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Dental Status of Children with Special Needs in Banjaluka

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SUMMARY

Introduction Dental status in people with special needs is generally non satisfactory. Children with special needs have difficulties in maintaining oral hygiene, they require special conditions for dental care and because of previous negative experience they often show emotional vulnerability. Development of oral and dental diseases in these subjects is the consequence of insufficient knowledge about the causes of these diseases, poor eating habits, low level of oral hygiene and inadequate number of visits to dentist. The aim of this study was to determine dental status and the prevalence of dental caries in children with special needs in the institution "Zaštiti me" in Banjaluka.

Material and Methods The study included 82 children (53 boys and 29 girls) with mixed and permanent dentition age 5-15 years. They were divided into four groups according to their diagnosis. The first group included children with combined disorders of speech development and hearing, in the second group were children who had neurological disorders without mental retardation, third group included children with mild mental retardation and fourth group comprised children with moderate mental retardation. For each patient the number of teeth, the presence of caries and restorations, the number of extracted teeth, the presence of residual roots and the presence and number of fixed restorations were recorded.

Results Mean DMFT of all teeth was 9.77. Detailed analysis showed the greatest number of decayed teeth (83.83%), and filled teeth (9.52%) whereas the least number was for extracted teeth (6.65%). The highest percentage of children (79.27%) did not have any class I composite filling or one amalgam filling class I (82.92%). Only one child had a fixed restoration.

Conclusion The status of teeth in children with special needs in the institution "Zaštiti me" in Banjaluka indicated high percentage of carious teeth, small percentage of restorations and extracted teeth, and inadequate oral hygiene.

Keywords: caries; children; dental status; extracted teeth; restorations; special needs

INTRODUCTION

Oral health is an important part of general health and an important indicator of the quality of life. Diseases such as dental caries, periodontal disease, teeth loss, and changes in oral mucosa are serious health problems with high frequency in many countries in the world. Oral diseases significantly reduce the quality of people's lives, and the cost of treating these diseases is significant burden on the health fund [1]. The World Dental Federation (FDI) and the World Health Organization (WHO) have set standards of oral health and associated tissues that enable food intake, speech and socializing without active disease, health disorder or disability that add to overall good health and well-being [2]. The WHO has adopted in 2000 the strat-

egy for prevention of oral diseases and promotion of oral health and defined indicators of oral health, such as: number of visits to dentist, frequency of brushing teeth, complete loss of teeth, fluoridation, treated caries, untreated caries, dental erosions, oral and pharyngeal cancers. Since 60-90% of school children in the world have dental caries, the WHO and the FDI introduced in 2005 the program of pedagogical prevention and promotion of oral health through schools [3]. Bosnia and Herzegovina is one of the countries with high prevalence of dental caries among school children. According to the report of the WHO 94-96% of school children have caries while 78% of the population over 65 years is edentulous [2].

The WHO defines child with special needs as a child that in a given period of time is not physically or mentally

able to participate in normal activities of its age group. Mentally challenged persons, mostly because of impaired judgment and understanding, and lack of independence live in specialized institutions and require special attention and care, especially in terms of oral health. Oral health has a major impact on everyday living and quality of life of these people since they usually have other diseases that worsen their health. Children with special needs have difficulties in maintaining oral hygiene, they require special conditions, and because of previous negative experience they often show emotional vulnerability in dental office. Significant role in the development of oral and dental diseases has insufficient knowledge about the causes of these diseases, poor eating habits, low level of oral hygiene and inadequate number of visits to dentist [4]. One of possible ways to treat oral diseases in persons with mental disabilities is to perform dental interventions in general anaesthesia. It facilitates the treatment both for individuals and therapists ensuring proper, detailed and complete dental care.

Raising the level of oral health in these subjects can be successfully achieved by proper application of procedures and preventive measures, and continuous monitoring of the status of their mouth and teeth. It is the fact that children with special needs have lower level of oral hygiene, more frequently periodontal diseases, higher prevalence of untreated caries, more extracted and fewer restored teeth than healthy children.

The aim of this study was to determine the status of teeth and the prevalence of dental caries in children with special needs in the institution "Zaštiti me" in Banjaluca.

MATERIAL AND METHODS

The study was conducted as a cross-sectional study from January to April 2010 among the residents from the institution "Zaštiti me" in Banjaluca. The study included 82 children (53 boys and 29 girls) with mixed and permanent dentition age 5-15 years. Respondents were divided in four groups according to diagnosis. The first group included 6 children with combined disorders of speech development and hearing; in the second group were 12 children with neurological disorders without mental retardation; the third group included 20 children with mild mental retardation; and the fourth group consisted of 44 children with moderate mental retardation.

All parents or guardians were explained the goal of the research and how data would be collected. Each parent/guardian signed voluntary consent for participation in the research.

Dental examinations were conducted in accordance to guidance from the WHO. Teeth examinations were performed using dental mirror and straight and proximal probes on daylight [5]. The following data was obtained: decay (K), healthy tooth (Z), tooth eruption (N), extraction (E), andontia (X); fracture (F), radix relicta (R), amalgam fillings (A), composite restoration (C); glass-ionomer restorations (G) and ceramic crowns (KR).

RESULTS

The results are shown in Tables 1-4. The mean DMFT of all examined teeth was 9.77. According to the analysis of subcomponents of DMFT, the most frequent were decayed 83.83%, restored 9.52% and extracted teeth 6.65%.

The first group of children had the DMFT index of 13.84. Most teeth were affected by caries (69.87), 15.68 were extracted, whereas the least were restored teeth (8.45). In the second group of children the DMFT index was 9.92. Most teeth were affected by caries (68.25), restorations had 9.68 teeth, while 7.86 teeth were extracted. For the third group of children the DMFT index was 7.20. Most teeth were affected by caries (60.42), restorations (11.94) while 4.72 were extracted. In the fourth group of children the DMFT index was 10.35. Most teeth were carious (7.29), restored (8.31), and extracted (3.29) (Table 1).

Table 2 shows the distribution of composite restorations in examined children. The greatest percentage of children 79.27% did not have a single composite restoration of class I, and 93.90% of children did not have composite restorations of class II. Some respondents (13.41%) had one class I composite restoration, 2.44% of the children had two composite restorations, 2.43% three and 2.43% had four composite restorations. The class II composite restorations had 3.66% of examined children and 2.44% had two class II composite restorations. None of 82 children had composite restorations of class IV and V.

Table 3 shows the distribution of amalgam restorations in examined children. Most children did not have any amalgam fillings. 82.92% of children had none amalgam fillings of class I whereas 90.24% had no amalgam fillings of class II. Only one child had 4 amalgam fillings of class I (1.21%), while eight of them had one amalgam filling of class I (9.76%). One amalgam filling of class II had six children (7.32%) and one child only had three amalgam fillings of class II (3.66%).

Since the group of patients with moderate mental retardation included 44 children where 28 of them had a diagnosis of Down syndrome, a separate cross-sectional study of their oral health status was done (Table 4). In children with Down syndrome the DMFT index was 12.47 (in males 10.99 and 15.57 in females). Both, boys (74.25) and girls (72.06) had most teeth affected by caries, restorations (boys 9.55, girls 6.42) and extractions (boys 2.37, girls 3.6).

DISCUSSION

Poor condition of oral health in children with impaired mental development is mainly the consequence of deteriorated general condition of these patients, and frequent neglect of this aspect of their health. As they are not able to independently take care of their oral hygiene it is eventually reflected on the overall of their oral health. The problem of maintaining oral hygiene is the consequence of reduced and sometimes complete absence of muscle

Table 1. DMFT index in respondents from the institution "Zaštiti me" in Banjaluka**Tabela 1.** Vrednosti indeksa KEP kod šticećenika centra „Zaštiti me“ u Banjaluci

Group Grupa	Diagnosis Dijagnoza	N	DMFT index Indeks KEP	Caries teeth Karijesni zubi			Extracted teeth Ekstrahovani zubi	Filled teeth Plombirani zubi
				Total Ukupno	Caries Karijes	Radix Koren		
I	Combined disorders of speech development and hearing Kombinovane smetnje razvoja govora i sluha	6	13.84	10.5	9.67	0.83	2.17	1.17
II	Neurological disorders without mental retardation Neurološki poremećaji bez mentalne retardacije	12	9.92	8.18	6.77	1.41	0.78	0.96
III	Mild mental retardation Blaga mentalna retardacija	20	7.20	5.40	4.35	1.05	0.80	1.00
IV	Moderate mental retardation Umerena mentalna retardacija	44	10.35	9.15	7.43	1.72	0.34	0.86
Total Ukupno		82	9.77	8.19	6.75	1.45	0.65	0.93

N – number of participants

N – broj ispitanika

Table 2. Distribution of composite fillings in examined children**Tabela 2.** Raspodela kompozitnih ispuna kod pregledane dece

Number of composite fillings Broj kompozitnih ispuna	Class Klasa										Total number of composite fillings Zbir kompozitnih ispuna	
	I		II		III		IV		V		N	%
	N	%	N	%	N	%	N	%	N	%		
0	65	79.27	77	93.90	78	95.12	82	100.00	82	100.00	62	75.61
1	11	13.41	3	3.66	2	2.44					11	13.41
2	2	2.44	2	2.44	1	1.21					4	4.88
3	2	2.43									1	1.21
4	2	2.43			1	1.21					2	2.44
5											1	1.21
9											1	1.21

N – number of participants

N – broj ispitanika

Table 3. Distribution of amalgam fillings in examined children**Tabela 3.** Raspodela amalgamskih ispuna kod pregledane dece

Number of amalgam fillings Broj amalgamskih ispuna	Class Klasa						Total number of amalgam fillings Zbir amalgamskih ispuna	
	A1		A2		A6		N	%
	N	%	N	%	N	%		
0	68	82.92	74	90.24	82	100.00	64	78.05
1	8	9.76	6	7.32			10	12.19
2	3	3.66	1	1.21			3	3.66
3	2	2.44	1	1.21			3	3.66
4	1	1.21					1	1.21
6							1	1.21

N – number of participants

N – broj ispitanika

Table 4. DMFT index in respondents with Dawn syndrome**Tabela 4.** Vrednosti indeksa KEP kod ispitanika sa Daunovim sindromom

Gender Pol	N	DMFT index Indeks KEP	Caries teeth Karijesni zubi			Extracted teeth Ekstrahovani zubi	Filled teeth Plombirani zubi
			Total Ukupno	Caries Karijes	Radix Koren		
Male Muški	19	10.99	9.68	8.16	1.52	0.26	1.05
Female Ženski	9	15.57	14.01	11.22	2.78	0.56	1.00
Total Ukupno	28	12.47	11.07	9.14	1.93	0.36	1.04

N – number of participants

N – broj ispitanika

movement coordination or failure to follow advice about preventive measures. Proper oral hygiene is certainly the most important factor in the prevention of oral diseases, but also an important prerequisite in preventing rapid progress of already deteriorated oral health.

Results of this study showed that residents of the institution "Zaštiti me" in Banja Luka had high DMFT index (9.77) which clearly indicated poor condition of their oral health. This result was expected given that majority of children in the institution is not able to independently maintain oral hygiene due to potential motor, sensor and intellectual disability. These patients are more prone to tooth decay and periodontal diseases. On the other hand, this group of patients is not able to fully understand the need and take responsibility for maintaining oral hygiene. Therefore, it is necessary to educate parents or guardians about the importance and significance of this aspect of their health [6, 7]. Poor health conditions and poor oral hygiene are associated with low socio-economic status in most families of children with special needs.

According to the results of many studies, a major influence on the increased incidence of dental caries in this population has an improper diet [8, 9, 10]. Long stay at home followed by eating snacks and drinking sweetened beverages increases significantly the incidence of tooth decay [11].

Children with special needs require unique social and health care, which is due to specific and limited possibilities more expensive than regular dental care. The role of dentist in prevention and treatment is extremely important having in mind limited cooperation of these children. Often, both approach and treatment of these patients must be modified [8].

The current study showed that the total DMFT index was 9.77. High mean of DMFT indicated poor status of oral health in these patients, not caused only by their inability to maintain oral hygiene but also having inadequate dental care. The first dental visit of these children usually occurs much later than in healthy children. Oral status of these children showed higher susceptibility to caries, dental, oral and orthodontic anomalies, poor oral hygiene, and tendency to gingival and periodontal diseases. Numerous studies in the world have confirmed these findings and found poor state of mouth and teeth in children with mental disorders with large number of extracted teeth and small number of restorations. The DMFT values in these patients in Australia were 14.6, Taiwan 14.9, the United States 13.6 and in Western European countries 15.85. This strongly suggests that beside the importance of health care system, the development of the country or region may play an important role in maintaining oral health [12, 13, 14].

Research carried out in Bosnia and Herzegovina in 2009 included 70 female residents from the institution for mentally handicapped people in Visegrad age 30 to 55 years. Poor oral health was found in 90% patients whereas in 4.3% only, the status was satisfactory; however in 5.7% of patients examination was not possible [11]. In US study conducted from April 2009 through 2010 which included 4,732 adult patients with special needs the total DMFT

index was 13.9 and increased with age [15]. There was no difference between genders in the value of DMFT index. The DMFT index in respondents age 20-39 years was 9.1. If these results are compared with the DMFT index of 10.8 for 2006 in healthy adolescents in Foca- eastern municipality in Bosnia, it can be concluded that the development of the country is definitely one of the main factors that affect the state of oral health. It is important to note that this study in adolescents was conducted soon after the end of war in Bosnia and Herzegovina [16].

Of 82 children with special needs who participated in this study 28 were diagnosed with Down syndrome. According to the data from their records, they were missing front teeth; most of them had destructive periodontal disease and bruxism. Together with poor oral hygiene, this certainly contributed to the loss of a large number of teeth. The DMFT index in these children was 12.47. The study of Rodriguez Vasquez et al. [17] showed the mean DMFT of 3.92 in patients with Down syndrome which is not in accordance with the results of the current or any earlier study. These results could be explained by the fact that patients in their study were hospitalized, and their diet was under constant supervision where sugar intake was under strict control.

Only one of the respondents from the current study had fixed appliance which is consistent with findings of Lustig et al. [18], who reported three patients with fixed appliances out of 114 respondents. An explanation could be found in the fact that such complex dental intervention requires more visits, and it is possible only in a special institution with increased attention and engagement of therapists or family members.

It is worrisome that 77 (93.9%) of the total number of examined children did not have any composite restoration class II and 65 (79.27%) children did not have class I. Also, very small number of children had amalgam fillings, while restorations of glass-ionomer cements were not found in any child.

CONCLUSION

High percentage of carious teeth, small percentage of restorations and extracted teeth, as well as inadequate oral hygiene are main characteristics of dental status in children with special needs in the institution "Zaštiti me" in Banjaluka. These findings suggest the need to raise dental care of these children at higher level, organize workshops for parents and guardians as well as medical staff in institutions for children with disabilities. Courses could assist in training parents or guardians to maintain the proper oral hygiene, and stress the importance of oral health for better quality of life of these children.

NOTE

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Stanje zuba dece s posebnim potrebama u Banjaluci

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KRATAK SADRŽAJ

Uvod Stanje zuba osoba s posebnim potrebama uglavnom nije zadovoljavajuće. Deca s posebnim potrebama imaju poteškoća u održavanju higijene usta i zuba, zahtevaju posebne uslove pri zbrinjavanju u stomatološkim ordinacijama i neretko, zbog prethodnih loših iskustava, pokazuju emotivnu preosetljivost. Značajnu ulogu u nastanku oboljenja usta i zuba kod ovih osoba imaju nedovoljna znanja o uzrocima ovih oboljenja, loše navike u ishrani, nizak nivo oralne higijene i nedovoljan broj poseta stomatologu. Cilj ovog rada bio je da se utvrde stanje zuba dece s posebnim potrebama koja borave u ustanovi „Zaštiti me“ u Banjaluci i prevalencija karijesa kod ovih osoba.

Materijal i metode rada: Istraživanjem su obuhvaćena 82 deteta s mešovitim i stalnom denticijom (uzrasta 5–15 godina), od čega 53 dečaka i 29 devojčica. Ispitanici su svrstani u četiri grupe prema dijagnozi. Prvu grupu činila su deca s kombinovanim smetnjama razvoja govora i sluha, drugu deca s neurološkim poremećajima bez mentalne retardacije, treću deca s blagom mentalnom retardacijom, a četvrtu grupu deca s umerenom mentalnom retardacijom. Stomatološkim pregledom su utvrđeni: broj zuba, postojanje karijesa, postojanje ispuna, broj izvađenih zuba, postojanje zaostalih korenova i postojanje i broj fiksnih nadoknada. Ovi podaci upisani su u stomatološke kartone svakog pacijenta.

Rezultati: Srednja vrednost indeksa KEP ukupno pregledanih zuba bila je 9,77. Detaljnim analizama je utvrđeno da je bilo najviše zuba zahvaćenih karijesom (83,83%), zatim plombiranih zuba (9,52%), a najmanje ekstrahovanih zuba (6,65%). Najveći procenat dece (79,27%) nije imao nijedan kompozitni ispun prve klase, odnosno jedan amalgamski ispun prve klase (82,92%). Samo je jedno dete imalo fiksnu nadoknadu.

Zaključak: Stanje zuba dece s posebnim potrebama u Banjaluci ukazuje na visok procenat karijesnih zuba i mali procenat plombiranih i ekstrahovanih zuba, kao i na neodgovarajuću oralnu higijenu.

Ključner eči: karijes; deca; stanje zuba; izvađeni zubi; ispuni; posebne potrebe

UVOD

Oralno zdravlje je važan deo opšteg zdravlja pojedinca i značajan pokazatelj njegovog kvaliteta života. Bolesti usnog aparata, kao što su karijes, bolesti parodonticijuma, gubitak zuba i promene na oralnoj sluznici, ozbiljan su zdravstveni problem s visokom učestalošću u mnogim zemljama sveta. Oboljenja usta i zuba vidno umanjuju kvalitet života ljudi, a troškovi njihovog lečenja znatno opterećuju zdravstveni fond [1]. Svetska stomatološka federacija (*World Dental Federation – FDI*) i Svetska zdravstvena organizacija (SZO) postavile su standarde zdravlja usne šupljine i pridruženih tkiva koji omogućavaju ishranu, govor i socijalizaciju bez aktivne bolesti, bez poremećaja zdravstvenog komfora ili onesposobljenosti, a doprinose opštem dobrom zdravlju i osećanju [2]. SZO je 2000. godine donela strategiju za prevenciju oralnih bolesti i promociju oralnog zdravlja, te definisala pokazatelje stanja oralnog zdravlja kao što su: broj poseta stomatologu, broj pranja zuba, potpuni gubitak zuba, stanje fluorizacije, lečeni karijes, nelečeni karijes, erozije zuba i oralni i karcinom ždrela. U svetu 60–90% dece školskog uzrasta ima karijes, te su SZO i FDI 2005. godine predstavile Program prevencije i promocije oralnog zdravlja kroz škole [3]. Bosna i Hercegovina je zemlja s visokom prevalencijom karijesa među decom školskog uzrasta (94–96%), a prema izveštaju SZO, 78% stanovništva starijeg od 65 godina nema zube [2].

Prema definiciji SZO, dete s posebnim potrebama je ono dete koje u određenom vremenskom periodu nije u stanju fizički ili

mentalno da učestvuje u normalnim aktivnostima svoje uzrasne grupe. Mentalno ometene osobe, koje su najčešće zbog poremećenog rasuđivanja i razumevanja i nesamostalnosti smeštene u specijalizovane ustanove, zahtevaju posebnu pažnju i brigu u svakom smislu, a naročito u pogledu očuvanja zdravlja usta i zuba. Oralno zdravlje ima veliki uticaj na svakodnevno funkcionisanje i kvalitet života ovih osoba s obzirom na to da je ono obično dodatno narušeno usled oboljenja drugih sistema i organa. Deca s posebnim potrebama imaju poteškoća u održavanju higijene usta i zuba, zahtevaju posebne uslove u stomatološkim ordinacijama i neretko, zbog prethodnih loših iskustava, pokazuju emotivnu preosetljivost u stomatološkoj ordinaciji. Značajnu ulogu u nastanku oboljenja usta i zuba imaju nedovoljna znanja o uzrocima nastanka ovih oboljenja, loše navike u ishrani, nizak nivo oralne higijene i nedovoljan broj poseta stomatologu [4]. Jedan od mogućih načina sanacije loših zuba osoba ometenih u mentalnom razvoju jeste i vršenje stomatoloških intervencija u opštoj anesteziji. Time se ovim osobama i terapeutu olakšava postupak, ali i obezbeđuje pravilna, detaljna i potpuna stomatološka zaštita.

Podizanje nivoa oralnog zdravlja kod ovih osoba može se uspešno postići pravilnom primenom postupaka i mera prevencije i neprestanim praćenjem stanja njihovih usta i zuba. Činjenica je da deca s posebnim potrebama imaju nizak nivo oralne higijene, češća oboljenja parodonticijuma, veću prevalenciju nesaniiranog karijesa i više ekstrahovanih a manje plombiranih zuba u odnosu na zdravu decu.

Cilj rada bio je da se utvrde stanje zuba dece s posebnim potrebama u ustanovi „Zaštiti me“ u Banjaluci i prevalencija karijesa kod ovih osoba.

MATERIJAL I METODE RADA

Istraživanje je urađeno kao studija preseka od januara do aprila 2010. godine među šticienicima ustanove „Zaštiti me“ u Banjaluci. Studijom su obuhvaćena 82 deteta s mešovitom i stalnom denticijom (uzrasta 5–15 godina), i to 53 dečaka i 29 devojčica. Ispitanici su svrstani u četiri grupe prema dijagnozi. Prvu grupu činilo je šestoro dece s kombinovanim smetnjama razvoja govora i sluha, drugu grupu 12 dece s neurološkim poremećajima bez mentalne retardacije, treću grupu 20 dece sa blagom mentalnom retardacijom, dok su četvrtu grupu činila 44 deteta s umerenom mentalnom retardacijom.

Svim roditeljima ili starateljima su predstavljeni svrha istraživanja i podaci o istraživanju, a svaki roditelj, odnosno staratelj je svojim potpisom potvrdio dobrovoljni pristanak za učešće deteta u istraživanju.

Stomatološki pregledi su obavljani u skladu s uputstvom SZO. Analiza stanja zuba je izvršena pomoću stomatološkog ogledalca, stomatološke prave i aproksimalne sonde pri dnevnoj svetlosti [5]. Pregledom su utvrđeni sledeći podaci: karijes (K), zdrav zub (Z), zub u nicanju (N), ekstrahovan zub (E), anodoncija (X), fraktura (F), *radix relicta* (R), amalgamski ispun (A), kompozitni ispun (C), glasjonomer-ispun (G) i keramička krunica (KR). Podaci su upisani u stomatološke kartone pacijenata.

REZULTATI

Dobijeni rezultati prikazani su u tabelama 1–4. Srednja vrednost indeksa KEP ukupno pregledanih zuba bila je 9,77. Prema analizama pojedinačnih komponenta indeksa KEP, najviše je bilo zuba zahvaćenih karijesom (83,83%), zatim plombiranih zuba (9,52%), a najmanje ekstrahovanih zuba (6,65%).

U prvoj grupi dece indeks KEP je bio 13,84. Najviše je bilo zuba zahvaćenih karijesom (69,87%), zatim ekstrahovanih zuba (15,68%), a najmanje plombiranih (8,45%). U drugoj grupi dece indeks KEP je bio 9,92. I ovde je bilo najviše zuba zahvaćenih karijesom (68,25%), zatim plombiranih (9,68%), a najmanje ekstrahovanih (7,86%). U trećoj grupi dece indeks KEP je bio 7,20. Najviše je bilo zuba zahvaćenih karijesom (60,42%), potom plombiranih (11,94%), a najmanje ekstrahovanih zuba (4,72%). U četvrtoj grupi dece indeks KEP je bio 10,35. Takođe, najviše zuba bilo je s karijesom (7,29%), zatim plombiranih (8,31%), a najmanje izvađenih (3,29%) (Tabela 1).

U tabeli 2 prikazana je raspodela kompozitnih ispuna kod pregledane dece. Tako 79,27% dece nije imalo nijedan kompozitni ispun prve klase, dok 93,90% dece nije imalo nijedan kompozitni ispun druge klase. Najviše ispitanika – 13,41% – imalo je jedan kompozitni ispun prve klase; 2,44% dece imalo je dva kompozitna ispuna, 2,43% tri, a 2,43% četiri. Drugu klasu kompozitnih ispuna imalo je 3,66% dece, a 2,44% po dve druge klase. Nijedno dete od 82 pregledana deteta nije imalo kompozitni ispun četvrte i pete klase.

U tabeli 3 data je raspodela amalgamskih ispuna kod pregledane dece. Takođe, većina dece nije imala nijedan amalgamski

ispun prve klase (82,92%) i nijedan amalgamski ispun druge klase (90,24%). Samo jedno dete imalo je četiri amalgamska ispuna prve klase (1,21%), dok je osmoro njih imalo po jedan amalgamski ispun prve klase (9,76%). Po jedan amalgamski ispun druge klase ustanovljen je kod šestoro dece (7,32%), a samo jedno dete imalo je tri amalgamska ispuna druge klase (3,66%).

S obzirom na to da je u grupi ispitanika s umerenom mentalnom retardacijom 28 imalo dijagnozu Daunovog sindroma, posebno je napravljen presek stanja njihovog oralnog zdravlja (Tabela 4). Kod ove dece indeks KEP je bio 12,47 (kod dečaka 10,99, a kod devojčica 15,57). I kod dečaka (74,25) i kod devojčica (72,06) najviše je bilo zuba zahvaćenih karijesom, potom plombiranih zuba (dečaci 9,55; devojčice 6,42), a najmanje izvađenih (dečaci 2,37; devojčice 3,6).

DISKUSIJA

Loše stanje usta i zuba dece ometene u mentalnom razvoju uglavnom je posledica teškog opšteg stanja ovih bolesnika, ali i čestog zanemarivanja ovog aspekta njihovog zdravlja. Ove osobe nisu sposobne da samostalno brinu o adekvatnom održavanju higijene usta i zuba, što se vremenom odražava i na opšte oralno zdravlje. Problem održavanja oralne higijene posledica je smanjenog, a nekada i potpunog izostanka mišićne koordinacije pokreta, odnosno nemogućnosti praćenja saveta u vezi s merama prevencije. Pravilno održavanje oralne higijene je sigurno najvažniji faktor u prevenciji nastanka oboljenja usta i zuba, ali i značajan preduslov u sprečavanju brzog napredovanja već narušenog oralnog zdravlja.

Rezultati ove studije su pokazali da šticienici ustanove „Zaštiti me“ u Banjaluci imaju visoke vrednosti indeksa KEP (9,77), što jasno ukazuje na loše stanje njihovih usta i zuba. Ovakav rezultat je bio očekivan s obzirom na to da većina dece u ovoj ustanovi ne može da samostalno održava oralnu higijenu zbog potencijalnog motornog, senzornog i intelektualnog invaliditeta. Takvi bolesnici su, zbog nemogućnosti održavanja adekvatne higijene usta i zuba, skloniji karijesu i oboljenjima desni. S druge strane, oni ne mogu da potpuno razumeju potrebu za održavanjem oralne higijene i preuzmu odgovornost. Stoga je potrebno edukovati roditelje ili staratelje i ostale odrasle osobe koje su u okruženju deteta s posebnim potrebama o važnosti i značaju ovog aspekta njihovog zdravlja [6, 7]. Loši zdravstveni uslovi i loše održavanje oralne higijene povezani su i sa niskim socioekonomskim statusom većine porodica dece s posebnim potrebama.

Prema rezultatima brojnih studija, veliki uticaj na povećanu incidenciju karijesa kod ovih osoba ima i nepravilna ishrana [8, 9, 10]. Dugotrajni boravak u kući praćen konzumiranjem grickalica i slatkih napitaka značajno utiče na povećanu incidenciju karijesa [11].

Deca sa smetnjama u razvoju zahtevaju posebnu socijalnu i zdravstvenu zaštitu koja je, zbog specifičnosti pristupa i ograničenih mogućnosti rada, znatno skuplja od uobičajene stomatološke zaštite. Uloga stomatologa u preventivnom i kurativnom delovanju izuzetno je važna, pri čemu se mora uzeti u obzir ograničenost ove dece za saradnju. Na osnovu svega toga često se moraju prilagođavati i pristup i lečenje u stomatološkoj ordinaciji [8].

Naše istraživanje je pokazalo da je ukupan indeks KEP ispitivane dece bio 9,77. Visoka srednja vrednost ovog indeksa ukazuje na loše stanje oralnog zdravlja ovih bolesnika koje nije uzrokovano samo njihovom nemogućnošću održavanja oralne higijene, već i neodgovarajućom i nedovoljnom stomatološkom zaštitom. Oni u prvu posetu stomatologu najčešće odlaze mnogo kasnije nego zdrava deca. Stanje usta i zuba ove dece pokazuje veću sklonost ka karijesu, dentalnim, oralnim i ortodontskim poremećajima, te slabu oralnu higijenu, sklonost ka upalama gingive i parodonticijuma. Brojna istraživanja u svetu takođe potvrđuju ove nalaze i ukazuju na loše stanje usta i zuba dece ometene u mentalnom razvoju, na veliki broj ekstrahovanih zuba i mali broj ispuna. Vrednost indeksa KEP kod ovih bolesnika u Australiji bila je 14,6, u Tajvanu 14,9, u SAD 13,6, a u zapadnoevropskim zemljama 15,85. Ovo nedvosmisleno pokazuje da, osim sistema zdravstvene zaštite, i razvoj zemlje, odnosno regiona može biti jedan od značajnih faktora stanja oralnog zdravlja [12, 13, 14].

Istraživanja obavljena u Bosni i Hercegovini 2009. godine obuhvatila su 70 žena starosti od 30 do 55 godina smeštenih u domu za mentalno hendikepirane osobe u Višegradu. Veoma loše stanje oralnog zdravlja utvrđeno je kod 90% bolesnika; kod 4,3% stanje je bilo zadovoljavajuće, a kod 5,7% nije bilo moguće izvršiti pregled [11]. U SAD je između aprila 2009. i kraja 2010. godine izvedena studija koja je obuhvatila 4.732 odrasla ispitanika s posebnim potrebama [15]. Utvrđeno je da je ukupan indeks KEP bio 13,9, te da se njegova vrednost povećavala sa godinama starosti. Nije bilo razlike u vrednostima indeksa KEP među polovima. Kod ispitanika starosti između 20 i 39 godina indeks KEP je bio 9,1. Kada se ovakvi nalazi uporede s vrednostima indeksa KEP od 10,8 iz 2006. godine na području istočne Bosne (opština Foča) kod zdravih adolescenata, može se zaključiti da je i razvoj zemlje jedan od glavnih faktora koji mogu da utiču na stanje oralnog zdravlja stanovništva. Važno je istaći da je ovo istraživanje kod adolescenata urađeno neposredno nakon ratnih dejstava u Bosni i Hercegovini [16].

Od 82 deteta s posebnim potrebama koja su obuhvaćena našom studijom, 28 dece je bolovalo od Daunovog sindroma. Prema podacima iz njihovih kartona, primećeno je da im nedostaju prednji zubi i da većina ima destruktivnu parodontopatiju

i bruksizam. Ovo je uz lošu higijenu usta u zuba svakako doprinelo gubitku većeg broja zuba. Vrednost indeksa KEP ove dece bila je 12,47. Studija Rodrigez Vaskeza (*Rodriguez Vasquez*) i saradnika [17] ukazala je na srednju vrednost indeksa KEP od 3,92 kod ispitanika sa Daunovim sindromom, što nije u skladu s rezultatima našeg istraživanja, niti s nalazima mnogih drugih studija. Ovo se objašnjava činjenicom da su ovi ispitanici bili hospitalizovani, te da je njihova ishrana bila pod stalnom kontrolom u pogledu unošenja šećera hranom.

Samo jedan ispitanik naše studije imao je fiksnu nadoknadu, što je u skladu s nalazima Lustiga (*Lustig*) i saradnika [18], koji navode da su samo tri bolesnika od 114 imala fiksne nadoknade. Objašnjenje ovakvog nalaza bi moglo biti u činjenici da ovako složena stomatološka intervencija zahteva više poseta stomatologu, što je moguće samo u posebnoj ustanovi i uz povećanu brigu i angažovanje terapeuta, odnosno članova porodice.

Zabrinjava podatak da 77 dece (93,9%) u našem istraživanju nema nijedan kompozitni ispun druge klase, kao i da 65 dece (79,27%) nema nijedan kompozitni ispun prve klase. Takođe, veoma mali broj dece ima amalgamske ispune, dok ispuni od glasjonomer-cemenata nisu nađeni ni kod jednog deteta.

ZAKLJUČAK

Visok procenat zuba zahvaćenih karijesom, mali procenat plombiranih i ekstrahovanih zuba, kao i neodgovarajuća oralna higijena, opisuju stanje usta i zuba dece s posebnim potrebama koja borave u ustanovi „Zaštiti me“ u Banjaluci. Ovi nalazi ukazuju na potrebu podizanja stomatološke zaštite ove dece na viši nivo, na potrebu organizovanja edukativnih radionica za roditelje i staratelje ove dece, kao i za zaposlene u ustanovama za decu ometenu u razvoju. Kursovima bi se moglo pomoći u obuci roditelja, odnosno staratelja, u pravilnom održavanju oralne higijene i ukazati na značaj oralnog zdravlja u životu ove dece.

NAPOMENA

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