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Oral health behavior and oral higiene habits of elderly population in Podgorica, Montenegro

Zorica Popović, Mirjana Đuričković

University of Montenegro, Faculty of Medicine in Podgorica, Department of Dentistry, Podgorica, Montenegro

SUMMARY

Introduction An increase in the number of elderly users of dental services is expected in bubbling. The aim of the study was to examine the oral health behaviour and oral hygiene habits of the elderly population in Podgorica, Montenegro.
Materials and methods The study used a 21 closed-end question questionnaire, prepared in accordance with the recommendations of the World Health Organization. Using standard statistical methods, χ^2 test was performed ($p = 0.05$).
Results The average age of subjects was 71 ± 6.35. 40.0% of population was edentulous; 81.90% had some kind of dentures; last visit to the dentist was less than a year ago in 25.7% and more than five years ago in 27.6%. Higher educated population had regular dental check-ups ($\chi^2 = 47.178$; $p < 0.001$). The reason for dental visit was most commonly pain or other mouth discomfort, teeth or dentures in 59.0%. 33.3% of examined population reported fear of dental interventions as the reason for the lack of dental care. 16.2% reported high cost of dental services as reason for avoiding dentist. 41.0% of population used tobacco products and 21.0% alcoholic beverages. Les than half of population (40.0%) had regular dentist. 41% of population brushed teeth and dentures three times a day, oral hygiene aids use was noted in 35.6% while 50% used denture-cleaning tablets.
Conclusion Oral health behaviour and oral hygiene habits of the elderly in Podgorica are not satisfactory. Since elderly are mostly in need of prosthetic treatment it is important to improve dental-prosthetic care in the state health care system.
Keywords: elderly; oral health; oral health behaviour; hygiene habits

INTRODUCTION

Demographic indicators point to the fact that Europe is aging rapidly. By 2060, the average European Union (EU) citizen will be 47.2 years old and there will be around 30% of 65 years old people in the EU (16% in 2010) [1]. Data from the Statistical Office of Montenegro (Monstat) also indicates a decades-long trend of population aging [2]. The percentage of over 65 years old increased from 10% (1953) to 18.3% (2011). Today, one fifth of Montenegro's population is over 65 years old. In the future, we will have significantly higher number of elderly users of dental services, which directly affects health costs and becomes a key public health problem, even in more developed countries [3].

About 30% of people in the world between the age of 65 and 74 no longer have their natural teeth [4]. Jandial al. [5] reported that with increasing age, there are more partially edentulous people followed by completely edentulous as early as 45 years of age. They also point out the effect of missing teeth on mouth, general health, and quality of life and emphasize the importance of replacing missing teeth in timely manner.

Among the basic guidelines of the World Health Organization (WHO) for improving oral health [6], points three and four discuss: the need for countries to develop oral health systems in accordance with the needs of users and their financial capacity; on the need to integrate oral health into national health programs with a strong need to address health literacy of the population. The key to success lies in prevention and creation of an individual who is consciously aware. Preventive programs do not always deliver expected results due to inadequate level of health literacy of the population [7]. Health literacy is the ability to read, understand and properly use information, instructions and guidelines related to one's health [8]. Its definition refers to the three steps in its development (functional, interactive and critical) [9] and its level is not necessarily proportional to the level of formal education, as an individual may have a high level of formal education but a lack of awareness of the importance of his or her health [10].

Oral health literacy includes: knowledge and implementation of oral hygiene measures; identifying risk factors that affect oral health; awareness of the link between general and oral health and their impact on the quality of life. Also, building and maintaining various traditional and contemporary communication models of collaboration between patients and dentists for the purpose of raising oral health literacy is important [11, 12]. The results of numerous studies indicate the importance of responsible behaviour of an individual towards their own oral health [13, 14, 15]. Oral health status (representation of edentulousness), oral hygiene habits and oral health behaviours have been interesting topics for research in the region [16, 17], Europe [18] and other continents [19–29].

The elderly mostly wear dentures. Kandelman et al. [23] emphasize that care of dentures and soft tissue un-

Address for correspondence: Zorica POPOVIĆ, University of Montenegro, Faculty of Medicine, Department of Dentistry, Kruševac bb, 81000 Podgorica, Montenegro; *zoricajankovicpopovic@gmail.com*

der dentures is important for both oral and general health. Improper hygiene of dentures may cause or contribute to the occurrence of pathological changes in oral mucosa, poor nutrition, diseases of the airways, heart and stomach. In older patients hygienic dentures should be given priority over aesthetics, according to authors who have investigated oral health of elderly [30–34].

The aim of the study is to examine oral health behaviour and oral hygiene habits of the elderly population in Podgorica, Montenegro.

MATERIALS AND METHODS

Ethics Committee of the Medical School of the University of Montenegro in Podgorica approved the research and research method was accepted. The research was performed according to the method of analytical cross-sectional study, from October 2018 to April 2019, at the Faculty of Medicine in Podgorica, Dental Program. A doctor of dentistry, a specialist in dental prosthetics who is employed by the Faculty, performed the study. The study included 105 respondents between the ages of 65 and 96 with an average age of 71 (standard deviation 6.35).

The criteria for respondents were as follows:

1. Persons, ages 65 and older, who visited clinic on certain days of the week (Tuesdays and Thursdays), from October 2018 to April 2019.
2. Persons who voluntarily agreed to participate in the research after explaining the purpose of the research, the method of data collection and the anonymity of participation. They all signed informed consent.

Research method

The research method included a questionnaire consisting of 21 closed-ended questions (Table 1). The questionnaire was composed for the purpose of this research by the World Health Organization guidelines [12]. The questions were divided into the three sections:

The first part consisted of 13 questions related to oral health behaviour. The second part had 6 questions and was related to oral hygiene habits. The third part consisted of two questions related to the reasons that motivated patients to apply for oral health services at the Faculty and satisfaction with the service provided.

For statistical analysis methods of descriptive and inferential statistics were used (arithmetic mean and standard deviation). Data were processed with the statistical program IBM STATISTICS 20. The Pearson $\chi 2$ test was used. The significance level was set at 0.05.

Table 1. Questions included in the questionnaire
Tabela 1. Pitanja koje je sadržao upitnik

# of question Broj pitanja	Question Pitanje
P1	Do you have selected doctor? Da li imate izabranog lekara?
P2	How often do you perform basic laboratory tests (blood and urine tests)? Koliko često radite laboratorijske testove (krvnu sliku i urin)?
P3	Do you have selected dentist? Da li imate izabranog stomatologa?
P4	Where have you been treating your teeth so far? Gde ste dosad išli kod stomatologa?
P5	How do you assess your mouth and teeth health? Kako procenjujete zdravlje svojih usta i zuba?
P6	How long ago was your last visit to dentist? Koliko je vremena proteklo od vaše poslednje posete stomatologu?
P7	What was the reason for your last visit to the dentist? Koji je bio razlog poslednje posete stomatologu?
P8	What made you lose your natural teeth? Iz kojih razloga ste izgubili svoje prirodne zube?
P9	What is the reason for your irregular visit to the dental examinations? Koji je razlog vašeg neregularnog odlaska stomatologu?
P10	How much in this time you have remaining natural teeth? Koliko imate preostalih svojih prirodnih zuba sada?
P11	Do you use tobacco products? Da li pušite?
P12	Are you a consumer of alcoholic beverages? Da li pijete alkoholna pića?
P13	Did you receive advice from your dentist about the need for regular check-ups at least once a year when receiving your dentures? Da li ste posavetovani da je potrebno da imate regularne preglede kada ste dobili svoje proteze?
P14	How many times during the day do you brush your teeth / dentures? Koliko puta dnevno perete zube/proteze?
P15	What means do you use to clean your teeth (for people who have teeth)? Šta sve koristite za pranje zuba (za ljude koji imaju svoje zube)?
P16	What means do you use to wash your denture (for people who have dentures)? Šta sve koristite za pranje proteza (za ljude koji imaju proteze)?
P17	Do you use tablets for cleaning dentures? Da li koristite tablete za pranje proteza?
P18	How much do you wear a denture in 24 hours? Koliko dugo nosite proteze u toku 24 časa?
P19	Where do you keep your denture when it's not in your mouth? Gde čuvate proteze kada vam nisu u ustima?
P20	Why did you choose the School of Medicine to provide dental services? Zašto ste izabrali fakultet za stomatološke usluge?
P21	Are you satisfied with the provided dental services? Da li ste zadovoljni stomatološkim uslugama?

RESULTS

Sample structure

By gender, the structure of the sample was: 53 (50.5%) females and 52 (49.5%) males. Compared to age groups: 78 (74.3%) subjects were 65-74 years and 27 (25.7%) subjects 75 years old (71.0 ± 6.35; min 65; max 96). By level of education: the majority of respondents had secondary level of education (42 (41.0%)), higher education had 29 respondents (27.6%). There were 12 (11.4%) college graduates, 18 with elementary school (19.0%) and one with no education (1.0%). Forty-two people (40.0%) were completely edentulous. 43 (41.0%) respondents had less

than 20 teeth. More than 20 teeth had 20 (19.0%) respondents. Most of them had some kind of dentures (mobile prosthetic appliances) - 86 (81.90%).

Oral health behaviour

The results of the study of oral health behaviour of respondents are shown in Table 2.

102 (97.1%) of respondents had selected general physician (GP). Once a year, 49 (46.7%) of respondents performed basic laboratory tests. 42 (40.0%) of tested respondents had selected dentist. In response to question number 4, 43 (41.0%) stated that they had so far treated their teeth exclusively in state dental offices. 7 (6.7%) respondents were treated in private dental offices only while 55 (52.4%) respondents were referred for dental services to both state and private dental offices.

For the reason of loosing natural teeth, 62 (59.0%) reported decay and 41 (39.0%) periodontal disease. In oral health self-assessment, 46 (43.8%) of respondents assessed their oral health as poor. When asked about the time elapsed since the last visit to the dentist, 27 (25.7%)

Table 2. Oral health behaviour of the respondents
Tabela 2. Oralne navike ispitnika

#	Answers Odgovori	%	Years Godine		χ^2 p	Gender Pol		χ^2 p	Education Obrazovanje				χ^2 p
			65–74	>75		F Ž	M M		ES OO	HS SO	CE VS	UE UO	
			n	n		n	n		n	n	n	n	
P1	Yes Da	97.1	75	27		53	49		18	42	12	29	
	No Ne	2.9	3	0		0	3		2	1	0	0	
P2	Once a year Jednom godišnje	46.7	35	14		26	23		5	17	6	21	13.304 0.010*
	When I have problem Kada imam neki problem	53.3	43	13		27	29		15	26	6	8	
P3	Yes Da	40.0	33	9		16	26	4.292 0.038*	1	17	7	17	16.749 0.002*
	No Ne	60.0	45	18		37	26		19	26	5	12	
P4	In state clinics U državnim klinikama	41.0	31	12		19	24		6	16	7	13	
	In private clinics U privatnim klinikama	6.7	7	0		3	4		2	2	0	3	
	In both I jednim i drugim klinikama	52.4	40	15		31	24		12	25	5	13	
P5	Bad Loše	43.8	34	12		23	23		10	21	4	10	
	Good Dobro	56.2	44	15		30	29		10	22	8	19	
P6	Less than 1 year Manje od jedne godine	25.7	24	3		17	10		1	9	3	14	47.178 0.001*
	From 1 to 2 years Od jedne do dve godine	21.9	17	5		8	14		2	4	5	11	
	From 2 to 5 years Od dve do pet godina	24.8	19	7		9	17		4	16	3	3	
	5 years and over pet godina i više	27.6	17	12		18	11		13	13	1	1	
P7	Pain or problem Bol ili neprijatnost	59.0	44	18		37	25		17	29	4	11	22.660 0.031*
	Regular control Regularna kontrola	9.5	8	2		4	6		1	1	2	6	
	Treatment Tretman	20.0	17	4		8	13		2	8	5	6	
	Consultation /advice Konsultacija/ savet	11.4	9	3		4	8		0	5	1	6	
P8	Decay Karijes	59.0	49	13		37	25		11	24	9	17	
	Periodontal disease Parodontopatija	39.0	27	14		15	26		7	19	3	12	
	Trauma Povreda	1.9	2	0		1	1		2	0	0	0	

#	Answers Odgovori	%	Years Godine		χ^2 p	Gender Pol		χ^2 p	Education Obrazovanje				χ^2 p
			65–74	>75		F Ž	M M		ES OO	HS SO	CE VS	UE UO	
			n	n		n	n		n	n	n	n	
P9	Fear Strah	33.3	29	6		24	11		5	15	3	12	
	High price Visoka cena	16.2	12	5		6	11		2	9	4	2	
	The absence of a dental office (poor organization) in the place where I live Nedostatak stomatološke ordinacije (loša organizacija) u mestu gde živim	12.4	6	7		5	8		3	3	1	6	
	Neglect oral health due to life problems Zanemarivanje zdravlja usta zbog drugih životnih problema	21.0	16	6		12	10		3	10	3	6	
	Neglecting oral health due to ignorance of its importance Zanemarivanje zdravlja usta zbog ignorisanja značaja zdravlja zuba	17.1	15	3		6	12		7	6	1	3	
P10	Edentulous Bezubi	40.0	27	15		28	14	7.342 0.025*	9	15	5	12	
	< 20 teeth < 20 zuba	41.0	35	8		17	26		10	20	4	9	
	> 20 teeth > 20 zuba	19.0	16	4		8	12		1	8	3	8	
P11	Yes Da	41.0	39	4		22	21		9	23	1	9	12.369 0.015*
	No Ne	59.0	39	23		31	31		11	20	11	20	
P12	Yes Da	21.0	18	4		3	19	15.110 <0.001	5	11	3	3	
	No Ne	79.0	60	23		50	33		15	32	9	26	
P13	Yes Da	43.8	32	7	2.866 0.090*	16	23	3.863 0.045*	3	15	5	16	10.737 0.030*
	No Ne	56.2	33	17		31	19		14	21	5	9	

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Ž – ženski pol, M – muški pol, OO – osnovno obrazovanje, SO – srednjoškolsko obrazovanje, VS – viša škola, UO – univerzitetsko obrazovanje, * – postoji statistička značajnost

reported last visit less than 1 year ago and 29 (27.6%) more than 5 years ago. As a reason for the last visit to the dentist, 62 (59.0%) of the respondents reported pain or problem related to the mouth, teeth or dental replacement, while only ten (9.5%) went for regular check-up. On the 13th question from the questionnaire, 39 (43.8%) recalled having received advice from physicians about the need for regular check-ups. When asked about the reasons for irregular dental visits, the following were answered: "Fear of dental intervention" - 35 (33.3%); "High cost of dental services" - 17 (16.2%); "Lack (or poor organization) of the dental service in the place where I live" - 13 (12.4%); "Neglect of tooth and mouth health due to other life problems" - 22 (21.0%); "Neglect of teeth and mouth health due to insufficient knowledge of their importance" - 18 (17.1%). 43 (41.0%) respondents reported tobacco use while 22 (21.0%) reported use of alcoholic beverages.

Oral-hygiene habits

Answers to questions related to oral health habits are shown in Table 3.

Three times a day, 41.0% of the subjects brushed their teeth / dentures. The number of subjects who had natural teeth remaining was 62 (59.05%). When asked what means they used to brush teeth: 64.5% used only toothbrush and toothpaste; 24.2% used dental floss in addition, 11.3% also used mouthwash. High percentage (68.6%) of respondents used toothbrush and toothpaste to clean their dentures. Alternative denture hygiene products (household soaps and dishwashing detergents, baking soda, lemon juice, bleach-sodium hypochlorite, rough brushes, etc.) were used by 31.4% of mobile denture wearers. Some respondents used denture-cleaning tablets. In regards to their denture wearing habits 40.7% said they wore dentures "both day and night", while 59.3% wore dentures only during the day. When dentures were not in the mouth 51.2% of the respondents hold them in a glass with water, while 48.8% kept them in a glass / box without water.

The reasons for visiting the Faculty of Medicine in Podgorica and satisfaction with the provided oral health services

65.7% of respondents reported "recommendation of a family member or a friend" was the reason to visit the Faculty of Medicine, dental division. The expertise of dentists working in the Dentistry Study Program was the

Table 3. Oral-hygiene habits of the respondents
Tabela 2. Navike ispitnika koje se tiču higijene zuba

#	Answers Odgovori	%	Years Godine		χ^2 p	Gender Pol		χ^2 p	Education Obrazovanje				χ^2 p
			65–74	>75		F Ž	M M		ES OO	HS SO	CE VS	UE UO	
			n	n		n	n		n	n	n	n	
P1	Three times Tri puta	41.0	32	11		29	14	9.140 0.010*	6	15	4	18	16.405 0.037*
	Two times Dva puta	23.8	15	10		8	17		3	11	6	4	
	One time Jednom	35.2	31	6		16	21		11	17	2	7	
P2	Toothbrush and toothpaste Pastu i četkicu	64.5	33	7		17	23		11	21	1	7	27.737 <0.001*
	Dental floss Konac	24.2	12	3		6	9		0	2	5	8	
	Mouthwash Tečnost za ispiranje usta	11.3	5	2		2	5		0	4	1	2	
P3	Toothbrush and toothpaste Pastu i četkicu	68.6	46	13		29	30		9	24	7	18	
	Alternative means Alternativne stvari	31.4	17	10		18	9		8	11	2	6	
P4	Yes Da	50.0	33	10		25	18		4	14	6	19	17.540 0.002*
	No Ne	50.0	30	13		22	21		13	21	3	5	
P5	Both day and night I danju i noću	40.7	25	10		25	10	6.703 0.010*	11	12	2	10	
	Just by day Samo danju	59.3	38	13		22	29		6	23	7	14	
P6	In container with water U posudi s vodom	51.2	30	14		27	17		13	20	4	6	13.464 0.009*
	In container without water U posudi bez vode	48.8	33	9		20	22		4	15	5	18	

F – female, M – male, ES – elementary education, HS – high school education, CE – college education, UE – university education, * – there is a statistically significant correlation
Ž – ženski pol, M – muški pol, OO – osnovno obrazovanje, SO – srednjoškolsko obrazovanje, VS – viša škola, UO – univerzitetsko obrazovanje, * – postoji statistička značajnost

reason for 18.1% of people and good price for services in 16.2%. 92.4% of respondents were satisfied with the oral health treatment they received at this institution (Table 4).

DISCUSSION

One of the key prerequisites for maintaining oral health and maintaining the therapeutic effect of prosthodontic appliances is to attend regular check-ups. Similar results were reported by Popović et al. in Serbia [16] and Škunac et al. in Croatia [17] as well as Mariño et al. in Chile [14] and Zhu et al. [15] in China. Zubiene et al. [18] reported more responsible oral health behaviour of elderly in Lithuania compared to elderly in Montenegro. The level of education in respondents was found to have impact on the regularity of check-ups (Table 2). On the question 13 from the questionnaire, close to half of respondents confirmed receiving advice from physicians about the importance of regular check-ups, at least once a year. However, the fact was that they did not follow given recommendations (Table 2). In the question 9, more than one third stated that they neglected their oral health because of ignorance or their occupation with other life problems (Table 2). As the reason for the last visit to the dentist, the results of our study are in agreement with the results of similar studies in Serbia [16], Chile [14], China [15] and related to pain/problems with mouth, teeth or dentures. Elderly in Lithuania [18] in 58.3% visited dentist even though they did not have any problems, understanding the importance of regular check-ups. In our study, elderly in Montenegro did not understand the integrity of health and the connection between general and oral health. Popović et al. [30] in 2016 estimated that 67.65% of elderly in the central region of Montenegro needed dental treatment related to making new dentures. The average age of dental appliances at that time was 11 years. Elderly people had more responsible attitude towards general health compared to oral health, and they performed basic laboratory findings (blood and urine tests) once a year. Persons with higher level of education were more responsible toward their oral health (Table 2). 97.1% of respondents had chosen general practitioner, while less than half of them had chosen dentist. Respondents 65 years old and older had trust in public (state) offices and went for dental services exclusively in state clinics and health centers (Table 2). All services in government clinics by 2008 were provided free of charge or with little participation for complete population, at the expense of the Healthcare Fund of Montenegro (FZOCG). At the same time private dental clinics were available as well. After 2008, when the reform of the health care system in Montenegro was implemented, 95% of dental offices

Table 4. Reasons for coming to the Faculty of Medicine in Podgorica and satisfaction with the provided oral health services
Tabela 4. Razlozi dolaska na Medicinski fakultet u Podgorici i zadovoljstvo pruženim stomatološkim uslugama

#	Answers Odgovori	%	Years Godine		χ^2 p	Gender Pol		χ^2 p	Education Obrazovanje				χ^2 p
			65–74	>75		F Ž	M M		ES OO	HS SO	CE VS	UE UO	
			n	n		n	n		n	n	n	n	
P1	Recommendation Preporuka	65.7	47	22	11.422 0.003*	39	30		14	29	7	19	
	Good price Dobra cena	16.2	17	0		7	10		6	7	0	4	
	Dentist expertise Stručnost	18.1	14	5		7	12		0	7	5	6	
P2	Yes Da	92.4	72	25		47	50		16	40	12	28	3.463 0.063*
	No Ne	7.6	6	2		6	2		4	3	0	1	

F – female, M – male, ES – elementary education, HS – high school education, CE – college education, UE – university education, * – there is a statistically significant correlation
Ž – ženski pol, M – muški pol, OO – osnovno obrazovanje, SO – srednjoškolsko obrazovanje, VS – viša škola, UO – univerzitetsko obrazovanje, * – postoji statistička značajnost

were transferred from the state to the private sector. Also the concept of "chosen dentist" was introduced. The most vulnerable categories of the population, including the elderly, received coverage in the obligatory form of dental care (e.g. mobile dentures in the form of acrylic dentures) and they could be treated by the dentist of their choice. All other services were charged at the market prices. In our study, respondents did not find satisfactory possibilities offered by the national system of dental care. The number of dental offices on the territory of Montenegro that have a contract with the FZOCG is around 190 (in Podgorica 123). This could be the reason why less than half of the respondents had chosen a dentist, due to the limited number of offices that have contract with FZOCG. Working with elderly is in all aspects very specific, and it is necessary to have properly trained personnel. According to the data of the Dental Chamber of Montenegro, there are currently eight specialists in prosthodontics in the country, and only one works at the Dental Polyclinic of the Clinical Center, as the most important dental institution of public health. Out of the existing number of specialists, five of them are part-time engaged in practical training at the Faculty. "A recommendation of a family member or friend" was decision for more than half of the respondents coming to the faculty clinic and high percentage of them expressed satisfaction with the service provided. Prevention of oral diseases is considered to be the most important segment of dentistry, and this was the reason why our research was initiated. It targets the elderly as their numbers are expected to increase in the future. Question 5 informed us that respondents did not know enough about the importance of preserving natural teeth. Although most of them were edentulous and with less than 20 remaining natural teeth, more than half of the respondents rated their oral health as good. Probably this is due to 81.9% of denture holders being satisfied with their existing dentures. It is necessary to emphasize the importance of work on the health literacy of the population [34]. Developing communication skills therapists need to build confidence and good cooperation between patients and dentists, which has a significant impact on the success of treatment and maintaining results in time. Mandatory check-ups with "selected dentist" must also be considered as part of the proper selection of information obtained from social networks. Using the information available on the Internet to gain knowledge about oral diseases, diagnostic and therapeutic options can be very useful, but only in conjunction with the information provided by the dentist as the only professional and qualified person to provide it.

In order to promote and implement the WHO recommendation [32], that persons under the age of 65 should preserve at least 20 natural teeth, it is necessary to work on the development of oral-hygiene habits and promote them as a basic condition for maintaining oral and dental health, improving general health and quality of life [28, 33]. Respondents older than 65 brushed their teeth / dentures 3 times a day, significantly more women than men, which is consistent with the results of Aoun et al. [26] in Lebanon (31.15% women; 22.54% men). Older people in Saudi Arabia [27] had greater commitment to maintaining oral hygiene than elderly in our study. Of the oral hygiene products according to the study by Olusile et al. [21], 39.9% of population older than 60 years of age in Nigeria used hygiene aids, which is in agreement with the results of our study. In contrast, elderly in Iran [19] and Western Cameroon [20] use them less frequently. Research by Asgari et al. [19] indicated that oral hygiene develops with age, and maximum is reached between the ages of 25-34 and then gradually decreases.

When it comes to maintaining denture hygiene, the results of our study are consistent with those of Evren et al. [22] done in Turkey. It is unquestionable that the patient should be provided with detailed instructions regarding the care of the denture and need for check-ups after denture delivery. Mok et al. [24] emphasized the importance of written guides for maintaining denture hygiene because they believe that older patients cannot remember all the instructions for various reasons such as stress, confusion or reduced memory. Mild impairments of cognitive power occur in 36.1% of hospitalized elderly patients and about 23% in those 65 years and older. Even without damaging cognitive power, most people remember less than 1/4 of

what they hear. Therefore, they recommend that patients in addition to the verbal instructions should be demonstrated brushing techniques and given instructions in the form of a brochure on denture maintenance and need for regular check-ups. Marchini et al. [25] investigated the link between the lack of oral health guidance and denture cleaning and the presence of prosthetic stomatitis. They concluded that mechanical cleaning was the predominant method of maintaining denture hygiene and lack of oral health information was related to inflammatory state of oral cavity. Strajnčić et al. [3] concluded that improper denture hygiene is health and aesthetic problem for the persons who use them. They recommended a combination of mechanical and chemical denture cleaning and use of tablets to clean dentures. Instructions must also be given on the proper use of dentures. Numerous studies [25, 26, 27] have focused on the impact of dentures on oral mucosa, microflora and nutritional status. The prevailing opinion is that alveolar mucosa should not be under constant pressure of the denture base, and that it is better to keep the denture (while not in the mouth) dry than in contact with water [31].

Studies like the current one have social significance, because the possession of the data collected this way contributes to the real design needs for material resources and human capacities for the provision of more efficient and higher quality dental care in general. The significance of this research is that it is the first study of oral hygiene habits and oral health behaviour in elderly, conducted in Montenegro. The use of questionnaires with the same or similar question as in this survey (as part of taking the medical history) can be very useful to make oral health profile of the patient and create a picture of the patient's habits and health understanding. These findings are important for making optimal treatment plan before beginning oral rehabilitation and making dentures. Future research should put the emphasis on older people living in the southern and northern region of the country. It is also necessary to include persons who are placed in homes for elderly stay.

The results can be considered representative of old people who live not only in Podgorica but also in the central region of the country. Looking for specialist services patients from other cities in the central part of the country (Danilovgrad, Cetinje and Niksic) typically come to Podgorica, that has about 300,000 inhabitants, ant that is almost half of the entire population of Montenegro.

CONCLUSION

Oral-health behaviour and oral-hygiene habits of the elderly in Podgorica are not satisfactory. As the elderly mostly need prosthodontics treatment, this part of dental care must be better organized in the state health system, and the Faculty can make a significant contribution to it.

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Oralnozdravstveno ponašanje i oralnohigijenske navike starih osoba u Podgorici, Crna Gora

Zorica Popović, Mirjana Đuričković

Univerzitet Crne Gore, Medicinski fakultet u Podgorici, Studijski program stomatologije, Podgorica, Crna Gora

KRATAK SADRŽAJ

Uvod U budućnosti se očekuje povećan broj starih osoba korisnika stomatoloških usluga. Cilj istraživanja je da ispita oralnozdravstveno ponašanje i oralnohigijenske navike starih osoba u Podgorici, Crna Gora.

Materijal i metode U istraživanju je korišćen upitnik zatvorenog tipa sa 21 pitanjem, koji je pripremljen u skladu sa preporukama Svetske zdravstvene organizacije. Korišćene su standardne statističke metode, χ^2 test, $p = 0,05$.

Rezultati Prosečna starost ispitanika je 71 ± 6,35 godina. Bezubo je 40% osoba; mobilne zubne nadoknade ima 81,90% osoba; poslednja poseta stomatologu bila je pre manje od godinu dana kod 25,7%, a pre više od pet godina kod 27,6% ispitanika; osobe sa visokim obrazovanjem redovnije dolaze na stomatološke preglede ($\chi^2 = 47,178$; $p < 0,001$); razlog posete bio je bol ili problem sa ustima, zubima ili zubnim nadoknadama kod 59% ispitanika; strah od stomatološke intervencije kao razlog nedolazaka kod stomatologa navelo je 33,3% ispitanika, dok 16,2% njih krivi visoku cenu usluga. Što se tiče loših navika ispitanika, 41% njih su korisnici duvanskih proizvoda, a 21% koristi alkoholne napitke; izabranog stomatologa ima manje od polovine osoba (40%); zube i/ili zubne proteze pere tri puta dnevno 41% ispitanika; pomoćna sredstva za oralnu higijenu koristi 35,6% ispitanika; tablete za čišćenje proteza koristi 50% njih.

Zaključak Oralnozdravstveno ponašanje i oralnohigijenske navike starih osoba u Podgorici nisu na zadovoljavajućem nivou. S obzirom na to da stari najviše imaju potrebu za protetskom terapijom, mora se raditi na unapređenju stomatoprotetske zaštite u državnom zdravstvenom sistemu.

Ključne reči: stare osobe; oralno zdravlje; oralnozdravstveno ponašanje; higijenske navike

UVOD

Demografski pokazatelji ukazuju na činjenicu da Evropa ubrzano stari. Do 2060. godine prosečan građanin Evropske unije (EU) imaće 47,2 godine, a osoba starijih od 65 godina biće skoro 30% u EU (16% u 2010. godini) [1]. Podaci Zavoda za statistiku Crne Gore (Monstat) takođe ukazuju na višedecenijski trend starenja stanovništva [2]. Procenat starijih od 65 godina porastao je sa 10% (1953. godine) na 18,3% (2011). Danas je petina stanovnika Crne Gore starija od 65 godina. U budućnosti ćemo imati znatno veći broj starih osoba koji su korisnici stomatoloških usluga, što direktno utiče na zdravstvene troškove i postaje ključni problem javnog zdravstva, čak i u razvijenijim zemljama [3].

Oko 30% ljudi na svetu u dobi od 65 do 74 godine nema više svoje prirodne zube [4]. *Jandial S.* i saradnici [5] komentarišući rezultate do kojih su došli u svojim istraživanjima iznose da je sa povećanjem starosti prisutan veći trend prema delimičnoj bezubosti, nakon čega sledi potpuna bezubost pacijenata, već kod starijih od 45 godina. Upozoravaju na uticaj bezubosti na stomatognati sistem, na opšte blagostanje, kvalitet života i naglašavaju značaj pravovremene zamene nedostajućih zuba. Među osnovnim smernicama Svetske zdravstvene organizacije (SZO) za poboljšanje oralnog zdravlja [6] u tačkama tri i četiri govori se: o potrebi da države razvijaju oralnozdravstvene sisteme u skladu sa potrebama korisnika i njihovim finansijskim mogućnostima; o neophodnosti integrisanja oralnog zdravlja u nacionalne zdravstvene programe uz naglašenu potrebu da se radi na zdravstenoj pismenosti stanovništva. Ključ uspeha je u preventivi i u stvaranju pojedinca koji je zdravstveno osvešćen. Preventivni programi ne daju uvek očekivane rezultate zbog neodgovarajućeg nivoa zdravstvene pismenosti stanovništva [7]. Zdravstvena pismenost je sposobnost čitanja, razumevanja i pravilnog korišćenja informacija, uputstava i smernica vezanih za vlastito zdravlje [8]. Njena definicija govori o tri stepenice u njenom razvoju (funkcionalna, interaktivna i kritička) [9] i njen nivo nije nužno proporcionalan stepenu formalnog obrazovanja, jer pojedinac može imati visok nivo formalnog obrazovanja, ali nedovoljnu svest o važnosti svoga zdravlja [10].

Oralna zdravstvena pismenost uključuje: poznavanje i sprovođenje oralnohigijenskih mera; prepoznavanje rizičnih činilaca koji utiču na oralno zdravlje; svesnost o povezanosti opšteg i oralnog zdravlja te njihovog uticaja na kvalitet života; takođe, izgradnju i održavanje različitih tradicionalnih i savremenih komunikacionih modela saradnje između pacijenata i stomatologa u svrhu podizanja stepena oralne zdravstvene pismenosti [11, 12]. Rezultati brojnih istraživanja ukazuju na značaj odgovornog ponašanja pojedinca prema sopstvenom oralnom zdravlju [13, 14, 15]. Status oralnog zdravlja starih osoba (zastupljenost bezubosti), oralnohigijenske navike i ponašanje u vezi sa oralnim zdravljem istraživali su autori u regionu [16, 17], u Evropi [18] i na drugim kontinentima [19–29].

Stare osobe većinom su nosioci zubnih nadoknada. *Kandelman D., Petersen P.* i saradnici [23] naglašavaju da je briga o protezama i sluzokožnom tkivu kao o ležištu proteza važna kako za oralno tako i za opšte zdravlje. Nečiste proteze prouzrokuju ili doprinose pojavi patoloških promena na oralnoj sluzokoži, lošoj ishrani, oboljenjima disajnih puteva, srca i želuca. Pacijentima s protezama koji su u poodmaklim godinama čišćenje proteza mora biti prioritet i mnogo više od estetike, mišljenja su autora koji su istraživali oralno zdravlje starih osoba [30–34]. Cilj istraživanja je da ispita oralnozdravstveno ponašanje i oralnohigijenske navike starih osoba u Podgorici, Crna Gora.

METODOLOGIJA

Pre realizacije istraživanja odrađene su obavezne mere koje prethode ovakvim istraživanjima, kao što je dobijanje saglasnosti Etičkog komiteta Medicinskog fakulteta Univerziteta Crne Gore u Podgorici i urađen je plan istraživanja.

Istaraživanje je rađeno po metodi analitičke studije preseka, u periodu od oktobra 2018. do aprila 2019. godine, na Medicinskom fakultetu u Podgorici, Studijskom programu stomatologije. Osoba koja je obavila istraživanje je doktorka stomatologije, specijalista stomatološke protetike, koja je radno angažovna na pomenutom fakultetu.

Istraživanjem je obuhvaćeno 105 osoba starosti između 65 i 96 godina sa prosečnom starošću od 71 godine (stand. devij. 6,35).

Metoda uključivanja ispitanika u istraživanje je bila zasnovana na sledećim karakteristikama:

1. Uključene su osobe starosti od 65 i više godina koje su se javile određenim danima (utorkom i četvrtkom), u periodu od oktobra 2018. do aprila 2019.

2. Uključene su osobe koje su dobrovoljno pristale da učestvuju u istraživanju nakon što su im objašnjeni svrha istraživanja, način distribucije dobijenih podataka i anonimnost učešća. O dobrovoljnosti su se izjasnili potpisivanjem informisanog pristanka.

Instrumenti istraživanja

Instrument istraživanja je upitnik koji se sastoji od 21 pitanja zatvorenog tipa. Upitnik je sačinjen za potrebe ovog istraživanja, a u njegovom kreiranju korišćene su preporuke Svetske zdravstvene organizacije [12]. Pitanja su podeljena u tri celine:

Prvi deo, koji sačinjava 13 pitanja, odnosi se na ponašanje ispitanika u vezi sa oralnim zdravljem. Drugi deo uputnika sastoji se od šest pitanja i odnosi se na oralnohigijenske navike. Treći deo čine dva pitanja koja se odnose na razloge koji motivišu pacijente da se obrate za oralnozdravstvene usluge na Fakultetu i zadovoljstvo pruženom uslugom. Pitanja uvrštena u upitnik prikazana su u Tabeli 1.

U statističkoj obradi podataka korišćene su metode deskriptivne i inferencijalne statistike. Od deskriptivnih metoda upotrebljene su aritmetička sredina i standardna devijacija. Podaci su obrađivani statističkim programom IBM STATISTICS 20. Korišćen je Pearson χ^2 test. Nivo značajnosti je 0,05.

REZULTATI

Struktura ispitanika

Prema polu struktura je: 53 (50,5%) ženskog i 52 (49,5%) muškog pola. U odnosu na godine starosti: 78 (74,3%) ispitanika je starosti 65–74 godine i 27 (25,7%) ispitanika je starosti 75 godina i više (71 ± 6,35; min. 65; max. 96). Prema stepenu obrazovanja: najviše ispitanika ima srednji stepen obrazovanja, i to 42 ispitanika (41%). Slede ispitanici sa visokim obrazovanjem, njih 29 (27,6%). Osoba sa završenom višom školom ima 12 (11,4%), sa osnovnom školom 18 (19%) i jedna osoba je bez obrazovanja (1%). Bezube su 42 (40%) osobe. Manje od 20 zuba imaju 43 (41%) osobe. Više od 20 zuba ima 20 (19%) osoba. Ispitanici su većinom nosioci mobilnih zubnih nadoknada, i to njih 86 (81,90%).

Oralnozdravstveno ponašanje

Rezultati istraživanja oralnozdravstvenog ponašanja ispitanika prikazani su u Tabeli 2.

Izabranog lekara opšte prakse ima 102 (97,1%) ispitanika. Jedanput godišnje rade osnovne laboratorijske pretrage 49 (46,7%). Izabranog stomatologa imaju 42 (40%) osobe. U odgovoru na pitanje broj 4, 43 (41%) osobe su se izjasnile da su svoje zube do tada isključivo lečile u državnim ordinacijama, u privatnim ordinacijama svega 7 (6,7%) osoba, dok se za stomatološke usluge obraćalo „i državnim i privatnim ordinacijama“ 55 (52,4%) ispitanika.

Za gubitak prirodnih zuba 62 (59%) ispitanika su okrivila karijes, a 41 (39%) ispitanik parodontopatiju. Pri samoproceni oralnog zdravlja 46 (43,8%) osoba ocenjuje svoje oralno zdravlje kao loše. Na pitanje o vremenu proteklom od poslednje posete stomatologu 27 (25,7%)ispitanika to je učinilo pre manje od jedne godine, a 29 (27,6%) njih pre više od pet godina. Kao razlog poslednje posete stomatologu 62 (59%) ispitanika je navelo „bol ili problem vezan za usta, zube ili zubnu nadoknadu“, dok je svega deset (9,5%) njih došlo na kontrolu. Na 13. pitanje iz upitnika, 39 (43,8%) ispitanika se seća da je dobilo savet od lekara o potrebi redovnih kontrola. Na pitanje o razlozima neredovnog dolaska na stomatološke preglede odgovori su sledeći: „strah od stomatološke intervencije“ – 35 (33,3%) ispitanika; „visoka cena stomatoloških usluga“ – 17 (16,2%) ispitanika; „nepostojanje (ili loša organizacija) stomatološke službe u mestu gde sam živeo/la“ – 13 (12,4%) ispitanika; „zanemarivanje zdravlja zuba i usta zbog drugih životnih problema“ – 22 (21%) ispitanika; „zanemarivanje zdravlja zuba i usta zbog nedovoljnog znanja o njihovom značaju“ – 18 (17,1%) ispitanika.

Kada je korišćenje duvanskih proizvoda u pitanju, 43 (41%) osobe su korisnici. Da su korisnici alkoholnih napitaka izjasnilo se njih 22 (21%).

Oralnohigijenske navike

Odgovori na pitanja koja se odnose na oralnozdravstvene navike prikazani su u Tabeli 3.

Tri puta u toku dana zube / zubnu protezu pere 41% ispitanika. Osoba koje imaju preostale prirodne zube je 62 (59,05%). Na pitanje koja sredstva koriste za njihovo pranje: 64,5% ispitanika koristi samo četkicu i pastu; 24,2% ispitanika osim četkice i paste koristi i dentalni konac; 11,3% ispitanika upotrebljava osim četkice i paste još i tečnosti za ispiranje usta. Osobe koje imaju zubne proteze u visokom procentu (68,6%) koriste četkicu i pastu za zube za pranje proteze. Alternativna sredstva za higijenu proteza (sapuni i deterdženti za pranje sudova koji se koriste u domaćinstvu, soda bikarbona, limunov sok, izbeljivač natrijum-hipohlorit, grube četke i sl.) koristi 31,4% nosilaca mobilnih zubnih proteza. Po pitanju korišćenja tableta za čišćenje proteza ispitanici su podeljeni. Navike nošenja zubne nadoknade tokom 24 h ispitanici su izrazili tako što se 40,7% njih izjasnilo da ih nosi „i danju i noću“, dok 59,3% ispitanika nosi zubne proteze samo danju. Kada proteze nisu u ustima, 51,2% osoba ih drži u čaši sa vodom, dok ih 48,8% osoba čuva u čaši/kutiji za protezu bez vode.

Razlozi dolaska na Medicinski fakultet u Podgorici i zadovoljstvo pruženim oralnozdravstvenim uslugama

Ispitanici su se na dva pitanja iz trećeg dela upitnika izjasnili da je „preporuka člana porodice ili prijatelja“ bila razlog da se za stomatološku uslugu obrate na Medicinski fakultet (65,7%

osoba). Stručnost stomatologa koji rade na Studijskom programu stomatologije je bila razlog kod 18,1% osoba i povoljna cena usluga kod 16,2% ispitanika. Oralnozdravstvenim tretmanom koji su dobili u pomenutoj ustanovi bilo je zadovoljno 92,4% pacijenata (Tabela 4).

DISKUSIJA

Jedan od ključnih preduslova za očuvanje oralnog zdravlja i održavanje terapijskog dejstva zubne nadoknade jeste dolazak na redovne kontrolne preglede. Rezultate slične kao kod crnogorskih ispitanika pokazala su istraživanja Popovića Ž. i saradnika [16] u Srbiji i Ograjšek Škunca i saradnika [17] u Hrvatskoj. *Mariño R.* i autori [14] u studiji rađenoj u Čileu pokazuju rezultate najsličnije onima kod starih u Crnoj Gori. Ponašanje starih u Kini istraživali su *Zhu L., Petersen P.* i saradnici [15] i rezultati su takođe saglasni. *Zubiene J.* i saradnici [18] ukazuju na odgovornije oralnozdravstveno ponašanje starih u Litvaniji u odnosu na stare u Crnoj Gori. Ustanovljeno je da stepen obrazovanja ima uticaj na redovnost posećenosti, što govori o uticaju formalnog obrazovanja na zdravstveno ponašanje (Tabela 2). Na 13. pitanje iz upitnika blizu polovine se izjasnilo da se seća da je dobilo savet od lekara o neophodnosti dolazaka na kontrolne preglede najmanje jednom godišnje. Kada ovaj podatak stavimo u korelaciju sa podatkom da mali broj ispitanika to zaista i čini, možemo zaključiti da stare osobe ne primenjuju uputstva lekara. Značajno više muškaraca u odnosu na žene se izjasnilo da je dobilo ovakav savet od stomatologa, a takođe i osobe 65–74 godine u odnosu na starije od 75 godina (Tabela 2). Evidentno je da su ispitanici svesni da je potrebno redovnije dolaziti na stomatološke preglede, što se vidi i po odgovoru na pitanje broj 9, gde više od jedne trećine navodi da je zanemarilo svoje oralno zdravlje zbog neznanja o njegovom značaju ili zbog okupiranosti drugim životnim problemima (Tabela 2).

Kao razlog poslednje posete stomatologu rezultati u ovoj studiji saglasni su sa rezultatima istraživanja kod starih osoba u Srbiji [16], u Čileu [14] i u Kini [15], gde dominira bol/problem sa ustima, zubima ili zubnim nadoknadama kao razlog posete. Stari u Litvaniji [18] u 58,3% posetili su stomatologa iako nisu imali zdravstvenih problema, čime pokazuju da shvataju značaj redovnih kontrola.

Može se reći da stare osobe u Crnoj Gori ne shvataju celovitost zdravlja i povezanost opšteg sa oralnim zdravljem. U svetlu rečenog treba sagledati podatak iz istraživanja Popovića Z. i saradnika [30] iz 2016. godine, kada je procenjeno da kod 67,65% starih osoba u središnjem regionu Crne Gore postoji potreba za brzim tretmanom, što se uglavnom odnosi na neophodnost izrade novih zubnih nadoknada. Prosečna starost zubnih nadoknada tada je iznosila 11 godina. Stare osobe imaju odgovorniji odnos prema opštem zdravlju u odnosu na oralno zdravlje, što se jasno vidi iz podatka da se blizu polovine njih jednom godišnje podvrgava kontroli osnovnih laboratorijskih nalaza (analiza krvi i urina). U ovome značajno prednjače osobe sa visokim stepenom obrazovanja u odnosu na ostale (Tabela 2). U prilog ovoj tvrdnji ide i podatak da je 97,1% ispitanika izabralo svog lekara opšte prakse, dok je svog stomatologa izabralo manje od polovine ispitanika. Da je decenijama unazad građeno poverenje u državni sistem stomatološke zaštite pokazuje podatak da su osobe koje danas imaju 65 i više godina u prethodnim decenijama u visokom procentu ostvarivale stomatološke usluge isključivo u državnim ordinacijama nasuprot osobama koje su to činile isključivo u privatnim ordinacijama (Tabela 2). Stare osobe stekle su oralnozdravstvene navike u vreme kada je zdravstveni sistem u Crnoj Gori bio sistemski uređen drugačije nego danas. Sve usluge u državnim ambulantama do 2008. godine pružane su bez novčane nadoknade ili uz neznatnu participaciju celokupnom stanovništvu o trošku Fonda za zdravstvenu zaštitu Crne Gore (FZOCG). Istovremeno su postojale i privatne zubne ordinacije. Nakon 2008. godine, kada je sprovedena reforma zdravstvenog sistema u Crnoj Gori, 95% stomatoloških ordinacija prevedeno je iz državnog u privatni sektor. Uveden je pojam „izabrani stomatolog". Najranjivije kategorije stanovništva, među kojima i stare osobe, obuhvaćene su obaveznim vidom stomatološke zaštite i omogućeno im je da se leče kod stomatologa koga same izaberu. Od stomatoprotetskih radova se ne naplaćuje izrada akrilatnih mobilnih zubnih proteza, dok se izrada svih ostalih zubnih nadoknada naplaćuje po tržišnim cenama. Danas crnogorski ispitanici ne prepoznaju u dovoljnoj meri mogućnosti koje im pruža državni sistem dentalne zaštite. Broj ordinacija na teritoriji Crne Gore koje imaju ugovor sa FZOCG, čiji doktori stomatologije stoje na raspolaganju da postanu „izabrani", ima oko 190 (u Podgorici 123). Razlog zbog kojeg je manje od polovine izabralo stomatologa možemo tražiti i u činjenici da iako zakonski postoji mogućnost registrovanja specijalizovanih ambulanti za stomatološku protetiku (što za stare osobe ima najveći značaj), do sada ne postoji takva specijalizovana ordinacija (koja ima ugovor sa FZOCG). Rad sa starim osobama je u svim aspektima veoma specifičan, te je potrebno osposobiti kadar za formiranje gerontostomatoloških timova. Prema podacima Stomatološke komore Crne Gore, trenutno na evidenciji strukovne organizacije stomatologa u državi postoji osam specijalista stomatološke protetike, a samo jedan radi u Stomatološkoj poliklinici Kliničkog centra, kao najznačajnijoj stomatološkoj ustanovi državnog zdravstva. Od postojećeg broja pet specijalista je honorarno angažovano u realizaciji praktične nastave na Fakultetu. Pokazalo se da je „preporuka člana porodice ili prijatelja" bila odlučujuća kod više od polovine ispitanika i ohrabruje podatak da je u visokom procentu izraženo zadovoljstvo pruženom uslugom. Rad na prevenciji oralnih oboljenja se smatra najvažnijim segmentom rada i upravo u tom cilju je i pokrenuto ovo istraživanje. Usmereno je na stare osobe jer se očekuje da će se u budućnosti povećavati njihov broj.

Da ne znaju dovoljno o značaju očuvanja prirodne denticije može se zaključiti i po odgovorima na pitanje broj 5. Iako su većinom bezubi i sa manje od 20 preostalih prirodnih zuba, više od polovine ispitanika svoje oralno zdravlje ocenjuje kao dobro. Razlog za ovakav odgovor može se naći u podatku da su 81,9% ispitanika nosioci mobilnih zubnih nadoknada i da je moguće da su kroz odgovor „dobro" izrazili zadovoljstvo postojećim nadoknadama.

Potrebno je neprestano naglašavati značaj rada na zdravstvenom opismenjavanju stanovništva [34]. Razvijanje komunikacijskih veština terapeuta treba da doprinese stvaranju poverenja i dobre saradnje između pacijenta i stomatologa, što ima značajan uticaj na uspeh terapije i održavanje terapijskih rezultata u vremenu nakon predaje/cementiranja zubne nadoknade. Insistiranje na obaveznoj kontroli kod „izabranog stomatologa" mora se posmatrati i u sklopu pravilnog selektovanja informacija dobijenih sa društvenih mreža. Korišćenje informacija do-

stupnih na internetu za sticanje saznanja o oralnim oboljenjima, dijagnostičkim i terapijskim mogućnostima može biti veoma korisno, ali samo i jedino u sadejstvu sa informacijama koje se dobijaju od doktora stomatologije kao jedinog stručnog i kvalifikovanog lica za pružanje informacija.

U cilju promovisanja i ostvarivanja preporuke SZO [32] da osobe do 65 godina života treba da sačuvaju najmanje 20 prirodnih zuba, neophodno je raditi na razvijanju oralnohigijenskih navika i promovisati ih kao osnovni uslov očuvanja zdravlja usta i zuba, unapređenja opšteg zdravlja i kvaliteta života [28, 33]. Svoje zube / zubne proteze peru tri puta u toku dana značajno više žene (u odnosu na muškarce), što je saglasno sa rezultatima koje imaju *Aoun G.* i saradnici [26] u Libanu (31,15% žena; 22,54% muškaraca). Veću posvećenost održavanju oralne higijene pokazuju stari u Saudijskoj Arabiji [27] u odnosu na stare osobe u ovom istraživanju. *Olusile A. O* i saradnici [21] u studiji rađenoj u Nigeriji ukazuju da od sredstava za oralnu higijenu osobe starije od 60 godina koriste pomoćna sredstva za higijenu u 39,9% slučajeva, što je saglasno sa rezultatima u ovoj studiji. Nasuprot tome, stare osobe u Iranu (*Asgari F.* i saradnici [19]) i u zapadnom Kamerunu (*Lolita Y. M* [20]) znatno ređe ih koriste. *Asgari F.* i saradnici [19] u svom istraživanju ukazuju da se oralna higijena razvija sa godinama, da se maksimum postiže u dobi između 25–34 godine, a zatim postepeno opada.

Kad je u pitanju održavanje higijene zubne proteze, rezultati u ovoj studiji u skladu su sa rezultatima istraživanja koje su prikazali *Evren B. A.* i saradnici [22] u Turskoj. Nesumnjivo je da pacijentu pri predaji proteze treba pružiti detaljna uputstva o nezi iste i o neophodnosti kontrolnih pregleda. *Mok J.* i saradnici [24] naglašavaju značaj pisanih brošura za održavanje higijene proteza jer smatraju da stariji pacijenti ne mogu da zapamte sve instrukcije iz različitih razloga, kao što su stres, zbunjenost ili njihova smanjena memorija. Blaga oštećenja saznajnih moći pojavljuju se kod 36,1% hospitalizovanih starijih pacijenata i kod oko 23% onih od 65 godina i starijih. Čak i bez oštećenja saznajnih moći većina ljudi zapamti manje od 1/4 onog što čuju. Stoga preporučuju da se pacijentima pored verbalnih instrukcija demonstriraju tehnike pranja i uruči uputstvo u obliku brošure o održavanju proteze i o potrebi redovnih kontrola. *Marchini* i saradnici [25] istraživali su vezu između nedostatka uputstava koja se tiču oralnog zdravlja i čišćenja proteze i prisustva proteznog stomatita. Zaključuju da je mehaničko čišćenje preovlađujući metod održavanja higijene proteza i da je nedostatak informacija o brizi za oralno zdravlje bio statistički povezan s inflamatornim stanjem oralne duplje. Strajnčić J. i saradnici [3] zaključuju da nečiste proteze predstavljaju zdravstveni i estetski problem za osobe koje ih koriste. Preporučuju kombinaciju mehaničkog i hemijskog čišćenja proteza i korišćenje tableta za čišćenje proteza. Takođe se moraju dati uputstva o pravilnom korišćenju proteza. Brojna istraživanja [25, 26, 27] posvećena su uticaju proteze na oralnu sluzokožu i mikrofloru i na nutricioni status. Preovladava mišljenje da sluzokoža tegmenta ne sme da bude pod stalnim pritiskom protezne baze, kao i da je protezu bolje držati (dok nije u ustima) na suvom nego u kontaktu sa vodom [31].

Istraživanja ovog tipa imaju društveni značaj, jer posedovanje podataka prikupljenih na ovaj način doprinosi realnom projektovanju potrebe za materijalnim sredstvima i kadrovskim kapacitetima za obezbeđenje efikasnije i kvalitetnije stomatološke zaštite u celini. Značaj ovog istraživanja je i u tome što je prvo istraživanje oralnohigijenskih navika i oralnozdravstvenog ponašanja kod starih osoba rađeno u Crnoj Gori. Korišćenje u svakodnevnoj praksi upitnika sa istim ili sličnim pitanjima kao što su u ovom upitniku (u sklopu uzimanja anamnestičkih podataka) može biti veoma korisno za pravljenje oralnozdravstvenog profila pacijenta i stvaranje slike o pacijentovim navikama i shvatanju zdravlja. Ova saznanja su važna za donošenje optimalnog plana terapije pre početka sanacije oboljenja usne duplje i izrade zubne nadoknade. U budućim istraživanjima treba staviti akcenat na stare osobe koje žive u južnom i severnom regionu države. Takođe je potrebno obuhvatiti osobe koje su smeštene u domovima za boravak starih lica.

Dobijeni rezultati mogu se smatrati reprezentativnim za stare osobe koje žive ne samo u Podgorici već i u središnjem regionu države. U potrazi za specijalističkom uslugom pacijenti iz drugih gradova središnjeg dela države (Danilovgrad, Cetinje i Nikšić) dolaze u Podgoricu, u kojoj živi oko 300.000 stanovnika, što je skoro polovina cele Crne Gore.

ZAKLJUČAK

Oralnozdravstveno ponašanje i oralnohigijenske navike starih osoba u Podgorici nisu na zadovoljavajućem nivou. S obzirom na to da stari najviše imaju potrebu za protetskom terapijom, mora se raditi na unapređenju stomatoprotetske zaštite u državnom zdravstvenom sistemu, čemu značajno može da doprinese Fakultet.

Zahvalnost Stomatološkoj komori Crne Gore na pružanju podataka iz svoje nadležnosti i evidencije.