Effect of Removable Partial Dentures on Oral Health–Related Quality of Life in Subjects with Shortened Dental Arches: A 2-Center Cross-Sectional Study

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***Purpose*:** To assess the value of removable partial dentures (RPDs) in subjects with shortened dental arches (SDAs) with regard to quality of life. ***Materials and Methods*:** Subjects from 2 university dental centers (82 men, 78 women; mean age: 54 ± 18 years) were categorized into the following groups: (*1*) SDA with intact anterior regions (SDA-1, n = 44); (*2*) SDA and interrupted anterior region (SDA-2, n = 21); (*3*) SDA (intact anterior region) extended with distal-extension RPD (RPD-1, n = 25); (*4*) subjects with interrupted SDA and interrupted anterior region treated with RPD (RPD-2, n = 32); or (*5*) complete dental arches (CDA, n = 38) as a control. All subjects underwent a short clinical examination and completed 2 structured questionnaires: the Oral Health Impact Profile (OHIP-49) and the Short-Form Health Survey (SF-36). Recorded clinical variables included: teeth present (yes/no), replacement by RPD (yes/no), and number of occlusal units. Age-dependent outcomes were adjusted to outcomes for the age of 60 years. Linear regression models were used to assess differences between the groups. ***Results*:** Reliability and validity were good for all subscales. For OHIP, the investigation groups had significantly higher scores (more complaints) than CDA for the subscales "functional limitation," "psychologic discomfort," and "physical disability." Of the 4 investigation groups, SDA-1 subjects had the lowest mean scores. SF-36 scores showed less prominent and less conclusive differences between investigation groups and CDA subjects. SDA-2 subjects showed worse health, with significantly lower scores than RPD-2 subjects for "vitality," "social function," and "mental health." For pure SDA subjects (SDA-1) there was a significant positive effect for "number of occlusal units" in 5 of the OHIP subscales and 2 of the SF-36 subscales. ***Conclusion*:** From a quality-of-life perspective, patients with SDAs perceive benefits from RPDs only if anterior teeth replacements are included. In contrast, in subjects with uninterrupted SDAs, where only posterior teeth were replaced by distal-extension RPDs, such benefits could not be demonstrated. *Int J Prosthodont 2008;21:524–530.*

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Partial edentulism is a chronic condition. There is no curative therapy available at this time; however, symptomatic treatment by means of replacement of absent teeth is applied routinely. This treatment is comprised of fixed or removable partial dentures. For a large part of the population, only replacement with removable dentures is affordable, especially when greater numbers of teeth have to be replaced. Whereas removable dentures usually improve the normative clinical condition of individuals, as externally assessed, some subjects seem not to benefit from this treatment. It has been proposed not to extend shortened dental arches (SDAs) with occlusion up to the second premolars.[1,2] Moreover, clinical studies have demonstrated that restoration with removable partial dentures

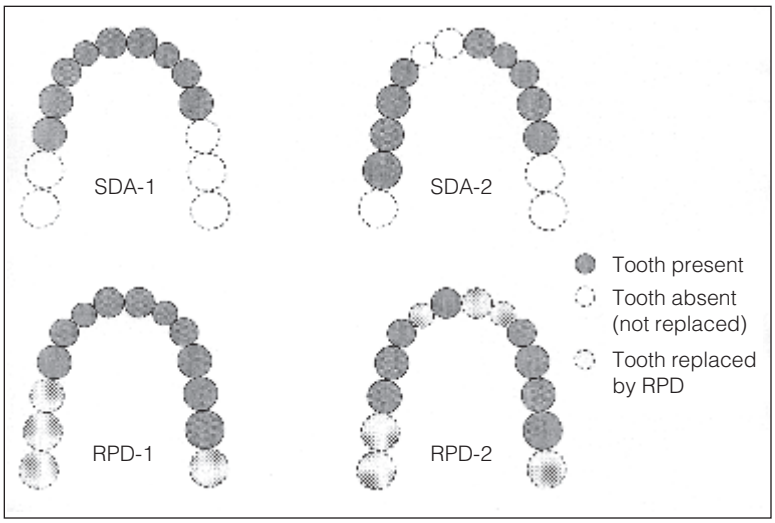

Fig 1 Schematic representation of examples of SDAs in terms of present, absent, and replaced teeth in the 4 investigation groups.

(RPDs) might have adverse effects on the remaining dentition. Therefore, great attention should be paid by clinicians and technicians to RPD designs that minimize the risks of plaque accumulation and tissue injury, [3,4] and by patients to meticulous hygiene of both the oral cavity and dentures.[5] Furthermore, it has been shown that in subjects with SDAs, oral comfort was comparable between groups of subjects restored with distal-extension RPDs and those without.[6] It is therefore important to determine at what point these appliances become necessary as determined by functional, psychologic, and social demands of patients. This will help prevent the fabrication of dental prostheses that are unlikely to benefit patients.

Both specific (Oral Health Impact Profile [OHIP]) and generic (Short-Form Health Survey [SF-36]) instruments have been described to assess the impact of dental conditions on oral health–related quality of life.[7–11] These instruments have also been used to assess treatment outcomes with complete and partial dentures.[12,13] A pilot study comparing a specific SDA treatment (ie, fixed reconstruction of remaining dentition up to second premolars) with SDAs extended with RPDs suggests no differences between these therapies in terms of OHIP outcomes.[14] Furthermore, quality of life was assessed for subjects with implant-supported dentures, conventional RPDs, and no tooth replacement in distal-extension–type unilateral mandibular edentulism.[15]

The purpose of the present cross-sectional study was to quantify the impact of the SDA condition on oral health–related quality of life and to quantify the value of RPDs with regard to quality of life as assessed by the OHIP and SF-36 questionnaires. The outcomes are compared to those of complete dental arches (CDAs) as a control. The null hypothesis was that there is no difference in oral health–related quality of life between subjects with SDAs, subjects with SDAs restored with RPDs, and subjects with CDAs. Consequently, it is hypothesized that RPDs do not add value in SDAs.

Materials and Methods

Sample Construction

This nonrandomized cross-sectional clinical survey was conducted between January 2001 and April 2005 at the Department of Prosthodontics, University of Michigan School of Dentistry, and the Department of Endodontics, Prosthodontics, and Restorative Dentistry, Baltimore College of Dental Surgery. Identified partially edentulous and completely dentate subjects visiting the patient-admitting clinics in both schools of dentistry were invited to participate in this clinical study. All subjects were able to read and respond to a written questionnaire in English. The requirements of the Declaration of Helsinki (1989) for prospective clinical studies with humans (informed consent) and those of the ethics committees of the universities of Michigan and Maryland were met at enrollment. All subjects provided written, informed consent before participating in the study.

For this study, convenient groups of subjects, at least 18 years of age, were composed. The invited participants were assigned to one of the following groups (Fig 1): (*1*) subjects with SDAs with intact anterior regions (SDA-1 group); (*2*) subjects with SDAs and interrupted anterior regions (SDA-2 group); (*3*) subjects with SDAs (intact anterior region) restored with distal-extension RPDs (posterior replacement only; RPD-1 group); (*4*) subjects with interrupted SDAs and interrupted anterior regions treated with RPDs replacing posterior as well as anterior teeth (RPD-2 group); and (*5*) subjects with CDAs (CDA group).

Table 1 Age, Gender, and Dental Arch Characteristics for Each Group

Variable	SDA-1 (n = 44)	SDA-2 (n = 21)	RPD-1 (n = 25)	RPD-2 (n = 32)	CDA (n = 38)
Mean age (y) (SD)	57 (14)	57 (15)	69 (7)	62 (11)	32 (10)
% female	50	38	56	50	47
Mean no. (SD) of teeth present					
Maxilla	11.1 (1.7)	7.8 (2.3)	9.2 (2.9)	7.8 (3.5)	14.8 (0.8)
Mandible	10.7 (2.2)	9.0 (2.2)	9.0 (2.3)	9.3 (2.4)	14.6 (0.9)
No. (%) of subjects with absent teeth (SDA) or with replacements (RPD)					
Maxilla only	5 (11)	0	9 (36)	14 (44)	–
Mandible only	3 (7)	0	6 (24)	4 (12)	–
Both arches	36 (82)	21 (100)	10 (40)	14 (44)	–
No. (%) of subjects with anterior interruptions					
Maxilla only	–	15 (70)	–	18 (56)	–
Mandible only	–	3 (15)	–	6 (19)	–
Both arches	–	3 (15)	–	8 (25)	–
Mean no. (SD) of absent anterior teeth					
Maxilla	–	2.6 (1.2)	–	2.9 (1.5)	–
Mandible	–	2.0 (1.7)	–	2.2 (1.2)	–
Both arches	–	Max: 3.7 (0.6); Mand: 2.0 (1.7)	–	Max: 2.8 (1.5); Mand: 3.0 (1.2)	–

Data Collection

Once subjects entered the study, they underwent a short clinical examination and were invited to fill out a structured questionnaire. The clinical examination was carried out by one of two calibrated prosthodontists (first and second authors).

One hundred ninety-six subjects agreed to participate in the study. Complete data sets could be obtained from 160 subjects (82 men and 78 women). Subjects with incomplete data sets (n = 36) were excluded. Age, gender, and dental arch characteristics of each group are presented in Table 1. The mean numbers of teeth indicate that subjects with moderately (absent molar support) as well as with severely SDAs (absent molar and premolar support) were included.

The clinical variables recorded included: teeth present (yes/no; teeth replaced by fixed pontics or by implant-supported crowns were considered present); absent teeth replaced by RPD (yes/no); and number of occlusal units (pairs of occluding posterior teeth).

The structured questionnaire comprised the OHIP-49 questionnaire and the Medical Outcomes Study (MOS) SF-36.[7,8] OHIP items were scored using a 5-point Likert scale (from 0 = never to 4 = very often) and evaluated for each of the 7 OHIP subscales.[7] The MOS SF-36 was constructed to assess general health status in clinical studies.[8] The SF items were scored using 2- to 6-point scales. Normalization was carried out following the algorithm published in the SF-36 manuals, and scores of the 8 SF-36 subscales were evaluated. [8,9] Examples of topics of inquiry in the subscales of OHIP and SF-36 are listed in Table 2.

Statistical Analysis

Before the data were analyzed, the internal consistency of the OHIP and SF-36 subscales was assessed by means of factor analyses and Cronbach alpha statistics. A second step was taken to detect possible influences of age on the dependent variables. In case of age dependence, the data were adjusted to determine outcomes for eligible participants at 60 years of age. Correction for gender was applied as a standard procedure for the subscales. Linear regression models were used to assess differences between the groups. Power statistics were applied for group comparisons relevant for testing the hypothesis, namely SDA-1 versus CDA, SDA-2 versus CDA, SDA-1 versus RPD-1, SDA-2 versus RPD-2, and SDA-1 versus SDA-2. Additionally, for subjects with pure SDAs (SDA-1 group), the effects of (*1*) number and (*2*) location (unilaterally versus bilaterally) of occlusal units on OHIP and SF-36 outcomes were analyzed in a regression model that also included age and gender. The statistical program used was SAS 9.1 (SAS Institute).

Results

The factor analyses revealed that the OHIP and SF-36 item outcomes matched with the subscales. Cronbach alphas ranged from .82 to .97 for OHIP subscales and from .80 to .94 for SF-36 subscales. Both tests indicate good internal consistency for this sample.

Table 2 Examples of Items Investigated in the Subscales of OHIP and SF-36

OHIP	SF-36
- Functional limitation: chewing, speaking, esthetics - Physical pain: toothache, sore jaw - Psychologic discomfort: worrying, feeling uncomfortable - Physical disability: avoiding smiling, unclear speech - Psychologic disability: feeling upset, feeling embarrassed - Social disability: avoiding going out, irritable - Handicap: unable to enjoy, unable to function	- Physical function: activities (bathing, dressing) - Role physical: problems with work - Bodily pain: incidence, severity of pain - General health: getting worse, incidence of sickness - Vitality: having energy, feeling tired - Social functioning: interference with social activities because of emotional problems - Role emotional: interference with work or activities because of emotional problems - Mental health: feeling nervous, feeling happy

Table 3 Mean Scores (SDs) on the Questions Within Each OHIP Subscale for the Investigated Groups After Correction for Age

OHIP subscale	SDA-1	SDA-2	RPD-1	RPD-2	CDA	Significant differences between groups*	*P*
Functional limitation†	1.2 (0.2)	1.9 (0.2)	1.5 (0.3)	1.4 (0.2)‡	0.6 (0.1)	All groups > CDA SDA-1 and RPD-2 < SDA-2	< .01
Physical pain†	0.9 (0.3)	1.5 (0.9)‡	1.4 (0.8)	1.0 (0.4)	0.6 (0.1)	SDA-2, RPD-1, and RPD-2 > CDA SDA-1 < SDA-2 and RPD-1 RPD-2 <SDA-2	< .05
Psychologic discomfort	1.4 (0.2)	1.7 (0.3)‡	1.7 (0.4)	1.7 (0.3)‡	0.7 (0.2)	All groups > CDA	< .05
Physical disability	0.5 (0.2)	1.3 (0.2)‡	1.0 (0.3)	1.1 (0.2)‡	0.2 (0.1)	All groups > CDA SDA-1 < SDA-2 and RPD-2	< .05
Psychologic disability†	0.6 (0.2)	1.2 (0.2)‡	0.8 (0.3)	0.9 (0.2)‡	0.3 (0.1)	SDA-2 and RPD-2 > CDA SDA-1 < SDA-2	< .001
Social disability	0.3 (0.3)	0.7 (0.3)‡	0.3 (0.3)	0.5 (0.3)‡	0.2 (0.3)	SDA-1 < SDA-2	< .01
Handicap	0.4 (0.3)	0.8 (0.3)‡	0.8 (0.4)	0.4 (0.3)	0.5 (0.3)	SDA-1 < SDA-2	< .05

Scores range from 0 to 4; a high score indicates more complaints.
*Comparisons between groups that are not mentioned did not differ significantly.
†Significant gender effect.
‡Significant negative age effect, meaning that older subjects reported fewer complaints.

Table 4 Mean Scores (SDs) for SF-36 Subscales for the Investigated Groups After Correction for Age

SF-36 subscale	SDA-1	SDA-2	RPD-1	RPD-2	CDA	Significant differences between groups*	*P*
Physical function	79.8 (5.4) ‡	75.0 (6.7)	79.0 (8.7)	85.9 (5.7)	92.3 (4.3)	SDA-1 and SDA-2 < CDA	< .05
Role physical	79.0 (18.5)	71.1 (19.4)	74.5 (19.1)	82.3 (18.7)	38.5 (18.0) ‡	SDA-1 and RPD-2 > CDA	< .05
Bodily pain	73.0 (5.5)	66.3 (6.7)	66.2 (6.4)	79.2 (5.9)	81.6 (4.4)	SDA-2 and RPD-1 < CDA	< .05
General health†	76.3 (3.7)	71.7 (4.6)	73.1 (4.3)	77.7 (3.9)	71.8 (2.9)	None	–
Vitality†	65.5 (4.2)	59.3 (5.7)	67.7 (5.3)	71.8 (4.9)	67.5 (3.7)	SDA-2 < RPD-2	< .05
Social function	73.3 (9.7)	68.4 (10.2)	70.6 (10.0)	79.5 (9.9)	63.1 (9.4) ‡	SDA-2 < RPD-2	< .05
Role emotional	80.2 (18.1)	65.9 (19.1)	81.9 (18.7)	86.3 (18.4)	53.4 (17.6) ‡	None	-
Mental health	81.6 (4.0)	72.0 (4.3)	79.5 (4.0)	84.0 (3.7)	77.6 (2.8)	SDA-2 < SDA-1 and RPD-2	< .05

Scores range from 0 to 100; a high score indicates better health, or, for "bodily pain," less pain.
*Comparisons between groups that are not mentioned do not differ significantly.
†Significant gender effect.
‡Significant negative age effect, meaning the older the subject the worse health.

Age and Gender Effects

For a number of subscales, significant age effects were found for some of the groups in OHIP (Table 3) and in SF-36 (Table 4). The scores of these groups' subscales were adjusted accordingly. For both the OHIP and the SF-36, all significant age effects were negative, meaning the older the subject, the lower the scores (fewer complaints in OHIP, worse health in SF-36). A significantly positive gender effect was found for the OHIP subscales "functional limitation," "physical pain," and "psychologic discomfort;" more complaints were cited by women than by men. The SF-36 subscales "general health" and "vitality" showed a significant negative gender effect, indicating worse health in women.

Table 5 Group Comparisons* with Probability ≤ 80% to Detect Significant Subscale Differences

Instrument/comparisons	Subscale	Probability to detect significant differences
OHIP		
SDA-1 versus RPD-1	Physical pain	.68
	Psychologic disability	.63
SDA-2 versus RPD-2	Physical pain	.54
	Social disability	.60
SDA-1 versus SDA-2	Physical pain	.72
SF-36		
SDA-1 versus CDA	Vitality	.63
SDA-2 versus CDA	Social functioning	.69
	Role emotional	.54
SDA-1 versus RPD-1	General health	.65
	Vitality	.73
	Mental health	.66
SDA-2 versus RPD-2	Role physical	.67
SDA-1 versus SDA-2	Physical functioning	.61
	Social functioning	.71
	Role emotional	.59

*Comparisons: SDA-1 versus CDA, SDA-2 versus CDA, SDA-1 versus RPD-1, SDA-2 versus RPD-2, and SDA-1 versus SDA-2.

Table 6 OHIP and SF-36 Subscale Scores for the SDA-1 group (n = 44) After Correction for Age, Gender, and No. of Occlusal Units (OU)

Subscale	Mean score for 0 OU* (SD)	Δ per OU* (SD)	*P*
OHIP subscales			
Functional limitation	2.0 (0.3)	-0.2 (0.1)	.004
Physical pain	1.6 (0.2)	-0.2 (0.1)	.001
Psychologic discomfort	2.5 (0.4)	-0.3 (0.1)	.003
Physical disability	2.3 (0.2)	-0.2 (0.1)	.004
Psychologic disability	1.2 (0.3)	-0.2 (0.1)	.04
Social disability	0.5 (0.3)	-0.1 (0.1)	NS
Handicap	0.7 (0.2)	-0.1 (0.1)	NS
SF-36 subscales			
Physical function	67.8 (9.3)	3.8 (2.2)	NS
Role physical	66.7 (16.1)	2.4 (3.7)	NS
Bodily pain	55.6 (8.9)	5.1 (2.1)	.02
General health	63.4 (5.8)	3.6 (1.4)	.01
Vitality	61.4 (7.3)	2.9 (1.7)	NS
Social function	62.8 (8.6)	2.6 (2.0)	NS
Role emotional	64.6 (14.5)	5.1 (3.4)	NS
Mental health	80.6 (5.8)	0.6 (1.3)	NS

Mean scores represent SDAs with 0 OU; Δ per OU represents estimated difference from mean score per extra OU.
*Occlusal units = pairs of occluding posterior teeth.

Results of the OHIP Questionnaire

With respect to OHIP, the investigation groups had significantly higher scores (more complaints) than the control group (CDA) for the subscales "functional limitation," "psychologic discomfort," and "physical disability" (Table 3). The SDA-2, RPD-1, and RPD-2 groups had higher scores for "physical pain" than the control group. In addition, the SDA-2 (SDAs with anterior interruption) and RPD-2 (interrupted SDAs with RPDs replacing the absent teeth) subjects had higher scores for "psychologic disability" than CDA subjects.

In general, within the 4 investigation groups, SDA-1 had the lowest mean scores (fewest complaints). For all subscales, except for "psychologic discomfort," the SDA-1 group scored significantly lower than the SDA-2 group. The RPD-1 group (distal-extension RPDs in posterior regions) did not differ significantly from the SDA-1 group, with the exception of a significantly higher score for "physical pain," indicating a greater negative oral health impact for this subscale. The relatively large standard deviations for this subscale for SDA-2 and RPD-1 patients indicate large individual variations. Mean scores of the SDA-2 group were highest for all subscales. Replacement of teeth in both posterior and anterior regions (as in the RPD-2 group) seems to have a positive effect on "functional limitation" and on "physical pain" compared to SDA-2. For these subscales, the RPD-2 group showed significantly lower scores (fewer complaints).

Power analysis revealed that out of 35 comparisons (5 groups × 7 subscales) the ability to detect significant differences (if existing) was lower than 80% in 5 cases (14%). For example, power appeared to be insufficient for "physical pain" in the comparison SDA-1 versus RPD-1 (power = .68; Table 5).

Evaluation of the SF-36 Questionnaire

General comparison between the investigation groups and the CDA group with respect to SF-36 shows differences that are less prominent and less conclusive than for OHIP. Only for the subscales "physical function," "role physical," and "bodily pain" did some investigation groups show significantly different scores versus the CDA group; however, these differences do not clearly indicate better health for the latter group. Among the investigation groups, SDA-2 subjects showed worse health. SDA-2 scored significantly lower than RPD-2 for "vitality," "social function," and "mental health," indicating a positive effect for anterior tooth replacement.

Power analysis of SF-36 comparisons showed that the probability to detect significant differences was lower than 80% in 10 of 40 comparisons (5 groups × 8 subscales) (Table 5). For the pure SDA group (SDA-1), the regression analysis revealed a significant effect for "number of occlusal units" on outcome in 5 of the 7 subscales of the OHIP and 2 of the 8 subscales of the SF-36 (Table 6). The greatest impact was for the SDA condition (0 occlusal units); each extra occluding pair decreased the impact. For example, the mean score for "functional limitation" with 0 occlusal units is 2.0; for 1 occlusal unit, it is 1.8; and for 4 occlusal units the mean score is 1.2. For OHIP, the positive effect (decrease of

mean score) per occlusal unit extra ranged from 9% ("physical disability") to 17% ("psychologic disability"). The effect on SF-36 outcomes was less pronounced (5% to 9% difference per extra occlusal unit). It appeared that there were no significant differences (*P* values for subscales ranged from .47 to .98) in outcomes between unilateral (n = 12) and bilateral (n = 32) pure SDAs. Differences on OHIP subscales ranged from 8% fewer complaints to 4% more complaints for unilateral SDAs; outcome differences for SF-36 subscales varied from −6% to +12% perceived better health.

Discussion

The unequal age distribution among the groups might have affected this study. In this convenient sample, taken from the clinics of 2 dental schools, it appeared that elder subjects with CDAs were underrepresented. Therefore, when age effects were detected, outcomes were compared after correction for age. Remarkably, for OHIP, age effects were found in the SDA-2 and RPD-2 groups only. These age effects were all negative, meaning that the older the patient, the fewer complaints were reported. The latter is in accordance with results from epidemiologic surveys performed in Australia and the United Kingdom.[16] It is possible that adaptation to oral conditions is the reason for better outcomes. Unfortunately, information about the duration of the dental status was not available to verify this assumption. The absence of age effects for the other groups cannot be explained.

Three of the 4 detected age-related effects in the SF-36 subscales were found in the CDA group. The age effects were all negative, indicating a perception of worse health. The strikingly low score for "role physical" for the CDA group might be a result of the fact that in this subscale all questions are related to results of working activities rather than directly to subjects' health. Work-related problems were probably more burdensome for the relatively young CDA subjects than for the older participants in the investigation groups.

With respect to the hypothesis of this study, significant oral health impact of an SDA condition was demonstrated by 3 OHIP subscales ("functional limitation," "psychologic discomfort," and "physical disability"). However, this impact appeared to be relatively slight for uninterrupted SDAs (Table 3) and, moreover, was dependent on the number of occlusal units: The more occlusal units present, the smaller the impact (Table 6). It has been shown previously that objective chewing capacity is directly related to the number of occlusal units.[17] A study among elderly patients showed an association between number of occlusal units and "role functioning," but there were no relationships to other quality-of-life (SF-20) dimensions.[18] OHIP outcomes of the present study indicate a direct impact of SDA conditions on functional dimensions, as well as an impact on psychologic and social dimensions, although this is less clear. As explained by others, this means that the impact of loss of teeth on quality of life is more complex than functional parameters would indicate.[19] Comparison of OHIP outcomes in the SDA-1 and RPD-1 groups indicates no added value for distal-extension RPDs, even though this study had a 80% chance of seeing extra value (if existing) for most subscales. For those subscales without sufficient power to demonstrate extra value (Table 6), the latter was negative (higher impact; Table 3).

This confirms the satisfaction outcome in a clinical trial comparing fixed and removable extensions of SDAs in the United Kingdom.[18] Similar quality-of-life scores for unilateral SDAs treated with RPDs or left untreated have been reported.[15] Subjects with unilateral SDAs might find sufficient functional compensation by chewing on the longer side. The present study did not reveal different outcomes between unilaterally and bilaterally shortened arches. Because of the small number of subjects in these categories, the power of the regression analysis was insufficient to deal with possible confounding between location (unilateral versus bilateral) and number of occlusal units.

Conditions in which anterior teeth were absent and not replaced (SDA-2 group) had the highest impact. It seems remarkable that no difference was seen for "psychologic discomfort" between SDAs without (SDA-1) and with absent anterior teeth (SDA-2). However, if subjects in the latter group had experienced serious psychologic discomfort, treatment would likely have been applied. If treated, they would belong to either the SDA-1 group (if a fixed anterior RPD had been made) or to the RPD-2 group (if an RPD with distal extension had been made). Comparison of the SDA-2 and RPD-2 groups indicates an added value for RPDs regarding oral health impact in such dental arch patterns. However, this was only statistically significant for 2 OHIP subscales ("functional limitation" and "physical pain") and 3 SF-36 subscales ("vitality," "social function," and "mental health").

There seem to be some associations between the presence, absence, and replacement of teeth with indicators of perceived health in the investigated sample. However, as in other reports,[10,11,19] the SF-36 seems to be a less sensitive questionnaire to detect differences in oral health–related quality-of-life aspects regarding dental status than is the OHIP. This is reflected by the relatively high number of SF-36 comparisons with insufficient power compared to the OHIP comparisons.

There is broad consensus that OHIP and SF-36 can be used to compare groups.[20] However, there is also consensus that these instruments are less useful for the assessment of individual impacts or clinical decision-making (ie, therapeutic intervention).[21,22]

Conclusion

This study indicates from a quality-of-life perspective that patients perceive benefits from removable partial denture treatment in shortened dental arches only if anterior teeth are replaced. In contrast, for subjects with uninterrupted shortened dental arches in which only posterior teeth were replaced by distal-extension removable partial dentures, such benefits could not be demonstrated.

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Literature Abstract

Risk factors of oral candidosis: A twofold approach of study by fuzzy logic and traditional statistic

Eighty-nine patients with oral candidosis (OC) clinically and microbiologically diagnosed and 98 healthy subjects were assessed for risk factors associated with OC. The risk factors included: age, gender, smoking habits, hyposalivation/xerostomia, denture wearing, antibiotic therapy, local or systemic corticosteroid therapy, diabetes mellitus, other endocrine disorders, non-HIV related immunodeficiency, and previous malignancy. The most common predisposing factors for OC onset and its chronic status were analyzed by means of the fuzzy logic (FL) approach and statistical traditional methodology (STM). Associations were found with respect to denture wearing and hyposalivation/xerostomia, and to age and female gender. Tobacco smoking was not found to be a risk factor. Elderly patients were found to be more likely than younger persons to be predisposed to OC, especially when they had a denture or were suffering from hyposalivation/xerostomia, as they often take drugs likely to cause xerostomia and are more likely than younger persons to wear dentures. Moreover, poor denture hygiene is common and further contributes to diffusion of denture stomatitis, such that physical cleaning of dentures is probably the most effective means of preventing or lessening the development of this oral infection. This paper provides data to help practitioners in the decision-making model to ?nalize their preventative strategies of OC for the geriatric population.

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