The assessment of primary teeth condition in 6 year-old children in Podgorica municipality

Mirjana Đuričković[1], Mirjana Ivanović[2], Zorica Popović[1]

[1]University of Montenegro, Faculty of Medicine, Department of Dentistry, Podgorica, Montenegro;
[2]University of Belgrade, Faculty of Dental Medicine, Clinic of Preventive and Paediatric Dentistry, Belgrade, Serbia

SUMMARY

Introduction The most frequent oral disease in children is tooth decay. The aim of this study was to determine the health status of primary teeth in 6 year-old children.
Material and method The study included 203 children of both genders living in the territory of Podgorica municipality. Only children whose parents gave consent were included. The parameters used for assessing oral health condition were: number of decayed, missing, and filled teeth due to caries (dmft) and Significant Caries Index (SiC). One dentist clinically examined all respondents in accordance with methodology and criteria of the World Health Organization (WHO).
Results The average value of dmft in 6-year-olds in Podgorica was 4.9. On average, 80.3% of examined children had dental decay. The SiC Index was 8.3. Among examined children, 12.3% had at least one tooth with fissure sealant. In dmft structure dominated untreated decay (92.6%).
Conclusion Results showed high prevalence of primary teeth decay in 6 years old children, indicating the absence of preventive measures and programs in Montenegro.
Keywords: children; dental decay; primary teeth; 6 year-olds

INTRODUCTION

Oral health is an important part of general health and as such is of primary importance for the functioning and quality of life. Preventive programs can improve oral health significantly with low financial implications [1].

Dental decay is the most common oral disease. It is a chronic, infectious, progressive, multifactorial disease, where nutrition plays a key role in its development. Children are particularly predisposed to the development of dental decay. Its complications have significant effect on overall child health, nutrition, growth and weight [2, 3, 4]. Also, dental decay causes discomfort, pain, sleeping problems, learning and absence from school [5, 6, 7]. Odontogenic infections as a result of untreated dental decay are the most common cause of hospitalization of young children [7].

Primary teeth are extremely important for nutrition and speech, they preserve space for permanent teeth and serve as guides, and there is also aesthetic role. In addition, primary teeth condition influences permanent teeth health as well. Oral hygiene habits and children's diet are encouraged by the family [8]. Early start of dental decay is an indicator of missed opportunities for preventive care and endangers children's general health. Therefore, it is necessary to include preventive-prophylactic methods early in life. Epidemiological data provide insight into disease developing and can be used to create preventative programs with the aim of improving oral health [9].

Montenegro health system is currently focused on a curative approach rather than preventative measures. Montenegro is an area with low fluoride content in drinking water (from 0.05 to 0.2mg / L).

The aim of this study was to determine the health status of primary teeth in 6 year-old children.

METHODOLOGY

The survey included 203 children of both genders living in the territory of Podgorica Municipality, who came to dental examinations at the Faculty of Medicine, during 2017. Only children who were not older than 6 years were included in the study, medically healthy and without a mental, physical and sensory handicap. One dentist according to the principles of good clinical practice performed all clinical exams. Kappa statistics were used to test the researcher reliability. Kappa's value was 0.94.

The parameters used to assess oral health condition were: number of decayed, missing, and filled teeth due to caries (dmft) and Significant Caries Index (SiC), according to the World Health Organization recommendations [10]. All children that participated in the study were screened with standard dental diagnostic tools on dry teeth, in dental chair using overhead light. Clearly visible lesions with formed cavity on the tooth surface were registered as tooth decay, while changes in the transparency or initial demineralization of enamel with intact surface, without cavitation, was registered as healthy tooth. The state of deciduous dentition was estimated using the dmft index as described by the WHO criteria and procedures for ep-

Address for correspondence: Mirjana ĐURIČKOVIĆ, University of Montenegro, Faculty of Medicine, Department of Dentistry, Kruševac bb, 81 000 Podgorica, Montenegro; *miradjurickovic@gmail.com*

idemiological research [10]. In addition, demographical data, age, gender, school and address of residence (urban or suburban) were entered:

- Decayed teeth - d, missing teeth - m, filled teeth - f (dmft) (for primary dentition) is a method to numerically express the caries experience and it is obtained by calculating the number of decayed (d), missing (m) and filled (f) teeth (t).
- dmft free and application of preventive measures - fissure sealants.

The SiC index (significant caries index) represents the upper third of the frequency distribution of dmft. It is introduced with the aim of pointing to respondents with the highest caries values in each population. This index is used as an addendum to mean values of dmft, and gives true picture of patients with highest caries risk. It is obtained in the following way: all examined children are distributed by dmft values; then one third of children with the highest values of dmft are selected and obtained number represents the subset of SiC; the resulting dmft score for this subset represents the value of SiC [11, 12].

Statistical data processing was done in SPSS v.11.5 for Windows (SPSS Inc., Chicago, IL, USA). Descriptive and analytical statistics were used to describe the results. To test statistical significance in the mean values between the two independent samples, Student's t-test I X^2 test were used. Values of $p < 0.05$ were considered statistically significant.

RESULTS

A total of 203 children, 99 girls and 104 boys from urban and suburban areas of Podgorica municipality were examined. No statistically significant difference was found in regards to gender and place of residence (χ^2 test, p > 0.05). The distribution of six-year-olds according to gender and place of resedence is shown in Table 1.

On average, 80.3% of examined children had dental decay. The average value of dmft index in 6-year-olds in Podgorica was 4.9 (4.5 to 5.6). Lower dmft index was recorded in girls compared to boys. Also, children from urban residence had lower values of this index than the children from the suburban residences. However, there were no statistically significant differences in the values of this index in relation to sex and place of residence (t-test, p > 0.05; Table 2).

In the dmft structure dominated decayed teeth (92.6%) followed by filled teeth (5.7%) and small percentage of extracted teeth (1.2%). Statistically significant differences were not found in the dmft structure in relation to the gender and place of residence (Table 3).

SiC's subgroup included 67 children. The index (upper third of the frequency allocation dmft) was 8.36. Among the examined children, 12.3% had at least one tooth with fissure sealant.

DISCUSSION

Primary teeth are very important. They stimulate normal growth and development of jaws, allow chewing, partici-

Table 1. Distribution of respondents (6 year-olds) by gender and place of residence
Tabela 1. Raspodela šestogodišnjaka prema polu i mestu stanovanja

Residence Mesto stanovanja	Gender Pol			
	Boys (n, %) Dečaci (n, %)		Girls (n, %) Devojčice (n, %)	
Urban Grad	68	49.6%	69	50.4%
Suburban Prigradski deo	36	54.5%	30	45.5%
Total Ukupno	104	51.2%	99	48.8%

Table 2. Caries distribution (dmft persons and dmft) in relation to gender and place of residence
Tabela 2. Raspodela kep i kep šestogodišnjaka prema polu i mestu stanovanja

Index	Urban Gradski deo	Suburban Prigradski deo	Total Ukupno
	B/G/B+G	B/G/B+G	B/G/B+G
dmft persons kep osoba	77.9/76.8/77.3	86.1/86.6/86.3	80.7/79.7/80.3
dmft kep	4.7/4.5/4.6	5.6/5.2/5.4	5.0/4.7/4.9

B – boys; G – girls; B+G – boys+girls (t-test, p > 0.05)
B – dečaci; G – devojčice; B+G – dečaci+devojčice (t-test, p > 0,05)

Tabela 3. Structure of dmft index presented in percentage
Tabela 3. Struktura dmft indeksa u procentima

Index	Parameters of dmft Dmft parametri	Boys (%) Dečaci (%)	Girls (%) Devojčice (%)
dmft	d (k)	93.3	91.1
	m (e)	m (e)	1.1
	f (p)	5.4	7.8

dmft – decay, missing, filled teeth
(t-test, p > 0.05)

pate in speech development, preserve the space for their succesors, and participate in aesthetic appearance. Healthy primary teeth allow permanent teeth to grow in healthy environment. The condition of deciduous dentition is largely reflected on the state of permanent dentition.

The results of our study showed that primary teeth did not receive adequate attention. The percentage of children with all healthy teeth in our study was low (19.9%). High values of dmft index indicated high distribution of decay in primary teeth both in boys and girls, with somewhat worse picture in Podgorica's suburban area. When compared with similar epidemiological studies from neighboring countries, it is not encouraging picture. Average values of number of decayed primary teeth per respondent ranged from 4.17 in Republika Srpska, while the percentage of children with all healthy teeth was 3.94% [8]. In Serbia, 20.6% of children aged 6 years had all healthy teeth [13]. In Croatia, the value of the dmft index for six-year-olds was 4.7 [14], while in Kosovo the value of the dmft index ranged from 6.31 for boys to 6.56 for girls [15]. The average dmft index for children from Poland was 5.56 [16]. However, in developed countries dmft index ranged from 2.1 in Austria [17], 2.0 in Australia [18], 1.9 in Switzerland [19], 0.9 in Germany [20].

Special attention was paid to high-risk individuals, and an analysis of the average dmft index of one third of

the most affected respondents was performed giving SiC index. The average dmft index for 6-year-olds in Austria was 2.1 and the SiC was 5.3 [17]. The SiC value in Italy amounted to 3.8 a dmft index 1.4 [21]. In Ireland, the SiC index for children 6 years was 4.0, and dmft 1.3 [22]. The value of this index for children in Montenegro was 8.36, which is much higher than the above-mentioned values.

The percentage of our respondents with at least one tooth with fissure sealant was very low (12.3%). Small percentages of fissure sealants also had children from Kosovo (1.3%) [15], while no children were found with fissure sealant of this age in Republika Srpska [8]. Fissure sealants have proved to be good prophylactic measures in the prevention or control of decay, and therefore should be applied.

Efficiency of the organization of dental health care can be best achieved by observing the dmft structure. After analyzing individual components of dmft, it was observed that decayed teeth in our subjects were dominant. Dental caries was the most represented in the structure of dmft both in boys and girls. There was very small percentage of filled teeth. Similar results were found in Republika Srpska [8]. Although the Health Insurance Fund offers free dental services in Montenegro to this population group, the prevalence of decay is high. This situation is likely the result of non-educated parents who believe that primary dentition will be replaced by permanent and children would be brought to dentist mainly when they have toothache. Health habits and nutrition control are very important in preventing oral diseases [23]. It is therefore necessary to propose a plan of preventive activities towards the education of parents and children.

CONCLUSION

The main reasons for poor oral health in 6 years old children is the absence of population prevention programs and dental services oriented mostly toward treating disease. It is important to stress preventive and prophylactic measures, and raise the level of oral health consciousness, both at individual and social levels.

REFERENCES

1. Petersen PE. Global policy for improvement of oral health in the 21st century-implications to oral health research of World Health Assembly 2007, World Health Organization. Community Dent Oral Epidemiol. 2009; 37(1):1–8.
[DOI: 10.1111/j.1600-0528.2008.00448.x]
2. Heinrich-Weltzien R, Monse B, Benzian H, Heinrich J, Kromeyer-Hauschild K. Association of dental caries and weight status in 6- to 7-year-old Filipino children. Clin Oral Investig. 2013; 17(6):1515–23. [DOI: 10.1007/s00784-012-0849-3] [PMID: 23053701]
3. Duijster D, Sheiham A, Hobdell MH, Itchon G, Monse B. Associations between oral health-related impacts and rate of weight gain after extraction of pulpally involved teeth in underweight preschool Filipino children. BMC Public Health. 2013; 13:533. [DOI: 10.1186/1471-2458-13-533] [PMID: 23731717]
4. Benzian H, Monse B, Heinrich-Weltzien R, et al. Untreated severe dental decay: a neglected determinant of low Body Mass Index in 12-year-old Filipino children. BMC Public Health. 2011; 11:558. [DOI: 10.1186/1471-2458-11-558] [PMID: 21752286]
5. Leal SC, Bronkhorst EM, Fan M, Frencken JE. Untreated cavitated dentine lesions: impact on children's quality of life. Caries Res. 2012; 46(2):102–6. [DOI: 10.1159/000336387] [PMID: 22398411]
6. Seirawan H, Faust S, Mulligan R. The impact of oral health on the academic performance of disadvantaged children. Am J Public Health. 2012; 102(9):1729–34. [DOI: 10.2105/AJPH.2011.300478] [PMID: 22813093]
7. Agaku IT, Olutola BG, Adisa AO, Obadan EM, Vardavas CI. Association between unmet dental needs and school absenteeism because of illness or injury among U.S. school children and adolescents aged 6-17years, 2011–2012. Prev Med. 2015; 72:83–8. [DOI: 10.1016/j.ypmed.2014.12.037] [PMID: 25575801]
8. Janković S, Davidović B, Tpmić S. Assessment of Deciduous Dentition in 6 -10 Year Old School Children. Stomatološki glasnik Srbije. 2012; 59(4):183–9. [DOI: 10.2298/sgs1204183]
9. Martinović B, Ilić A, Cvetković A, Milojković Z, Stošović-Kalezić I, Mladenović R, et al. The status of dental health in children aged 12 and 15 years. Praxis Medica. 2016; 45(1):11–5. [DOI: 10.5937/pramed1601011M]
10. World Health Organization. Oral Health Surveys. Basic Methods. 4th edn. Geneva: World Health Organization; 1997.
11. Bratthall D. Introducing the Significant Caries Index together with a proposal for a new oral health goal for 12-year-olds. Int Dent J. 2000; 50:378–84. [DOI: 10.1111/j.1875-595X.2000.tb00572.x] [PMID: 11197197]
12. Nishi M, Stjernswärd J, Carlsson P, Bratthall D. Caries experience of some countries and areas expressed by the Significant Caries Index. Community Dent Oral Epidemiol. 2002; 30:296–301. [DOI: 10.1034/j.1600-0528.2002.00054.x] [PMID: 12147171]
13. Ivanović M, Carević M, Marković D. Protokoli u stomatologiji. Beograd: Stomatološki fakultet; 2009.
14. Jokić NI, Bakarcić D, Janković S, Malatestinić G, Dabo J, Majstorović M, et al. Dental caries experience in Croatian school children in Primorsko-Goranska county. Cent Eur J Public Health. 2013; 21:39–42. [DOI: 10.21101/cejph.a3752] [PMID: 23741899]
15. Ferizi L, Dragidella F, Staka G, Bimbashi V, Mrasori S. Oral Health Status Related to Social Behaviors among 6 - 11 Year Old Schoolchildren in Kosovo. Acta stomatol Croat. 2017; 51(2):122–32. [DOI: 10.15644/asc51/2/5]
16. Bagińska J, Rodakowska E, Wilczyńska-Borawska M, Jamiołkowski J, Index of clinical consequences of untreated dental caries (pufa) in primary dentition of children from north-east Poland. Adv Med Sci. 2013; 58(2):442–7. [DOI: 10.2478/v10039-012-0075-x] [PMID: 23793065]
17. Personal Communication – Dr Andrea Bodenwinkler, GÖG, 2012.
18. Armfield JM, Spencer AJ, Berennan DA. Dental Health of Australia's teenagers and pre teen children: the Child Dental Health Survey, Australia 2003-04. Dental Statistics and Research Series no. 52. Cat no Den 199. Canberra: AOHW. (Full Report)
19. Waltimo T, Menghini G, Weber C, Kulik EM, Schild S, Meyer J. Caries experience in 7-, 12-, and 15-year-old schoolchildren in the canton of Basel-Landschaft, Switzerland, from 1992 to 2011. Community Dent Oral Epidemiol. 2016; 44(3):201–8. [DOI: 10.1111/cdoe.12206] [PMID: 26709202]
20. Grund K, Goddon I, Schüler M, Lehmann T, Heinrich-Weltzien R. Clinical consequences of untreated dental caries in German 5- and 8-year-olds. BMC Oral Health. 2015; 15:140. [DOI: 10.1186/s12903-015-0121-8] [PMID: 26538196]
21. Ferro R, Besostri A, Olivieri A. Caries prevalence and tooth surface distribution in a group of 5-year-old Italian children. Eur Arch Paediatr Dent. 2009; 10:33–7. [PMID: 19254525]
22. Whelton H, Crowley E, O'Mullane D, Harding M, Guiney H, Cronin M, et al. North South Survey of Children's Oral Health in Ireland 2002. Dublin: Department of Health and Children; 2006.
23. Đorđević A. Parents´ Knowledge about the Effects of Oral Hygiene, Proper Nutrition and Fluoride Prophylaxis on Oral Health in Early Childhood. Balk J Dent Med. 2018; 2–31. [DOI: 10.2478/bjdm-2018-0005]

Procena stanja mlečnih zuba kod dece uzrasta šest godina na teritoriji opštine Podgorica

Mirjana Đuričković[1], Mirjana Ivanović[2], Zorica Popović[1]

[1]Univerzitet Crne Gore, Medicinski fakultet, studijski program Stomatologija, Podgorica, Crna Gora;
[2]Univerzitet u Beogradu, Stomatološki fakultet, Klinika za dečju i preventivnu stomatologiju, Beograd, Srbija

KRATAK SADRŽAJ

Uvod Najčešće oralno oboljenje kod dece je karijes zuba.

Cilj ove studije je bio utvrđivanje stanja zdravlja mlečnih zuba dece uzrasta šest godina.

Metodologija Istraživanjem je obuhvaćeno 203 dece oba pola koja žive na teritoriji opštine Podgorica. U istraživanje su bila uključena samo ona deca čiji su roditelji svojim potpisom dali saglasnost. Parametri korišćeni za procenu stanja oralnog zdravlja bili su indeksi prosečnog broja karijesnih, izvađenih i zuba plombiranih zbog karijesa (kep) i indeksi značajnog karijesa (SiC). Jedan stomatolog klinički je pregledao sve ispitanike u skladu sa metodologijom i kriterijumima Svetske zdravstvene organizacije (SZO).

Rezultati Procenat dece sa obolelim mlečnim zubima iznosi je 80,3%. Prosečan broj obolelih mlečnih zuba po ispitaniku iznosio je 4,9. SiC je iznosio 8,3. Među ispitanom decom 12,3% je imalo najmanje jedan zub sa prisutnim zalivačem fisura. U strukturi kep-a dominirao je nesanirani karijes (92,6%).

Zaključak Naši rezultati pokazali su veliku prevalenciju karijesa mlečnih zuba kod dece uzrasta šest godina, što upućuje na nepostojanje preventivnih mera i programa u Crnoj Gori.

Ključne reči: deca; karijes; mlečni zubi; šestogodišnjaci

UVOD

Oralno zdravlje je važan deo opšteg zdravlja i kao takvo je od primarnog značaja za funkcionisanje i kvalitet života. Kvalitet oralnog zdravlja se može poboljšati na ekonomičan način, koristeći preventivne programe [1].

Najčešća bolest usne duplje je karijes zuba. Karijes je hronično, infektivno, progresivno, multikauzalno oboljenje, pri čemu ishrana ima ključnu ulogu u njegovom razvoju. Deca su posebno predisponirana za razvoj dentalnog karijesa. Komplikacije dentalnog karijesa imaju značajan uticaj na opšte zdravlje dece, ishranu, rast i telesnu težinu [2, 3, 4] izazivajući neprijatnost, bol, probleme sa spavanjem, učenjem i odsustvo iz škole [5, 6, 7]. Nadalje, odontogene infekcije kao posledica nelečenog zubnog karijesa su najčešći razlog hospitalizacije male dece [7].

Primarni zubi su izuzetno važni, jer oni učestvuju u funkciji ishrane, govora, čuvaju mesto za stalne zube i služe im kao vodiči, pri čemu ne smemo zaboraviti i estetsku ulogu. Zdravlje primarnih zuba je važno zbog zdravlja trajnih zuba, između ostalog. Oralnohigijenske navike i navike u ishrani dece potiču iz porodice [8]. Rani početak karijesa predstavlja indikator propuštenih prilika za preventivnu negu i ugrožava opšte zdravlje deteta. Zato je potrebno što ranije uključiti preventivno-profilaktičke metode. Epidemiološki podaci pružaju uvid u rasprostranjenost oboljenja i mogu se upotrebiti za izradu preventivnih programa sa ciljem unapređenja oralnog zdravlja [9].

Zdravstveni sistem Crne Gore trenutno je fokusiran na kurativni pristup, a ne na preventivne mere. Crna Gora je područje sa niskim sadržajem fluorida u vodi za piće (od 0,05 do 0,2 mg/L). Cilj ove studije je bio da se utvrdi zdravstveni status mlečnih zuba dece uzrasta šest godina.

METODOLOGIJA

Istraživanjem je obuhvaćeno 203 dece oba pola koja žive na teritoriji opštine Podgorica a koja su dolazila na stomatološke pregledе na Medicinskom fakultetu tokom 2017. godine. U studiju su bila uključena samo deca koja nisu bila starija od šest godina, medicinski zdrava i bez mentalnog, fizičkog i senzoričnog hendikepa. Sve kliničke preglede obavio je jedan stomatolog po principima dobre kliničke prakse. U testiranju pouzdanosti istraživača primenjivana je statistika kappa. Kappa vrednosti procenjene posle ponovnog pregleda za intrakonzistenciju istraživača iznosile su 0,94.

Parametri korišćeni za procenu stanja zdravlja mlečnih zuba bili su indeksi prosečnog broja karijesnih, izvađenih i plombiranih mlečnih zuba zbog karijesa (kep) i indeksi značajnog karijesa (SiC) prema preporukama Svetske zdravstvene organizacije [10].

Sva deca koja su učestvovala u istraživanju pregledana su standardnim stomatološkim dijagnostičkim sredstvima na suvim zubima, pri veštačkom osvetljenju na stomatološkoj stolici. Jasno vidljive lezije sa formiranim kavitetom na površini zuba registrovane su kao karijes zuba, dok su promene u transparenciji ili početne demineralizacije gleđi sa intaktnom površinom, bez kavitacije, registrovani kao zdravi zubi. Stanje denticije procenjeno je korišćenjem kep indeksa, kao što je opisano u kriterijima i postupcima SZO za epidemiološka istraživanja [10]. Uz to, upisivani su demografski podaci, uzrast, pol, škola i mesto stanovanja (gradsko i prigradsko naselje):

– zub s karijesom – k, izvađeni zub – e, zub s ispunom – p i kep indeks. Kep indeks (za mlečnu denticiju) metoda je numeričke ekspresije incidencije karijesa, a dobija se zbirom broja karioznih (k), ekstrahiranih zuba (e) i zuba s ispunom (p).

– kep je nula i primena preventivnih mera – zalivanje fisura.

Indeks SiC predstavlja Indeks značajnog karijesa i gornju trećinu frekvencijske raspodele kep/kep-a. Uveden je sa ciljem da ukaže na osobe sa najvišim vrednostima karijesa u svakoj populaciji. Ovaj indeks se koristi kao dopuna srednjim vrednostima kep/kep-a, i daje pravu sliku pacijenata sa rizikom od karijesa. Dobija se na sledeći način: sva pregledana deca sortiraju se prema vrednostima kep/kep-a; zatim se jedna trećina pregledane dece sa najvišim vrednostima kep/kep-a selektuje i

dobijeni broj predstavlja podskup SiC, te tako dobijeni rezultat kep/kep-a za ovaj podskup predstavlja vrednost SiC [11, 12].

Statistička obrada podataka urađena je u programu SPSS v.11.5 for Windows (SPSS Inc., Chicago, IL, USA). Za opis rezultata korišćene su metode deskriptivne i analitičke statistike. Za testiranje statističke značajnosti u prosečnim vrednostima između dva nezavisna uzorka korišćen je Studentov t-test i χ^2 test. Vrednosti p manje od 0,05 smatrale su se statistički značajnim.

REZULTATI

Ukupno je pregledano 203 dece, 99 devojčica i 104 dečaka iz gradskog i prigradskog dela podgoričke opštine. Analizom podataka utvrđeno je da ne postoji statistički značajna razlika kada su u pitanju pol i mesto stanovanja (χ^2 test, p > 0,05). Zastupljenost ispitivanih šestogodišnjaka prema polu i tipu naselja prikazana je u Tabeli 1.

Procenat dece sa obolelim mlečnim zubima iznosi je 80,3%. Najniži procenat dece sa obolelim zubima zabeležen je kod devojčica, a najviši kod dečaka. Statistički značajnih razlika u vrednostima ovog indeksa nije bilo u odnosu na pol i mesto stanovanja (t-test, p > 0,05; Tabela 2).

Prosečan broj obolelih mlečnih zuba po ispitaniku iznosio je 4,9, a kretao se od 4,5 do 5,6. Vrednosti ovog indeksa u odnosu na pol bile su veoma ujednačene. Deca gradskog područja imala su niže vrednosti ovog indeksa u odnosu na svoje vršnjake iz prigradskog naselja, ali ta razlika nije bila statistički značajna (t-test, p > 0,05). Vrednosti kep indeksa u odnosu na pol i mesto stanovanja prikazane su u Tabeli 2.

U strukturi kep-a dominirao je nesanirani karijes (92,6%), zatim slede zubi sa ispunima (5,7%) i mali postotak ekstrahiranih zuba (1,2%). Statistički značajne razlike nisu zabeležene u strukturi kep-a u odnosu na pol i mesto stanovanja (Tabela 3).

Podskup SiC-a činilo je 67 dece. SiC indeks (gornja trećina frekvencijske raspodele kep-a) iznosio je 8,36.

Bilo je 12,3% dece koja su imala makar jedan prisutan zalivač fisura u ustima.

DISKUSIJA

Mlečni zubi su veoma značajni. Oni podstiču normalan rast i razvoj vilice, omogućavaju žvakanje, učestvuju u razvoju govora, čuvaju mesto za svoje zamenike i učestvuju u estetskom izgledu lica. Zdravi mlečni zubi omogućavaju stalnim zubima da niknu u zdravoj sredini. Stanje mlečne denticije u velikoj meri se odražava na stanje stalne denticije.

Rezultati naše studije pokazuju da se mlečnim zubima ne posvećuje adekvatna pažnja. Procenat dece sa svim zdravim zubima u našem istraživanju bio je nizak i iznosio je 19,9%. Dobijene vrednosti KIP-a upućuju na visoku rasprostranjenost karijesa mlečnih zuba i kod dečaka i kod devojčica, sa nešto nepovoljnijom slikom u prigradskim naseljima Podgorice. Ako se izvrši poređenje sa sličnim epidemiološkim istraživanjima iz

okruženja, ali i šireg područja, dobija se nimalo ohrabrujuća slika. Prosečne vrednosti broja obolelih mlečnih zuba po jednom ispitaniku kretale su se u rasponu od 4,17 u Republici Srpskoj, dok je procenat dece sa svim zdravim zubima iznosio 3,94% [8]. U Srbiji je 20,6% dece uzrasta šest godina imalo sve zube bez karijesa [13]. U Hrvatskoj je vrednost KIP-a za šestogodišnjake iznosila 4,7 [14], dok se na Kosovu vrednost KIP-a kretala od 6,31 za dečake do 6,56 za devojčice [15]. Vrednost KIP-a za decu iz Poljske iznosio je 5,56 [16]. Upoređivanje vrednosti kep-a kod dece uzrasta od šest godina u Crnoj Gori sa onima ustanovljenim za istu populacionu grupu, koje se kreću u rasponu od 2,1 u Austriji [17], 2,0 u Australiji [18], 1,9 u Švajcarskoj [19], 0,9 u Nemačkoj [20], upućuje na činjenicu da stanje oralnog zdravlja naših šestogodišnjaka nije zadovoljavajuće.

Posebna pažnja posvećuje se visokorizičnim pojedincima, i vrši se analiza prosečnog kep indeksa trećine najviše pogođenih ispitanika. Vrednost prosečnog kep indeksa za šestogodišnjake u Austriji iznosio je 2,1 a indeks SiC 5,3 [17]. Vrednost SiC u Italiji iznosila je 3,8, a kep indeksa 1,4 [21]. U Irskoj je SiC indeks za šestogodišnjake iznosio 4,0, a DMFT 1,3 [22]. Zabeležena vrednost ovog indeksa za mališane iz Crne Gore bila je 8,36, što je mnogo više od navedenih vrednosti.

Procenat naših ispitanika sa barem jednim prisutnim zalivačem fisura bio je vrlo nizak (12,3%). Mali procenat zalivenih fisura imala su i deca sa Kosova (1,3%) [15], dok kod dece ovog uzrasta u Republici Srpskoj nije pronađen nijedan zalivač [8]. Zalivači fisura dokazani su kao dobra profilaktička mera u prevenciji, odnosno kontroli karijesa, pa se zbog toga moraju primenjivati.

Efikasnost načina organizovanja stomatološke zdravstvene zaštite najbolje se može ostvariti posmatranjem strukture kep-a. Posle analize pojedinih komponenti kep-a primećeno je da su karijesni zubi kod naših ispitanika dominantni. Karijes je dominirao i kod dečaka i kod devojčica. Učesnici naše studije imali su veoma mali procenat plombiranih zuba. Slični rezultati ustanovljeni su u Republici Srpskoj [8]. Iako Fond za zdravstveno osiguranje nudi besplatne stomatološke usluge u Crnoj Gori ovoj populacionoj grupi, rasprostranjenost karijesa je visoka. Ovakvo stanje verovatno je rezultat neprosvećenosti roditelja koji smatraju da će se mlečna denticija zameniti stalnom i decu dovode kod stomatologa uglavnom kad imaju zubobolju. Zdravstvene navike i kontrola ishrane su veoma značajne u prevenciji oralnih oboljenja [23]. Zato je neophodno predložiti plan preventivnih aktivnosti usmerenih na edukaciju roditelja i dece.

ZAKLJUČAK

Glavni razlozi za ovakvo stanje oralnog zdravlja šestogodišnjaka su odsustvo populacionih preventivnih programa i uglavnom kurativno usmerena stomatološka politika, kao i nedostatak promocije oralnog zdravlja.

Potrebno je preduzeti neophodne mere za poboljšanje oralnog zdravlja, sa posebnim akcentom na preventivnim i profilaktičkim merama, kao i za podizanje nivoa zdravstvene svesti na individualnom i društvenom nivou.