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Assessment of Orofacial Esthetics among Different Specialists in Dental Medicine: A pilot study

Procjena orofacijalne estetike različitih specijalista dentalne medicine: pilot-istraživanje

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Abstract
Objectives: Little is known whether specialists in different dental fields assess orofacial esthetics differently due to various focus of their interest. The aim was to find out if there is a difference in judgement of orofacial esthetics among specialists in three different fields of Dental Medicine, i.e. specialists in Prosthodontics (S-Prosthod), Periodontology (S-Perio), and Orthodontics (S-Ortho). **Material and methods:** A total of 69 specialists (23 participants in each group) assessed the same 60 photographs of the lower third of the face of young healthy people with Angle Class I and natural teeth while smiling. Moreover, the assessed anterior teeth on the photographs of similes had to be without any restorations. The assessments were made using 7 out of 8 Items of Orofacial Esthetic Scale (OES). A face profile assessment was not performed. A Likert 1-5 scale was used for assessments (1-the worst score; 5-the best score). Mean values of summary scores as well as of each OES item were calculated for each specialist for further statistical analysis. One-sample Kolmogorov-Smirnov test, descriptive statistics, one-way ANOVA, and Sheffe post-hoc tests were performed. **Results:** The specialists in Periodontology gave significantly lowest scores to all 7 items related to orofacial esthetics, while the specialists in Prosthodontics gave the highest scores (p<0.05). **Conclusion:** Assessments of orofacial esthetics differ significantly among specialists in Prosthodontics, Periodontology and Orthodontics. Further study is needed to clarify the factors which influence the judgement, and to find out if specific education in certain specialties can modify the assessment.

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Introduction

Different factors (cultural, environmental, socio-economic, stimuli from media, color perception, level of education, etc.) can modulate people's assessment of orofacial esthetics (1-9). Some genetic factors can also contribute, especially the differences in color perception (4, 9, 10). Moreover, a new background color can also modify color perception (11).

Little is known whether or how education in a specific area of dental medicine can modify the assessment of orofacial esthetics. Kokich et al. were the first to begin the exploration of differences in the perception of smile (12). Their research showed that the level of education of dentists affected the perception of the beauty of teeth and smiles, while individuals belonging to the general population exhibited the least amount of criticism. It would be interesting to find out whether different specialties in dental medicine have different perception and assessment of orofacial esthetics.

Uvod

Različiti čimbenici (kulturni, okolišni, socijalno-ekonomski, utjecaji medija, percepcija boja, razina obrazovanja itd.) utječu na procjenu ljudi o orofacijalnoj estetici (1 – 9). Tome pridonose i neki genetski čimbenici, posebice razlike u percepciji boja (4, 9, 10). Nadalje, različita boja pozadine također može promijeniti percepciju boja (11).

Malo je poznato može li i kako obrazovanje u određenom području dentalne medicine promijeniti procjenu orofacijalne estetike. Kokich i suradnici prvi su počeli istraživati razlike u percepciji osmijeha (12). Njihovo istraživanje pokazalo je da stupanj obrazovanja stomatologa utječe na percepciju ljepote zuba i osmijeha, a pojedinci iz opće populacije bili su najmanje kritični. Bilo bi zanimljivo istražiti imaju li različite specijalnosti dentalne medicine različitu percepciju i procjenu orofacijalne estetike.

Navedene reference temelje se na različitim kriterijima ocjenjivanja (dihotomna ljestvica, Likertova ljestvica itd.) i na

The aforementioned references are based on different criteria of assessment (dichotomous scale, Likert scale, etc.) and on various issues. A unique questionnaire (Orofacial Aesthetic Scale) comprising 8 questions relating only to the esthetics of the orofacial region has excellent psychometric properties (13). In the Croatian cultural environment, Peršić et al. have translated and examined the same questionnaire and it was shown that it has satisfactory characteristics (14).

The aim was to compare assessments of orofacial esthetics of specialists in Prosthodontics (S-Prosthod), in Periodontology (S-Perio), and in Orthodontics (S-Ortho). The null hypothesis was that the perception of orofacial esthetics is equal among them.

Material and methods

Specialists in three different fields of dental medicine participated in the study, i.e. specialists in prosthodontics, specialists in orthodontics, and specialists in periodontology. Based on the data obtained in the previous study (15), the minimum number of participants was set at 22 for each specialist group (alpha = 0.05, power = 80%). To be included in the study, the minimum duration of practicing as a specialist had to be 5 years. All specialists who participated in the study were practicing either in their private specialist practices, or in public specialist practices, such as Clinical Hospital Centre Zagreb, Polyclinic Zagreb, Split, Rijeka, or other cities in Croatia. Prior to inclusion, all specialists also completed the Farnsworth–Munsell 100 Hue Test (X-Rite, Grand Rapids) to test the ability of color discrimination, and those whose error score was above 26 were excluded.

The specialists in the three fields of dental medicine assessed and scored the same 60 photographs of the lower third of the face of respondents (healthy young individuals) of Angle class I with all teeth present, without any restorations on anterior teeth.

Photographs of 60 respondents were obtained while smiling (Figure 1). Those young individuals were recruited and photographed upon the following criteria: all teeth present, no crowns or bridges, Angle class I, age 19-25 years. Some of the respondents were students of the Dental School, some of them were their friends, relatives, etc.; however all had to meet the inclusion criteria. They were well informed about the purpose of the research and all of them gave a written consent to be photographed. The females had to remove lipstick and males had to be shaved. The photographs of the lower third of

različitim pitanjima. Jedinstveni upitnik (orofacijalna estetska ljestvica) koji se sastoji od osam pitanja koja se odnose samo na estetiku orofacijalnoga područja ima izvrsna psihometrijska svojstva (13). U hrvatskome kulturnom okružju Peršić i suradnici preveli su i ispitali taj upitnik i pokazalo se da ima zadovoljavajuće karakteristike (14).

Cilj je bio usporediti procjene orofacijalne estetike specijalista protetike (S-Prosthod), parodontologije (S-Perio) i ortodoncije (S-Ortho). Početna hipoteza glasila je da je percepcija orofacijalne estetike među njima jednaka.

Materijal i metode

U istraživanju su sudjelovali stručnjaci iz triju različitih područja stomatologije, odnosno specijalisti protetike, ortodoncije i parodontologije. Na temelju podataka dobivenih u prethodnome istraživanju (15), minimalni broj sudionika postavljen je na 22 za svaku specijaliziranu skupinu (alfa = 0,05, snaga = 80 %). Uvjet za uključivanje u istraživanje bio je minimalno iskustvo specijalista od pet godina. Svi specijalisti koji su sudjelovali u istraživanju radili su u svojoj privatnoj ili u javnoj ordinaciji, kao što su Klinički bolnički centar Zagreb, te poliklinike u Zagrebu, Splitu, Rijeci ili u drugim gradovima u Hrvatskoj. Prije uključivanja svi su stručnjaci također riješili Farnsworth–Munsellov test 100 Hue (X-Rite, Grand Rapids) kako bi se ispitala njihova sposobnost razlikovanja boja, a oni čija je ocjena pogreške bila iznad 26 bili su isključeni.

Specijalisti iz triju područja dentalne medicine ocijenili su i bodovali 60 jednakih fotografija donje trećine lica ispitanika (zdrave mlade osobe) Angleove klase I sa svim zubima, bez ikakvih nadomjestaka na prednjim zubima.

Raspolagalo se fotografijama 60 ispitanika slikanima dok su se smiješili (slika 1.). Te mlade osobe izabrane su i fotografirane prema sljedećim kriterijima: imaju sve zube, bez krunica su i mostova, malokluzija je u Angleovoj klasi I i u dobi su od 19 do 25 godina. Neki od njih bili su studenti stomatologije, neki njihovi prijatelji, rođaci itd. No svi su morali zadovoljiti kriterije za uključivanje. Bili su dobro informirani o svrsi istraživanja i svi su potpisali pristanak za fotografiranje. Djevojke su morale obrisati ruž za usne, a muškarci su se morali obrijati. Fotografije donje trećine lica dobivene su pri neizravnome dnevnome svjetlu ispred profesionalne sive poza-

Figure 1 Photograph of the lower third of the face while smiling
Slika 1. Fotografija donje trećine osmijeha lica

the face were obtained at indirect daylight in front of a professional grey background using the Nikon COOLPIX S3100 camera (Tokyo, Japan) from a 15 cm distance (16). The dimension of each photograph was 10 x 15 cm.

Each specialist who assessed those 60 photographs also gave the informed consent to be included in the study. All assessments of the photographs were made between 10 a.m. and noon. The Orofacial esthetic scale (OES) was used for the assessment, but only 7 out of 8 items were included and scored. The assessments were made using the Likert-type 1-5 scale (1-completely dissatisfying, 5=completely satisfying) (14). The item no. 2 related to assessment of the profile of the face was not assessed as all photographs were obtained only from the frontal view. Seven assessed items of the Orofacial Esthetic Scale were as follows: Item no. 1. = assessment of the low third of the face from the frontal view; Item no. 2. = assessment of the mouth, lips and visible teeth; Item no. 3. = assessment of the tooth alignment; Item no. 4. = assessment of the tooth shape; Item no. 5. = assessment of tooth color; Item no. 6. = assessment of gingiva; and Item no. 7. = overall impression of the low third of the face of the photograph of the respondents while smiling.

The Ethics Committee of the respective Dental Schools approved the study. Written consents were obtained. The study was performed according to the Declaration of Helsinki, and it conforms to legal standards.

A statistical analysis was made using the SPSS 20 software (one-sample Kolmogorov-Smirnov test, descriptive statistics, one-way ANOVA, Sheffe post-hoc).

Results

A total of 69 specialists in three different fields in dentistry were included, 23 of them in each specialist group. The mean age (range 36-53 years) among the three specialist groups was not significantly different (p>0.05). The S-Prosthod group comprised eight males, the S-Perio nine, and the S-Ortho seven. No significant difference was found between the male and the female assessments (p>0.05).

Figure 2 presents mean scores of the three specialist groups (S-Prosthod, S-Perio and S-Ortho) for each of the sev-

dine s pomoću fotoaparata Nikon COOLPIX S3100 (Tokio, Japan) s udaljenosti od 15 cm (16). Dimenzije su bile 10 x 15 centimetara.

Svaki stručnjak koji je procjenjivao tih 60 fotografija također je potpisao informirani pristanak za sudjelovanje u istraživanju. Sve procjene obavljene su prijepodne između 10 i 12 sati. Pritom je korištena orofacijalna estetska ljestvica (OES), ali samo je sedam od osam stavki bilo uključeno i ocijenjeno. Procjenjivalo se s pomoću Likertove ljestvice od jedan do pet (pri čemu je ocjena jedan bila potpuno nezadovoljavajuća, a pet potpuno zadovoljavajuća) (14). Stavka br. 2, koja se odnosi na procjenu profila lica, nije procijenjena jer su sve fotografije dobivene samo iz frontalnoga kuta gledanja. Sedam procijenjenih stavki orofacijalne estetske ljestvice bile su sljedeće: stavka br. 1 = procjena donje trećine lica iz frontalnoga kuta gledanja; stavka broj. 2 = procjena usta, usana i vidljivih zuba; stavka broj. 3 = procjena poravnanja zuba; stavka broj. 4 = procjena oblika zuba; stavka broj. 5 = procjena boje zuba; stavka broj. 6 = procjena gingive; i stavka broj 7 = ukupni dojam donje trećine lica s fotografija nasmiješenih ispitanika.

Studiju je odobrilo Etičko povjerenstvo Stomatološkog fakulteta. Pribavljene su pisane suglasnosti. Studija je provedena u skladu s Helsinškom deklaracijom i svim zakonskim standardima.

Statistička analiza obavljena je u softveru SPSS 20 (jedan uzorak Kolmogorov-Smirnovljeva testa, deskriptivna statistika, jednosmjerna ANOVA, Sheffeov post-hoc test).

Rezultati

Uključeno je ukupno 69 specijalista iz triju različitih područja stomatologije i to po 23 u svakoj specijalističkoj skupini. Prosječna dob (raspon 36 – 53 godine) između triju specijalističkih skupina nije se značajno razlikovala (p > 0,05). Skupina protetičara (S-Prosthod) sastojala se od osam specijalista, parodontologa (S-Perio) je bilo devet, a ortodonata (S-Ortho) sedam. Nije pronađena znatna razlika između procjena kod muškaraca i žena (p > 0,05).
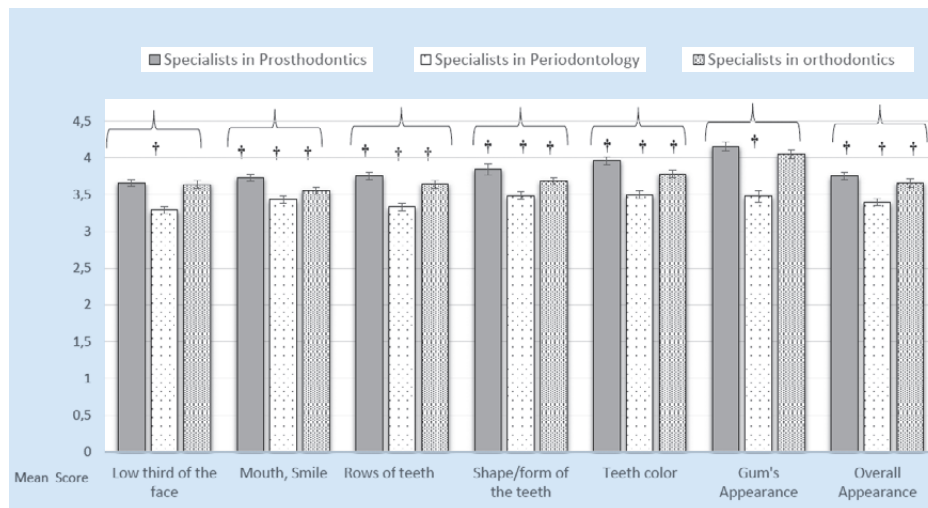
Figure 2 Mean scores of the assessments of the three specialist groups (S-Prosth, S-Perio and S-Orthod) for the each of the 7 OES items, together with the 95% confidence intervals and significance of the differences between the groups; †=significantly different (p<0.05)

Slika 2. Prosječni rezultati procjena triju skupina specijalista (S-Prosth, S-Perio i S-Orthod) za svaku od 7 OES-ovih stavki, zajedno s intervalima pouzdanosti od 95 % i značajnošću razlika između skupina; † = značajno različita (p < 0,05)

en OES Items together with the 95% confidence intervals. It also shows the significance of differences between the specialists' scores (S-Prosthod; S-Perio, and S-Ortho) for each of the 7 OES items (one-way ANOVA/Sheffe post-hoc). Significant differences were found among all three groups of specialists (p<0.05) for 5 out of 7 items (for the assessment of mouth and smile appearance, assessment of rows of the teeth -dental arch, assessment of teeth shape/form, assessment of teeth color, assessment of overall appearance) with the highest scores obtained by the S-Prosthod specialists, followed by the S-Ortho specialists, and the S-Perio specialists, respectively. For 2 items (assessment of the low third of the face and assessment of gum appearance) the S-Perio obtained significantly lower scores than the S-Prosthod and the S-Ortho (p<0.05), whose assessments were similar (p>0.05).

Discussion

Orofacial esthetics is one of the most important factors in oral health related quality of life (OHRQoL) of dental patients (17-21). The appearance of teeth, gums, and jaws is restored and changed by a large number of restorative, prosthodontic, periodontal, orthodontic and other oral interventions. The perception of esthetics of a therapist can modify the treatment results and affect the intervention. Therefore, it is very important to determine whether there is a difference in the assessment of orofacial esthetics between different specialties in dental medicine. The results of the present study revealed significant differences among the three different specialists (S-Prosthod, S-Perio and S-Ortho), although they assessed the same 60 photographs of respondents (healthy young people) while smiling.

To exclude variations in color perception, we performed the Farnsworth–Munsell 100 Hue Test, and excluded anyone with error score higher than 26. About 68% of the population scored between 16 and 100 on the first Farnsworth–Munsell 100 Hue Test , which represents a normal range of competence for color discrimination. About 16% of the population made 0 to 4 transpositions on the first test, or total error scores of zero to 16, which is a superior range of competence for color discrimination. We wanted to include only specialists with superior or very good color vision, therefore we set upper limit of an error score at 26. Furthermore, to exclude tiredness, each specialist scored the photographs between 10 a.m. and noon, at indirect daylight.

The S-Prosthod obtained the highest scores while assessing the items of the OES, followed by the S-Ortho and the S-Perio specialists. The best scores of orofacial appearance in the S-Prosthod group may be attributed to many factors, including their education. Prosthodontists were more tolerant towards deviations from the "ideal esthetics"; they were less critical in assessing the appearance of gums compared to specialists in periodontology and less critical in assessing the appearance of the rows of teeth than specialists in orthodontics. Perhaps the reason is that they mostly work with middle-aged and elderly patients whose needs are to restore their natural appearance that will not be perceived as artificial teeth,

Na slici 2. prikazani su prosječni rezultati triju specijaliziranih skupina (S-Prosthod, S-Perio i S-Ortho) za svaku od sedam OES-ovih stavki, zajedno s intervalima pouzdanosti od 95 %. Također pokazuje značenje razlika između rezultata specijalista (S-Prosthod; S-Perio i S-Ortho) za svaku od sedam OES-ovih stavki (jednosmjerna ANOVA/Sheffeov post-hoc test). Ustanovljene su značajne razlike između svih triju skupina specijalista (p < 0,05) za pet od sedam stavki (za ocjenu izgleda usta i osmijeha, procjenu zubnih redova − zubni luk, procjenu oblika/forme zuba, procjenu izgleda boje zuba, procjena cjelokupnoga izgleda) s najvišim ocjenama koje su dali specijalisti protetike, zatim specijalisti ortodoncije, odnosno parodontologije. Za dvije stavke (procjena donje trećine lica i procjena izgleda desni) parodontolog je dao značajno niže ocjene od protetičara i ortodonta (p < 0,05), čije su ocjene bile slične (p > 0,05).

Rasprava

Orofacijalna estetika jedan je od najvažnijih čimbenika kvalitete života u vezi s oralnim zdravljem (OHRQoL) stomatoloških pacijenata (17 – 21). Izgled zuba, desni i čeljusti obnavlja se i mijenja mnogim restaurativnim, protetičkim, parodontološkim, ortodontskim i drugim oralnim zahvatima. Percepcija estetike terapeuta može modificirati rezultate liječenja i utjecati na intervenciju. Zato je vrlo važno ustanoviti postoji li razlika u procjeni orofacijalne estetike između različitih specijalnosti dentalne medicine. Rezultati ovoga istraživanja otkrili su značajne razlike u procjenama triju različitih specijalista (S-Prosthod, S-Perio i S-Ortho), iako su procjenjivali 60 jednakih fotografija ispitanika (zdravih mladih ljudi) dok su nasmijani.

Kako bismo isključili varijacije u percepciji boja, primijenili smo Farnsworth–Munsellov 100 Hue test i isključili sve koji imaju ocjenu pogreške veću od 26. Oko 68 % populacije ima ocjenu između 16 i 100 na prvome Farnsworth–Munsellovu 100 Hue testu, što je normalan raspon sposobnosti za razlikovanje boja. Oko 16 % populacije napravi od 0 do 4 transpozicije na prvome testu, ili ukupnu pogrešku od nula do 16, što je superiorno raspon sposobnosti za razlikovanje boja. Željeli smo uključiti samo stručnjake s vrhunskim ili vrlo dobrim vidom kada je riječ o bojama, zato smo postavili gornju granicu ocjene pogreške na 26. Nadalje, da bi se isključio umor, svaki je stručnjak bodovao fotografije prijepodne između 10 i 12 sati na neizravnome dnevnom svjetlu.

Protetičar je dao najviše ocjene za stavke OES-a, a slijede specijalisti ortodoncije i parodontologije. Najbolji rezultati orofacijalnog izgleda u skupini protetičara mogu se pripisati mnogim čimbenicima, uključujući i obrazovanje. Istaknimo da su bili tolerantniji prema odstupanjima od "idealne estetike" i bili su manje kritični u procjeni izgleda zubnoga mesa od parodontologa te u procjeni izgleda zubnih lukova od ortodonata. Možda je razlog za to što uglavnom rade s pacijentima srednje i starije dobi koji žele da im se vrati prirodni izgled zuba koji neće izgledati kao umjetni, nego će ih drugi doživljavati kao prirodne i poželjne. Pri rehabilitaciji svojih pacijenata, specijalisti protetike ulažu mnogo truda da bi nadomjestci, fiksne ili mobilne proteze, izgledali prirodno, a

but will be perceived by others as natural and desirable one. When rehabilitating their patients, the specialists in prosthodontics make efforts to obtain natural looks of restorations such as fixed or removable dentures, rather than to achieve an ideal symmetry, white bleaching color and perfectly correct teeth arrangement. Therefore, they might have been more tolerant to small typical or atypical tooth rotations, and small asymmetries or small discrepancies. During rehabilitation of their patients they usually recommend their patients to bring their photographs while they still had their own teeth to use them in a selection and arrangement of artificial teeth and occlusal plane inclination to achieve a natural look (9, 16, 22).

The specialists in periodontology obtained the lowest scores while assessing all 7 OES items; however the biggest difference in ratings was for the gum appearance. This was expected, as the specialists in periodontology are focused on the gum appearance and pink esthetics (2). However, they scored teeth alignment (rows of teeth) even lower than the specialists in orthodontics, which was attributed to the fact that small tooth rotations also affect an ideal appearance of the gingiva, gingival zenith and level of papillae.

All three specialists involved in this study assessed tooth color with higher scores than the laypeople in the previous study (15), who scored the same 60 photographs using the same 7 OES items. That was attributed to the fact that all media affect laypeople's opinion, pushing patients to perform tooth bleaching, thus making their teeth whiter, larger, more beautiful and acceptable (3, 24-27).

The limitations of the present study are as follows: mood swings, tiredness, lack of motivation, etc., during assessments, which we tried to avoid by asking participants to assess all photographs in the morning hours. Another reason may be due to small differences in perception of tooth color, tooth rotation, arrangement, etc. The abovementioned differences are going to be the subject of our further research. The strength of the research is the utilization of the psychometrically validated questionnaire (14, 15); hence a comparison with similar research worldwide will be possible in the same manner as it is when using other validated questionnaires (21, 28-32).

Up to our best knowledge, this is the first study on how specialists in different fields of dental medicine perceive orofacial esthetics. These findings could help us educate doctors with the aim of changing their perception and increasing their sensitivity to certain dental anomalies, which in clinical work would result in better esthetics and bringing the treatment results closer to the patient's expectations. However, further research is needed to gain a better insight into how specific education may change the perception of orofacial esthetics.

Conclusions

The assessment of orofacial esthetics differs significantly among specialists in Prosthodontics, Periodontology and Orthodontics. Further study is needed to clarify which factors influence the judgement, and to examine whether education in a certain specialty modifies the assessment.

ne da bi postigli idealnu simetriju, bijelu boju izbjeljivanjem i savršeno ispravan raspored zuba. Zato su možda bili tolerantniji kada je riječ o malim tipičnim ili netipičnim rotacijama zuba te malim asimetrijama ili odstupanjima. Tijekom rehabilitacije pacijenata obično im preporučuju da donesu svoje fotografije na kojima još imaju svoje zube kako bi ih iskoristili u odabiru i rasporedu umjetnih zuba i nagibu okluzalne ravnine da bi postigli prirodan izgled (9, 16, 22).

Specijalisti parodontologije dali su najniže ocjene za svih 7 OES-ovih stavki, no najveća razlika bila je za izgled desni. To je bilo i očekivano jer su parodontolozi usmjereni na izgled zubnoga mesa i ružičastu estetiku (2). No oni su čak lošije procijenili poredak zuba (zubnih lukova) od ortodonata, što se pripisuje činjenici da male rotacije zuba također utječu na idealan izgled gingive, gingivalni zenit i razinu papila.

Sve tri skupine specijalista uključene u ovu studiju dale su boji zuba više ocjene od laika u prethodnoj studiji (15) koji su ocijenili jednakih 60 fotografija koristeći se s istih sedam OES-ovih predmeta. To se pripisuje činjenici da mediji utječu na mišljenje laika pa oni smatraju izbijeljene i velike zube lijepima i prihvatljivima (3, 24 – 27).

Ograničenja istraživanja su razlike u raspoloženju, umor, motivacija i slično tijekom procjenjivanja, što smo pokušali izbjeći tražeći od sudionika da procijene sve fotografije u prijepodnevnim satima. Drugi razlog može biti u malim razlikama u percepciji boje zuba, rotaciji zuba, rasporedu itd. To će biti predmet našega daljnjeg istraživanja. Snaga istraživanja je korištenje psihometrijski validiranoga upitnika (14, 15), pa će biti moguća usporedba sa sličnim istraživanjima u svijetu te pri korištenju drugih validiranih upitnika (21, 28 – 32).

Prema našim spoznajama, ovo je prva studija o tome kako stručnjaci iz različitih područja dentalne medicine percipiraju orofacijalnu estetiku. Dobiveni rezultati mogli bi pomoći u edukaciji liječnika sa svrhom da se promijeni njihova percepcija i poveća osjetljivost za određene dentalne anomalije, što bi u kliničkome radu rezultiralo boljom estetikom i približavanjem rezultata liječenja pacijentovim očekivanjima. No potrebna su daljnja istraživanja da bi se stekao bolji uvid u to kako specifično obrazovanje može promijeniti percepciju orofacijalne estetike.

Zaključak

Procjena orofacijalne estetike značajno se razlikuje između specijalista protetike, parodontologije i ortodoncije. Potrebno je dodatno proučavanje da bi se razjasnilo koji čimbenici utječu na prosudbu te mijenja li procjenu obrazovanje u području određene specijalnosti.

Conflict of interest

The authors report no conflict of interest.

Author's contribution: N.P., I.K. - significantly contributed to the concept and design of the study and data collection; **A.Č.** - analyzed and interpreted data; **N.P., N.P.** - searched the literature and wrote the text, critically revised the manuscript. All authors read the text and agreed to the published version.

Sukob interesa

Autori nisu bili u sukobu interesa.

Doprinos autora: N. P., I. K. - značajno doprinijeli konceptu i dizajnu studije i prikupljanju podataka; **A. Č.** - analizirala i interpretirala podatke; **N. P., N. P.** - pretraživali literaturu i napisali tekst, kritički doradili rukopis. Svi su autori pročitali tekst i pristali na objavljenu verziju.

Sažetak

Uvod: Malo je poznato procjenjuju li stručnjaci različitih stomatoloških područja različito orofacijalnu estetiku zbog različitog područja njihova interesa. Cilj je bio otkriti postoji li razlika u procjeni orofacijalne estetike među specijalistima u trima različitim područjima dentalne medicine, odnosno između specijalista protetike (S-protetika), parodontologije (S-Perio) i ortodoncije (S-Ortho). **Materijal i metode:** Ukupno 69 stručnjaka (23 u svakoj skupini) procijenilo je 60 jednakih fotografija donje trećine lica mladih zdravih ljudi s Angleovom klasom I i prirodnim zubima uz osmijeh. Štoviše, procijenjeni frontalni zubi na fotografijama morali su biti bez ikakvih restauracija. Procjene su učinjene s pomoću 7 od 8 stavki orofacijalne estetske ljestvice (OES) (procjena profila lica nije obavljena). Za ocjenjivanje je korištena Likertova ljestvica od 1 do 5 pri čemu je jedinica najlošiji rezultat, a petica najbolji. Srednje vrijednosti skupnih rezultata i svake OES-ove stavke izračunate su za svakog stručnjaka radi daljnje statističke analize. Primijenjeni su Kolmogorov-Smirnovljev test s jednim uzorkom, deskriptivna statistika, jednosmjerna ANOVA i Sheffeov post-hoc test. **Rezultati:** Specijalisti parodontologije značajno su najniže ocijenili svih 7 stavki vezanih uz orofacijalnu estetiku, a ocjene specijalista protetike bile su najviše (p < 0,05). **Zaključak:** Procjene orofacijalne estetike značajno se razlikuju između specijalista protetike, parodontologije i ortodoncije. Daljnje proučavanje potrebno je da bi se razjasnili čimbenici koji utječu na prosudbu, te da bi se doznalo može li specifično obrazovanje određene specijalnosti promijeniti ocjenu.

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