitioners as well. It is necessary to improve access to dental care and shift focus from curative to preventive procedures. Realistic goals for improvement of oral health should be set, that can be implemented within desired time frame, as well as to precisely define measures to be taken.

REFERENCES

1. VRBIČ V, VULOVIĆ M, RAJIĆ Z, TOPIĆ B, TATIĆ E, MALIĆ M, Community Dent Oral Epidemiol, 16 (1987) 286. — 2. IVANKOVIĆ A, LUKIĆ IK, IVANKOVIĆ Z, RADIĆ A, VUKIC I, SIMIC A, Community Dent Oral Epidemiol, 31 (2003) 100. — 3. NAKAMURA A, SAKUMA S, YOSHIHARA A, DEGUCHI T, YAGI M, MIYAZAKI H, Int Dent J, 59 (2009) 215. — 4. ANGGRAENI ZR, Int Dent J 59 (2009) 229. — 5. MARTHALER TM, Caries Res, 38 2004 173. — 6. ZUKANOVIĆ A, KOBAŠLIJA S, GANIBEGOVIĆ M, Int Dent J, 57 (2007) 177. — 7. World Health Organization. Oral Health Surveys Basic Methods, 4th ed. (Geneva, WHO, 1997). — 8. MARTHALER TM, O MULLANE DM, VRBIČ V, Caries Res, 30 (1996) 237. — 9. JURIĆ H, KLARIĆ T, ZAGAR M, BUKOVIĆ D JR, JANKOVIĆ B, SPALJ S, Coll Antropol, 32 (2008) 131. — 10. ZUKANOVIĆ A, GANIBEGOVIĆ M, Acta Stomatol Croat, 41 (2007) 193. — 11. AHOVUO-SALORANTA A, HIIRI A, NORDBLAD A, WORTHINGTON H, MAKELA M, Cochrane Database Syst Rev, 3 (2004) 1830. — 12. AHOVUO-SALORANTA A, HIIRI A, NORDBLAD A, MAKELA M, WORTHINGTON HV, Cochrane Database Syst Rev, 4 (2008) 1830. — 13. TICKLE M, YEUNG CA, MILSOM KM, BLINKHORN AS, Community Dent Health, 24 (2007) 135. — 14. HEVDUCK C, MELLER C, SCHWAHN C, SPLIETH CH, Caries Res, 40 (2006) 375. — 15. FRANCIS R, MASCARENHAS AK, SOPARKAR P, AL-MUTAWAA S, Community Dent Health, 25 (2008) 211. — 16. Global goals for oral health in the year 2000. FDI, Int Dent J, 32 (1982)74. — 17. ZUKANOVIĆ A, MURATBEGOVIĆ A, KOBAŠLIJA S, MARKOVIĆ N, GANIBEGOVIĆ M, BEŠLAGIĆ E, Eur J Paediatr Dent, 9 (2008) 118. — 18. SULEJMANAGIĆ H, KOBAŠLIJA S, SADIKOVIĆ M, HUSEINBEGOVIĆ A, SELIMOVIĆ-DRAGAŠ M, BLAGOJEVIĆ O, KLJAKIĆ S, JERLAGIĆ A, ABDOVIĆ M, MAŠALA V, PEJIĆ DUSPARA M, TUČIĆ A, SARIĆ DURAKOVIĆ E, Bilten ljekarske komore Ze-Do kantona, 2 (2001) 41. — 19. Dental Chamber of Federation of Bosnia and Herzegovina. A list of dentists in Bosnia and Herzegovina. Available from: URL: http://www.dental-klds.ba/bosanski/index.html

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POVEZANOST ORALNOG ZDRAVLJA S DEMOGRAFSKIM ZNAČAJKAMA KOD BOSANSKE DJECE DO ŠEST GODINA

S A Ž E T A K

Glavni cilj rada bio je utvrditi epidemiološke indikatore oralnog zdravlja šestogodišnjaka iz Bosne i Hercegovine (BiH), analizirati vrijednosti kep indeksa i potrebnih tretmana s namjerom da se identificiraju razlike u različitim dijelovima BiH. Dodatni cilj je bio identificirati potrebe za tretmanima zuba stalne denticije kroz procjenu stanja prvih stalnih molara (PSM), kao ranih indikatora oralnog zdravlja zuba trajne denticije. Istraživanje je provedeno u 2004. godini u 8 kantona Federacije BiH i u Republici Srpskoj (RS). Ukupan uzorak sačinjavalo je 560 ispitanika uzrasta 6 godina (prosječan broj godina bio je 6,2, SD±0,87). Stomatološke preglede obavio je jedan stomatološki tim prema metodologiji i kriterijima Svjetske zdravstvene organizacije (SZO) za ovakvu vrstu istraživanja. Korišteni su sljedeći parametri: KEP indeks i potrebe tretmana, KEP indeks za PSM sa potrebom tretmana, prisustvo zalivača na fisurama PSM. Podaci o navikama vezanim za oralno zdravlje su prikupljeni anketnim upitnikom. Prosječne vrijednosti kep indeksa bile su 0,61(SD±0,78). Procentualni udio ispitanika bez karijesa iznosio je 6,8%. Prosječan broj PSM sa zaljevenim fisurama je bio 0,25 (SD±1,08). Utvrđene su značajne demografske razlike u vrijednostima ispitivanih parametara. Većina ispitanika (48,5%) prvi put je posjetila stomatologa u uzrastu 5–7 godina. Nacionalni cilj za unapređenje oralnog zdravlja trebao bi biti razvoj i implementiranje preventivnih programa baziranih na educiranju i roditelja i stomatologa. Neophodno je poboljšati dostupnost stomatološkoj zdravstvenoj zaštiti i usmjeriti stomatološku zdravstvenu zaštitu sa kurativnog ka preventivnom pristupu. Također, neophodno je postaviti realne ciljeve za poboljšanje oralnog zdravlja koji se mogu realizirati u precizno definiranom vremenskom roku.