Oral health impact profile and prosthetic condition in edentulous patients rehabilitated with implant-supported overdentures and fixed prostheses

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Abstract: The complexity of rehabilitation for totally edentulous patients makes it necessary to devise treatment strategies that meet the patients' expectations in terms of function, esthetic, psychological, and social aspects. The aim of this study was to i) compare the satisfaction of edentulous patients who had been rehabilitated with implant-supported overdentures and fixed prostheses in the mandible, and ii) assess the technical aspects of the prostheses in relation to patient satisfaction. This was a cross-sectional study involving 30 patients, 15 of whom had been rehabilitated with implant-supported overdentures and 15 who had been treated with fixed prostheses. The patients answered the OHIP-EDENT questionnaire, validated for the Brazilian Portuguese language, to assess satisfaction. Also, patients underwent clinical examination to assess the condition of their prostheses. Statistical analysis using the Mann-Whitney *U*-test revealed no significant differences in satisfaction between patients with overdentures and those with fixed prostheses. Likewise, Fisher's exact test demonstrated no significant differences in patient satisfaction concerning the condition of the prostheses as evaluated by the prosthodontist. It was concluded that both types of prostheses were perceived as being equally satisfactory by edentulous patients, and that the condition of the prostheses did not influence individual satisfaction in

terms of rehabilitation. (J Oral Sci 51, 535-543, 2009)

Keywords: jaw; edentulous; patient; satisfaction; dental prosthesis; implant-supported.

Introduction

Inappropriate treatment of edentulism using total prostheses may lead to not only impaired buccal function and increased alveolar bone loss, but also increased patient self-consciousness (1,2). Assessments of rehabilitation treatments must consider patients' opinions as a variable of treatment success (3). Patients often express dissatisfaction with their lower arch dentures (4), and complaints include reduced retention stability of conventional dentures, and difficulties with mastication and verbal communication, all due to bone resorption of the alveolar process with time (5).

The development of dental implants in clinical dentistry must consider the needs of patients in terms of comfort, esthetics, prosthesis stability and retention, verbal communication and mastication. Much research has focused on the success or failure of osseointegrated implants from a biological standpoint. However, few studies have addressed prosthetic aspects and the perception of treatment outcomes by patients (6-8).

A patient's perception of his or her own oral health is very important. Oral health, as related to quality of life (OHRQoL – Oral Health-Related Quality of Life), characterizes an individual's perception of buccal health, and can be used as an indicator of the advantages of prosthetic rehabilitation strategies (9,10). The Oral Health Impact Profile (OHIP) questionnaire is one of the most

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technically sophisticated instruments for assessment of OHRQoL (11). The OHIP was developed in Australia by Slade and Spencer (12) in 1994, and several versions of the tool have been developed, one of which was recently translated into Brazilian Portuguese (13). The tool comprises 49 questions distributed into seven sub-scales. However, the questionnaire is considered too far-reaching by some, and a number of studies have explored the possibility of downsizing it, without impairing its scope of application. Among the short versions that have been developed, such as the OHIP-14, the OHIP-DENT is seen as the most appropriate for edentulous patients, as it presents a set of specific questions. The tool detects the impact of oral health on the quality of life of patients with total prostheses, before and after they have received them (14).

Satisfaction also depends on technical and patient-related variables. Researchers have argued that the evaluation of treatment success should be established by each individual patient, as opposed to traditional clinical evaluation methods (15). Despite the fact that patient well-being is always the main aim of the treatment approach adopted, clinical practice adopts predetermined criteria for treatment assessment, and these criteria do not consider the requirements and attitudes of individual patients (16).

The present study was conducted to compare the satisfaction of edentulous individuals treated with implant-supported overdentures and fixed prostheses, and to assess the technical condition of these treatments in terms of patient satisfaction.

Methods

Sample

Patients were selected after an analysis of files detailing treatments performed between 1998 and 2005, kept by the School of Dentistry, Lutheran University of Brazil (ULBRA). Edentulous patients treated with lower arch implant-supported overdentures (removable) or fixed prostheses, installed at least two years before and in the presence of an antagonist agent (natural tooth or prosthesis) were located and asked to take part in the study. Of the 37 patients selected, 30 (mean age 63.78 years) were effectively examined. Fifteen patients had been treated with an overdenture and 15 with a fixed prosthesis.

This study was approved by the Committee for Ethics in Research, Lutheran University of Brazil. All patients signed a written consent form.

Measurements

Questionnaire

Patient satisfaction was assessed using the OHIP-EDENT

(Oral Health Impact Profile in Edentulous Adults) questionnaire. In 2007, Souza et al. (17) translated the OHIP-EDENT into Portuguese, and this version was then back-translated into English. Each question was evaluated to make sure no change in meaning had been generated in the Portuguese translation. Also, the reliability of the questionnaire was evaluated using internal consistency analysis (Cronbach's alpha coefficient), which yielded an index validated for the Portuguese language spoken in Brazil. The OHIP-EDENT is a 19-question survey, grouped as seven subscales or domains: functional limitation, physical pain, psychological discomfort, physical disability; psychological disability, social disability, and handicap.

This tool detects the impact of oral health on the quality of life of patients who wear total prostheses (14). It is specific to edentulous patients and presents questions addressing masticatory capacity, pleasure in eating, level of comfort and assuredness while wearing the prosthesis, and relationship problems, among others.

The questionnaire (annex 1) was applied by one examiner only. The individuals expressed satisfaction concerning the prosthesis, answering questions such as: "Have you had difficulty chewing any foods because of problems with your teeth, mouth or dentures?"; "Have you avoided going out because of problems with your teeth, mouth or dentures?"; and "Have you been self conscious because of your teeth, mouth or dentures". In order to make it easier for the patient, a choice of only three answers was given: (0) = never; (1) = sometimes; (2) = almost always, unlike the English version of the questionnaire, which gives a choice of five answers. The lowest scores represent a satisfactory perception of an individual's oral conditions, and therefore higher satisfaction and better quality of life. The patients were also asked about their age and time they had been wearing the prosthesis.

Clinical examination

After the patient had answered the questionnaire, one examiner assessed the technical condition of each individual's prosthesis.

The following aspects related to overdenture rehabilitation were evaluated (annex 2):

- The condition of the acrylic portion of the teeth and of the base, classified as "requiring intervention" or "not requiring intervention" (18);
- Base adaptation, classified as "adapted" or "not adapted" (19);
- Occlusion, classified as "satisfactory" or "unsatisfactory" (20);
- Retention, classified as "excellent", "good" or "poor" (18);
- Stability, classified as "excellent", "good", or "poor" (20).

Annex 1 The OHIP-EDENT questionnaire (English version)

Functional limitation

- 1- Have you had difficulty chewing any foods because of problems with your teeth, mouth or dentures?
- 2- Have you had food catching in your teeth or dentures?
- 3- Have you felt that your dentures have not been fitting properly?

Physical pain

- 4- Have you had painful aching in your mouth?
- 5- Have you found it uncomfortable to eat any foods because of problems with your teeth, mouth or dentures?
- 6- Have you had sore spots in your mouth?
- 7- Have you had uncomfortable dentures?

Psychological discomfort

- 8- Have you been worried by dental problems?
- 9- Have you been self conscious because of your teeth, mouth or dentures?

Physical disability

- 10- Have you had to avoid eating some foods because of problems with your teeth, mouth or dentures?
- 11- Have you been unable to eat with your dentures because of problems with them?
- 12- Have you had to interrupt meals because of problems with your teeth, mouth or dentures?

Psychological disability

- 13- Have you been upset because of problems with your teeth, mouth or dentures?
- 14- Have you been a bit embarrassed because of problems with your teeth, mouth or dentures?

Social disability

- 15- Have you avoided going out because of problems with your teeth, mouth or dentures?
- 16- Have you been less tolerant of your spouse or family because of problems with your teeth, mouth or dentures?
- 17- Have you been a bit irritable with other people because of problems with your teeth, mouth or dentures?

Handicap

- 18- Have you been unable to enjoy other people's company as much because of problems with your teeth, mouth or dentures?
- 19- Have you felt that life in general was less satisfying because of problems with your teeth, mouth or dentures?

Annex 2 Clinical examination of the prosthesis' technical condition, by the prosthodontist

OVERDENTURE

- Acrylic portion: Teeth ( ) requiring intervention ( ) not requiring intervention
 Base ( ) requiring intervention ( ) not requiring intervention
 Base adaptation: ( ) adapted ( ) not adapted
 Occlusion: ( ) satisfactory ( ) unsatisfactory
 Retention: ( ) excellent ( ) good ( ) poor
 Stability: ( ) excellent ( ) good ( ) poor

FIXED

- Acrylic portion: Teeth ( ) requiring intervention ( ) not requiring intervention
 Base ( ) requiring intervention ( ) not requiring intervention
 Bar (clinical and radiological evaluation): ( ) fractured ( ) unfractured
 Screw fixation : ( ) loose ( ) tight
 Sealing material for the fixing screw: ( ) satisfactory ( ) unsatisfactory
 Occlusion: ( ) satisfactory ( ) unsatisfactory

The following aspects related to fixed rehabilitation were evaluated (annex 2):

- The condition of the acrylic portion of the teeth and of the base, classified as "requiring intervention" or "not requiring intervention" (18);
- The bar, classified as "fractured" or "unfractured" (assessed by clinical examination and panoramic

radiography) (1);

- Screw fixation, classified as "loose" or "tight" (1);
- The sealing material for the fixing screw, classified as "satisfactory", or "unsatisfactory" (21);
- Occlusion, classified as "satisfactory" or "unsatisfactory" (20).

Radiological examination

A radiological examination was performed in patients with fixed rehabilitation (to assess the bar).

After the questionnaire had been answered and the clinical and radiological examinations of the prosthesis had been completed, patients were referred for an appointment for prosthesis maintenance.

Statistical analysis

Initially, the differences between the study groups (overdenture and protocol-type implants) were evaluated using Student's *t*-test for parametrically distributed continuous variables (age, period for which prosthesis had been worn), the Mann-Whitney's *U*-test for non-parametrically distributed continuous variables (OHIP-EDENT score), and the chi-squared test or Fisher's exact test for category variables (categorized OHIP-EDENT score: no complaint, or one or more complaints on the OHIP scale, and sex) respectively.

Subsequently, the variable "categorized OHIP-EDENT score" was used as the outcome, and the occurrence of differences in prosthesis conditions between patients who did not report and those who reported one or more complaints on the OHIP-EDENT scale was verified using Fisher's test. The analyses of the overdenture and fixed groups were conducted separately.

Pre- and trans-experiment intra-examiner reproducibility for the variables "condition of the acrylic portion of the teeth and base", "occlusion" (for overdentures and fixed prostheses), "base adaptation, retention, stability" (for overdentures), and "bar, screw fixation, sealing material for the fixing screw" (for fixed prostheses) were used to calculate the kappa coefficient.

The rejection value for the null hypothesis was $P \leq 0.05$. The SPSS version 12.0 software package (SPSS Inc., Chicago, USA) was used to conduct the statistical analysis.

Results

The characteristics of the sample studied in terms of the type of prosthesis are presented in Table 1. The sample comprised 10 men and 20 women, with a mean age of 63 years (± 12.0 years). No statistically significant differences were observed for sex, age, or period for which prostheses had been worn. The mean OHIP-EDENT score for the overdenture group was 1.13 (± 2.26), while that for the fixed prosthesis group was 2.13 (± 2.41). The difference was not statistically significant. Among the participants in the overdenture group, 33.3% reported one or more complaints in the OHIP-EDENT questionnaire, as compared to 60.0% of the fixed group. Although the participants in the fixed group reported complaints more often than those in the

Table 1 Characteristics of the sample studied in terms of the outcome of the prosthesis type

		Overdenture (<i>n</i> = 15)	Fixed (<i>n</i> = 15)	<i>P</i>
Sex	Male	4 (26.7%)	6 (40.0%)	0.35**
	Female	11 (73.3%)	9 (60.0%)	
Age	Years ($\pm$ SD)	62.9 ($\pm$ 9.30)	64.67($\pm$ 14.77)	0.69#
Prosthesis time	Years ($\pm$ SD)	2.80 ($\pm$ 1.42)	3.47 ($\pm$ 1.68)	0.25#
OHIP-EDENT (score)	Mean ($\pm$ SD)	1.13 ($\pm$ 2.26)	2.13 ($\pm$ 2.41)	0.15&
OHIP-EDENT (Categorical)	No complaint	10 (66.7%)	6 (40.0%)	0.15*
	1 or more complaints	5 (33.3%)	9 (60.0%)	

*Chi-squared test, ** Fisher's exact test, # Student's *t*-test for independent samples, & Mann-Whitney's *U*-test
SD = Standard deviation

Table 2 Clinical characteristics of the patients wearing overdentures in accordance with the categorical OHIP-EDENT (no complaint or one or more complaints)

		OHIP-EDENT		<i>P</i>
		0 complaint	1 or +complaints	
Adaptation to base	Adapted	7 (70.0%)	1 (20.0%)	0.1 *
	Not adapted	3 (30.0%)	4 (80.0%)	
Occlusion	Satisfactory	8 (80.0%)	5 (100%)	0.43*
	Not satisfactory	2 (20.0%)	0	
Retention	Excellent/Good	7 (70.0%)	5 (100%)	0.26*
	Poor	3 (30.0%)	0	
Stability	Excellent/Good	10 (100%)	3 (60.0%)	0.1*
	Poor	0	2 (40.0%)	

*Fisher's test

overdenture group (60.0% and 33.3%, respectively), the difference was not statistically significant.

The kappa coefficients for pre- and trans-experiment intra-examiner reproducibility for the variables of the clinical examination varied between 0.80 and 1.00 in both groups.

The prosthesis condition in the overdenture group, according to the categorical OHIP-EDENT outcome, is presented in Table 2. No significant difference was observed between patients who did not report complaints and those who reported one or more complaints on the OHIP-EDENT scale, concerning adaptation of the base, occlusion, retention or stability of the prostheses as assessed by a professional.

The conditions of the prostheses worn by the fixed group according to the categorical OHIP-EDENT outcome are presented in Table 3. No statistically significant difference was observed between patients who did not report complaints and those who reported one complaint or more on the OHIP-EDENT scale, concerning the acrylic portion of the teeth and of base, bar, screw fixation, sealing material for the screws, or occlusion of the prostheses as assessed by a prosthodontist.

Tables 4 and 5 show the descriptive analysis of the two groups for each question in the OHIP-EDENT, and Table 6 shows the descriptive analysis of both groups for each question of the individual questionnaire.

Discussion

In this study, satisfaction was determined using the OHIP-EDENT questionnaire (the Brazilian Portuguese version), which has been validated in the literature, to detect the impact of oral health on the quality of life of

patients with total prostheses (overdentures and fixed types), (17). The vast majority (82%) of previous studies that have reported the influence of prosthetic treatment on the quality of life of patients have used non-validated instruments to assess patient satisfaction (22).

Few studies have compared implant-supported overdentures and fixed prostheses. Generally, the conventional total prosthesis has been compared with one of these two types of total implant-supported prosthesis (23-25). Feine et al. (26) and Grandmont et al. (27) selected 15 patients, of whom 8 were initially treated with implant-supported fixed prostheses and 7 were given implant-supported overdentures (removable). After 2 months, patient perception of prosthesis utilization was assessed using the visual analogue scale (VAS) and the category scale (CAT), then the prostheses were changed and the procedures repeated. No statistically significant difference was observed between the two implant-supported prosthesis types. Several studies have shown that patients treated with implant-supported lower overdentures are more satisfied than those who wear conventional overdentures (3,28,29). A similar tendency has been observed for patients treated with fixed prostheses, where the majority were generally satisfied with this type of rehabilitation (1,2,30). Therefore, the present results are similar to those already reported, indicating that patients treated with implant-supported total prostheses, whether removable or fixed, are contented with the result, especially due to the fact that previously they had worn total conventional prostheses, which were ineffective in terms of retention, stability and support (5).

In terms of the assessment of prosthesis condition, patients and trained prosthodontists define success differently. The former characterize success in terms of

Table 3 Clinical characteristics of the patients wearing fixed prostheses in accordance with the categorical OHIP-EDENT (no complaints or one or more complaints)

		OHIP-EDENT		P
		0 complaint	1 or +complaints	
Acrylic portion of teeth	Requires intervention	0	2 (22.2%)	0.34*
	Does not require intervention	6 (100%)	7 (77.8%)	
Acrylic portion of base	Requires intervention	1 (16.7%)	0	0.4*
	Does not require intervention	5 (83.3%)	9 (100%)	
Bar	With fracture	0	1 (11.1%)	0.6*
	Without fracture	6 (100.0%)	8 (88.9%)	
Fixing of screws	Loose	1 (16.7%)	1 (11.1%)	0.66*
	Tight	5 (83.3%)	8 (88.9%)	
Sealing material	Satisfactory	4 (66.7%)	7 (77.8%)	0.54*
	Not satisfactory	2 (33.3%)	2 (22.2%)	
Occlusion	Satisfactory	6 (100.0%)	8 (88.9%)	0.6*
	Not satisfactory	0	1 (11.1%)	

*Fisher's test

Table 4 Descriptive analysis of each question of the Ohip-Edent in the fixed group

Question	Minimum	Maximum	Mean ($\pm$ SD)
1. Have you had difficulty chewing any foods because of problems with your teeth, mouth or dentures?	0.00	2.00	0.26 ($\pm$ 0.59)
2. Have you had food catching in your teeth or dentures?	0.00	2.00	0.53 ($\pm$ 0.63)
3. Have you felt that your dentures have not been fitting properly?	0.00	2.00	0.20 ($\pm$ 0.56)
4. Have you had painful aching in your mouth?	0.00	0.00	0.00 ($\pm$ 0.00)
5. Have you found it uncomfortable to eat any foods because of problems with your teeth, mouth or dentures?	0.00	0.00	0.00 ($\pm$ 0.00)
6. Have you had sore spots in your mouth?	0.00	0.00	0.00 ($\pm$ 0.00)
7. Have you had uncomfortable dentures?	0.00	0.00	0.00 ($\pm$ 0.00)
8. Have you been worried by dental problems?	0.00	0.00	0.00 ($\pm$ 0.00)
9. Have you been self conscious because of your teeth, mouth or dentures?	0.00	0.00	0.00 ($\pm$ 0.00)
10. Have you had to avoid eating some foods because of problems with your teeth, mouth or dentures?	0.00	1.00	0.06 ($\pm$ 0.25)
11. Have you been unable to eat with your dentures because of problems with them?	0.00	2.00	0.60 ($\pm$ 0.82)
12. Have you had to interrupt meals because of problems with your teeth, mouth or dentures?	0.00	2.00	0.33 ($\pm$ 0.72)
13. Have you been upset because of problems with your teeth, mouth or dentures?	0.00	1.00	0.06 ($\pm$ 0.25)
14. Have you been a bit embarrassed because of problems with your teeth, mouth or dentures?	0.00	0.00	0.00 ($\pm$ 0.00)
15. Have you avoided going out because of problems with your teeth, mouth or dentures?	0.00	0.00	0.00 ($\pm$ 0.00)
16. Have you been less tolerant of your spouse or family because of problems with your teeth, mouth or dentures?	0.00	1.00	0.06 ($\pm$ 0.25)
17. Have you been a bit irritable with other people because of problems with your teeth, mouth or dentures?	0.00	0.00	0.00 ($\pm$ 0.00)
18. Have you been unable to enjoy other people's company as much because of problems with your teeth, mouth or dentures?	0.00	0.00	0.00 ($\pm$ 0.00)
19. Have you felt that life in general was less satisfying because of problems with your teeth, mouth or dentures?	0.00	0.00	0.00 ($\pm$ 0.00)

SD = Standard deviation

Table 5 Descriptive analysis of each question of the Ohip-Edent in the overdenture group

Question	Minimum	Maximum	Mean ($\pm$ SD)
1. Have you had difficulty chewing any foods because of problems with your teeth, mouth or dentures?	0.00	1.00	0.13 ($\pm$ 0.35)
2. Have you had food catching in your teeth or dentures?	0.00	1.00	0.20 ($\pm$ 0.41)
3. Have you felt that your dentures have not been fitting properly?	0.00	0.00	0.00 ($\pm$ 0.00)
4. Have you had painful aching in your mouth?	0.00	0.00	0.00 ($\pm$ 0.00)
5. Have you found it uncomfortable to eat any foods because of problems with your teeth, mouth or dentures?	0.00	0.00	0.00 ($\pm$ 0.00)
6. Have you had sore spots in your mouth?	0.00	0.00	0.00 ($\pm$ 0.00)
7. Have you had uncomfortable dentures?	0.00	0.00	0.00 ($\pm$ 0.00)
8. Have you been worried by dental problems?	0.00	1.00	0.13 ($\pm$ 0.35)
9. Have you been self conscious because of your teeth, mouth or dentures?	0.00	0.00	0.00 ($\pm$ 0.00)
10. Have you had to avoid eating some foods because of problems with your teeth, mouth or dentures?	0.00	0.00	0.00 ($\pm$ 0.00)
11. Have you been unable to eat with your dentures because of problems with them?	0.00	1.00	0.13 ($\pm$ 0.35)
12. Have you had to interrupt meals because of problems with your teeth, mouth or dentures?	0.00	1.00	0.13 ($\pm$ 0.35)
13. Have you been upset because of problems with your teeth, mouth or dentures?	0.00	1.00	0.06 ($\pm$ 0.25)
14. Have you been a bit embarrassed because of problems with your teeth, mouth or dentures?	0.00	0.00	0.00 ($\pm$ 0.00)
15. Have you avoided going out because of problems with your teeth, mouth or dentures?	0.00	0.00	0.00 ($\pm$ 0.00)
16. Have you been less tolerant of your spouse or family because of problems with your teeth, mouth or dentures?	0.00	2.00	0.13 ($\pm$ 0.51)
17. Have you been a bit irritable with other people because of problems with your teeth, mouth or dentures?	0.00	2.00	0.20 ($\pm$ 0.56)
18. Have you been unable to enjoy other people's company as much because of problems with your teeth, mouth or dentures?	0.00	0.00	0.00 ($\pm$ 0.00)
19. Have you felt that life in general was less satisfying because of problems with your teeth, mouth or dentures?	0.00	0.00	0.00 ($\pm$ 0.00)

SD = Standard deviation

Table 6 Descriptive analysis of each question of the Ohip-Edent in both groups

Question	Minimum	Maximum	Mean ($\pm$ SD)
1. Have you had difficulty chewing any foods because of problems with your teeth, mouth or dentures?	0.00	2.00	0.20 ($\pm$ 0.48)
2. Have you had food catching in your teeth or dentures?	0.00	2.00	0.36 ($\pm$ 0.55)
3. Have you felt that your dentures have not been fitting properly?	0.00	2.00	0.10 ($\pm$ 0.40)
4. Have you had painful aching in your mouth?	0.00	0.00	0.00 ($\pm$ 0.00)
5. Have you found it uncomfortable to eat any foods because of problems with your teeth, mouth or dentures?	0.00	0.00	0.00 ($\pm$ 0.00)
6. Have you had sore spots in your mouth?	0.00	0.00	0.00 ($\pm$ 0.00)
7. Have you had uncomfortable dentures?	0.00	0.00	0.00 ($\pm$ 0.00)
8. Have you been worried by dental problems?	0.00	1.00	0.06 ($\pm$ 0.25)
9. Have you been self conscious because of your teeth, mouth or dentures?	0.00	0.00	0.00 ($\pm$ 0.00)
10. Have you had to avoid eating some foods because of problems with your teeth, mouth or dentures?	0.00	1.00	0.03 ($\pm$ 0.18)
11. Have you been unable to eat with your dentures because of problems with them?	0.00	2.00	0.36 ($\pm$ 0.66)
12. Have you had to interrupt meals because of problems with your teeth, mouth or dentures?	0.00	2.00	0.23 ($\pm$ 0.56)
13. Have you been upset because of problems with your teeth, mouth or dentures?	0.00	1.00	0.06 ($\pm$ 0.25)
14. Have you been a bit embarrassed because of problems with your teeth, mouth or dentures?	0.00	0.00	0.00 ($\pm$ 0.00)
15. Have you avoided going out because of problems with your teeth, mouth or dentures?	0.00	0.00	0.00 ($\pm$ 0.00)
16. Have you been less tolerant of your spouse or family because of problems with your teeth, mouth or dentures?	0.00	2.00	0.10 ($\pm$ 0.40)
17. Have you been a bit irritable with other people because of problems with your teeth, mouth or dentures?	0.00	2.00	0.10 ($\pm$ 0.40)
18. Have you been unable to enjoy other people's company as much because of problems with your teeth, mouth or dentures?	0.00	0.00	0.00 ($\pm$ 0.00)
19. Have you felt that life in general was less satisfying because of problems with your teeth, mouth or dentures?	0.00	0.00	0.00 ($\pm$ 0.00)

SD = Standard deviation

personal satisfaction, while the latter define it according to technical prerequisites (31). Research has shown that patients and prosthodontists do not use the same criteria for assessing treatment success, and that they diverge on the answers given (15). Pietrokovski et al. (32) reported that patients tend to show a higher degree of satisfaction with dentures than prosthodontists. Similar results were obtained by Ettinger and Jakobsen (20), who reported a significant negative correlation between evaluations offered by patients and prosthodontists in terms of retention and overall acceptance of mandibular overdentures. In a study by Heydecke et al. (33), prosthodontists and patients (who were given overdentures supported by two lower implants and a conventional lower denture) were asked about their overall satisfaction with the treatment, and with aspects such as stability, speech and esthetics, before and after treatment. It was found that patients and prosthodontists both expressed higher levels of satisfaction with implant-supported prostheses than with conventional ones, with no differences between their evaluations. These results are in accord with those of the present study, in that no statistically significant differences were observed between patients who did not report complaints and those who reported more

than one complaint on the OHIP-EDENT scale in terms of the technical condition of the prostheses, in both the overdenture and the fixed groups.

Moreover, the correspondence in satisfaction concerning the two types of prostheses must be taken in the context of a society in which most of the population live under unfavorable financial conditions. It is suggested that more clinical trials including control groups (with conventional prostheses) should be conducted in order to shed new light on the difference in satisfaction between patients who receive implant-supported overdentures and those receiving fixed prostheses.

In this study, patients treated with overdentures and fixed prostheses were satisfied with their rehabilitation, and no significant difference was observed between the two groups. Furthermore, in both groups, there was no significant difference between patients who did not report complaints and those who reported one or more complaints on the OHIP-EDENT scale, with regard to the technical condition of the prosthesis.

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