Archives of Current Research International

Volume 25, Issue 9, Page 294-311, 2025; Article no.ACRI.143832
ISSN: 2454-7077

Oral Health-related Quality of Life in Patients Rehabilitated with Clasp-Retained Removable Partial Dentures

Francisco Anderson de Sousa Sales [a*], Francisco Josimar Girão Júnior [b], Paulo Goberlânio de Barros Silva [c], Vanara Florêncio Passos [c], Regina Gláucia Lucena Aguiar Ferreira [d], Wagner Araújo de Negreiros [d], Marcelo Barbosa Ramos [d], Clara Monteiro Costa Romero [a], Luiza Brenda Alves Torquato de Souza [a] and Ana Cristina de Mello Fiallos [d]

[a] Federal University of Ceará, Fortaleza, Ceará, Brazil.
[b] Pharmacology Postgraduate Program, Federal University of Ceará, Fortaleza, Ceará, Brazil.
[c] Postgraduate Program in Dentistry, School of Pharmacy, Dentistry and Nursing, Federal University of Ceará, Fortaleza, Ceará, Brazil.
[d] Department of Dentistry, Division of Restorative Dentistry, Federal University of Ceará, Fortaleza, Ceará, Brazil.

Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Article Information

DOI: https://doi.org/10.9734/acri/2025/v25i91497

Open Peer Review History:
This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: https://pr.sdiarticle5.com/review-history/143832

Original Research Article

Received: 22/06/2025
Published: 12/09/2025

**Corresponding author: Email: andersonsousa1357@gmail.com;*

Cite as: *Francisco Anderson de Sousa Sales, Francisco Josimar Girão Júnior, Paulo Goberlânio de Barros Silva, Vanara Florêncio Passos, Regina Gláucia Lucena Aguiar Ferreira, Wagner Araújo de Negreiros, Marcelo Barbosa Ramos, Clara Monteiro Costa Romero, Luiza Brenda Alves Torquato de Souza, and Ana Cristina de Mello Fiallos. 2025. "Oral Health-Related Quality of Life in Patients Rehabilitated With Clasp-Retained Removable Partial Dentures". Archives of Current Research International 25 (9):294–311. https://doi.org/10.9734/acri/2025/v25i91497.*

ABSTRACT

Aims: The present study aimed to evaluate the Oral Health-Related Quality of Life (OHRQoL) of partially edentulous patients rehabilitated with clasp-retained removable partial dentures (CR-RPD) at the School of Dentistry of the Federal University of Ceará (UFC), Fortaleza campus.
Place and Duration of Study: Removable Partial Denture Clinic of the School of Pharmacy, Dentistry and Nursing of the Federal University of Ceará located in Fortaleza, state of Ceará, Brazil, between February 2023 and March 2024.
Methodology: A cross-sectional, descriptive, quantitative study was conducted with 45 participants. Data were collected in the first week after CR-RPD placement using a sociodemographic questionnaire and the Oral Health Impact Profile-14 (OHIP-14). Seven dimensions of oral health-related quality of life were assessed. Data analysis was performed using chi-square and Fisher's exact tests ($P < 0.05$).
Results: It was evidenced that most participants were female (75.6%) and aged between 51 and 70 years (64.5%). The most affected domains were physical pain, psychological discomfort, and emotional disability, while social aspects were less compromised. Patients rehabilitated with mandibular CR-RPDs alone showed higher OHIP-14 scores, suggesting a greater negative impact, although not statistically significant. No significant associations were found with age or type of rehabilitation; however, women reported greater emotional vulnerability ($P = 0.003$).
Conclusion: The findings highlight the importance of a comprehensive rehabilitative approach that addresses not only masticatory function and aesthetics but also the subjective and psychosocial aspects of tooth loss, emphasizing clinical listening and individual needs.

Keywords: Quality of life; oral health; denture; partial; removable; mouth rehabilitation.

1. INTRODUCTION

Tooth loss has significant impacts on the entire stomatognathic system, often leading to irreversible changes in the facial skeletal structure due to alveolar bone resorption and progressive deterioration of neuromuscular function (Dias et al., 2016).

Studies indicate that the consequences of edentulism extend beyond the inability to perform basic functions such as chewing, swallowing, and speaking, encompassing the exacerbation of systemic conditions, including diabetes and hypertension, as well as aesthetic impairment (Dias et al., 2016; Petry et al., 2019). This is partly due to the tendency of partially or completely edentulous individuals to adopt high-calorie diets, favoring easily chewable foods while excluding protein-rich items, which are typically more fibrous and firm (Yoshimoto et al., 2021; Silva-Lovato et al., 2006).

Thus, literature reports indicate that, as the last resort following the failure of previous conservative treatments, tooth loss can impact individuals' psychological and social health in addition to negatively affecting oral function (Dias et al., 2016). Accordingly, the association between edentulism and mental health has been the focus of recent research, showing that patients with tooth loss are more prone to depressive symptoms and social isolation, highlighting that rehabilitative interventions should address not only functional aspects but also the psychosocial effects of this condition (Albuquerque et al., 2023).

In this context, the use of clasp-retained removable partial dentures (CR-RPDs) represents an effective rehabilitative strategy, allowing partial restoration of masticatory function while providing aesthetic benefits and improving patient well-being. These gains are intrinsically linked to the concept of quality of life (Fajardo et al., 2002; Kazuo et al., 2008; Zhang et al., 2013). CR-RPDs are notable for their economic accessibility and are particularly indicated for patients with systemic or structural limitations that prevent implant placement (Mamdouh et al., 2019).

However, the literature indicates that the success of oral rehabilitation goes beyond the technical quality of the prosthesis. Variables such as comfort, aesthetics, speech, and masticatory efficiency are key determinants of user satisfaction (Ereifej et al., 2023). Aesthetic considerations, in particular, are among the main motivators for seeking prosthetic treatment (Peršić & Čelebić, 2015). Even technically well-made prostheses may be rejected by patients,

especially the elderly, due to adaptation issues or dissatisfaction (Petry et al., 2019; Turker et al., 2009). Moreover, factors such as the number and distribution of remaining teeth, age, sex, educational level, and sociocultural context directly influence masticatory capacity, affecting quality of life (Zhang et al., 2013).

The post-insertion period of CR-RPDs is often characterized by difficulties related to chewing, speech, and prosthesis handling, particularly due to motor coordination limitations, which pose significant barriers to prosthetic adaptation (Shala et al., 2016; Silva-Lovato et al., 2006; Silva et al., 2019). Therefore, it is essential for the dentist to understand patients' expectations, perceptions, and attitudes toward treatment to ensure therapeutic success (Pommer, 2013). Accordingly, studies highlight the importance of investigating patient satisfaction as a tool for the continuous improvement of rehabilitative clinical practice (Alvarenga et al., 2011; Silva et al., 2019).

Despite its importance, patient satisfaction assessment is highly variable and subjective, which can pose a challenge for professionals. Nevertheless, understanding this perception is essential, as dissatisfaction can compromise the trust between patient and clinician. However, many dentists still tend to base their evaluations solely on technical criteria, neglecting the patient's perspective (Kok et al., 2017; Pommer, 2013; Yoshimoto et al., 2021).

In this context, the concept of Oral Health-Related Quality of Life (OHRQoL) has gained increasing interest among researchers, as it refers to an individual's subjective perception of their oral condition and the impact of dental treatment on daily life (Ali et al., 2019; Jenei et al., 2015). OHRQoL encompasses aspects such as functional limitation, physical pain, emotional discomfort, and social and psychological impacts associated with tooth loss or impairment (Ali et al., 2019).

Thus, a paradigm shift is observed in dental practice, with increasing emphasis on active patient participation. This approach promotes more humanized practices focused on health promotion and disease prevention through attentive listening and identification of the problems actually experienced by patients. Accordingly, the use of validated instruments to quantify the impact of oral conditions on OHRQoL has become more widespread (Petry et al., 2019; Silva et al., 2019).

Several instruments have been developed for this purpose. Among the pioneers are the Geriatric/General Oral Health Assessment Index (GOHAI), created in 1990 (Atchison & Dolan, 1990), the 36-Item Short Form Health Survey (SF-36) in 1992 (Ware-Jr & Sherbourne, 1992), and the Dental Impact Profile in 1993 (Strauss & Hunt, 1993). In 1994, Slade and Spencer introduced the Oral Health Impact Profile (OHIP-49), which became the main instrument for assessing OHRQoL (Slade & Spencer, 1994). Composed of 49 items covering different dimensions of oral health, the OHIP-49 led to a shortened version, the OHIP-14, designed to facilitate clinical application in research (Allen & Locker, 2002; Almeida et al., 2004; Slade, 1997).

The OHIP-14 is structured into seven domains: functional limitation, pain, psychological discomfort, physical disability, psychological disability, social disability, and social disadvantage. Each domain is represented by two questions, with responses ranging from 0 (never) to 4 (always), based on event frequency. The sum of the scores results in a total score of up to 56 points, with higher scores indicating poorer OHRQoL (Yoshimoto et al., 2021).

CR-RPDs, widely used in public health services, represent an efficient and accessible alternative for restoring masticatory function and aesthetics. However, issues such as discomfort, functional limitations, dissatisfaction with aesthetics, and adaptation difficulties are commonly reported as factors compromising clinical success (Yoshimoto et al., 2021).

Given this scenario, investigating the satisfaction of patients rehabilitated with CR-RPDs is essential not only to identify shortcomings in care but also to support strategies for improving the services provided, potentially informing the revision and updating of undergraduate and postgraduate curricula. Analyzing patients' complaints and expectations can help optimize clinical practice and enhance the training of professionals more attuned to the real needs of the population.

Beyond its academic value, understanding the impact of oral rehabilitation on patients' lives provides relevant insights for planning interventions aimed at improving quality of life, encompassing functional, aesthetic, and psychosocial dimensions. In this context, the present study aims to answer the following question: 'What is the impact of oral health on

the quality of life of partially edentulous patients rehabilitated with CR-RPDs at the Removable Partial Denture Clinic of the School of Pharmacy, Dentistry, and Nursing (FFOE) of the Federal University of Ceará (UFC)?'

Therefore, the objective of this work was to evaluate the OHRQoL of patients, considering functional, aesthetic, emotional, and social aspects, as well as the influence of sociodemographic variables (age, sex, education) and clinical characteristics (type of rehabilitation with CR-RPDs and presence of systemic conditions). The central hypothesis of the research suggests that rehabilitation with CR-RPDs positively influences patients' quality of life, promoting improvements in various aspects, including oral functionality, aesthetics, and psychosocial well-being.

2. METHODOLOGY

This is a cross-sectional, descriptive, and quantitative study in which structured questionnaires on quality of life associated with the use of clasp-retained removable partial dentures (CR-RPDs) were applied. The School of Dentistry of the Federal University of Ceará serves as an important referral center for the population of Fortaleza, state of Ceará, Brazil, particularly in the field of oral rehabilitation with CR-RPDs, with treatments conducted at the clinic of the mandatory Removable Partial Denture course, part of the institution's Dentistry curriculum. On average, 12 patients are rehabilitated per semester.

For the composition of the sample in this study, 45 patients treated during the 2023.1, 2023.2, 2024.1, and 2024.2 semesters were selected based on sample size calculation. The sample size was determined using the proportion estimation method, considering a 95% confidence level and a maximum sampling error of 5%, according to the following formula:

$$n = \frac{EDFF \times N \times p(1-p)}{\left(\frac{d^2}{Z^2 1-\alpha/2}\right) \times (N-1) + p(1-p)}$$

Where:

- n = sample size
- *EDFF* = design effect = 1.0
- N = population size ≈ 48
- *p* = estimated proportion of the characteristic in the population = 50%
- *d* = allowable error (absolute precision) = 0.05
- $Z1-\alpha/2$ = critical value of the standard normal distribution for the desired confidence level = 1.96

Inclusion criteria considered partially edentulous individuals of both sexes, aged 18 to 70 years, who received treatment with CR-RPDs in at least one arch at the referred clinic. Patients were excluded if they: a) received CR-RPD treatment at other clinics of FFOE/UFC; b) had cognitive impairment, mental disorders, or conditions preventing participation in the study; c) refused to participate.

The study was conducted at the Removable Partial Denture Clinic of the School of Pharmacy, Dentistry, and Nursing (FFOE) of UFC, following approval by the Research Ethics Committee (CEP) for human subjects at the Federal University of Ceará, in accordance with Resolution No. 466 of 2012 of the National Health Council/Ministry of Health, which establishes guidelines and standards for research involving human participants as set by the National Research Ethics Commission. All participants were informed verbally and in writing about the study objectives and procedures and provided their consent by signing the Informed Consent Form (ICF).

Confidentiality of the information was ensured, and no interventions were performed beyond the administration of the questionnaires. The risks associated with this study mainly relate to possible discomfort due to the time required to complete the questionnaires and, albeit remotely, the potential breach of confidentiality of the collected data. Nevertheless, all appropriate measures were taken to minimize any inconvenience to participants and to ensure full protection of personal information, guaranteeing the confidentiality and anonymity of both students' and volunteers' data.

After obtaining formal consent, two instruments were applied: (1) a clinical and sociodemographic questionnaire containing 14 questions, which initially allowed data collection for sample characterization, including sociodemographic variables (such as age, sex, employment status, marital status, and education) and clinical variables (type of rehabilitation and systemic conditions); and (2) the short version of the OHIP-49 instrument, called OHIP-14 (Oral Health Impact Profile –

Short Form), composed of 14 items distributed across seven dimensions: functional limitation, physical pain, psychological discomfort, physical disability, psychological disability, social disability, and social disadvantage.

Translated into Portuguese by Almeida, Loureiro and Araújo (2004), the OHIP-14 is widely used to assess the impact of oral health on quality of life. It includes two items in each of the seven dimensions (Slade, 1997). Through the responses, problems are recorded according to the self-perception reported for each of the fourteen OHIP questions. Responses were given on a Likert-type scale and coded with five options: 4 = 'always'; 3 = 'repeatedly'; 2 = 'sometimes'; 1 = 'rarely'; and 0 = 'never'. For this report, descriptive statistics were generated by calculating the mean of the coded response for each item, described below as the severity score for each item. Consequently, the OHIP-14 scale ranges from 0 to 56, with higher scores indicating worse performance (Almeida et al., 2004).

All questions in the OHIP-14 questionnaire aim to relate the oral condition or the prostheses in use to the themes of each dimension. The functional limitation dimension includes questions about difficulty speaking and worsened taste perception; the pain dimension addresses the sensation of pain and discomfort when eating; the psychological discomfort dimension refers to worry and stress due to the oral condition. Impairment in eating and the need to stop eating are addressed in the physical disability dimension, while the psychological disability dimension includes questions about difficulty relaxing and feelings of embarrassment due to the oral condition. The social disability dimension includes questions about irritation with others and difficulty performing daily activities because of the oral condition; finally, the handicap dimension examines whether the individual perceives their life as worsened and whether they felt completely unable to carry out routine activities.

Before administering the questionnaires, a pilot test was conducted with patients treated in previous semesters. At this stage, it was verified that there were no difficulties regarding comprehension of the instrument items, the time required to complete them (approximately fifteen minutes), or the location chosen for the activity. Data collection took place during the first week after prosthesis placement, through the administration of the questionnaires conducted by students of the Removable Partial Denture course, properly guided and supervised by the responsible faculty members. The researcher read each question together with the participant, and after the reading, the volunteer freely selected their response from the five options on the Likert scale (never, rarely, sometimes, frequently, and always) and followed the corresponding marking.

Data were organized in Microsoft Excel® and subsequently analyzed using the Statistical Package for the Social Sciences (SPSS®), version 20.0 for Windows. Descriptive analysis of the variables was performed, with results expressed as absolute frequency, percentage, mean, and standard deviation. The internal consistency of the OHIP-14 instrument was assessed using Cronbach's alpha coefficient. To analyze associations between OHIP-14 scores and sociodemographic and clinical variables, Fisher's exact test or Pearson's chi-square test were applied, depending on the nature of the variables. Total OHIP-14 scores were categorized as below or above the median, and all analyses were conducted at a 95% confidence level ($\alpha = 0.05$).

3. RESULTS AND DISCUSSION

3.1 Results

The study sample consisted of 45 participants, predominantly female (75.6%). Most individuals were aged between 61 and 70 years (35.6%), followed by the 51–60 age group (28.9%) and those over 70 years (22.2%), reflecting the typical geriatric profile of removable partial denture users. Regarding education, 22.2% of participants had completed higher education.

Regarding marital status, most participants were married or in a stable union (51.1%), followed by single individuals (33.3%). Concerning the type of rehabilitation, the majority used clasp-retained removable partial dentures in both arches (37.8%), while 28.9% used only maxillary CR-RPDs and 22.2% only mandibular CR-RPDs; combined prostheses (mandibular removable and maxillary complete) were observed in 11.1% of cases.

Regarding self-reported systemic conditions, 44.4% reported a diagnosis of diabetes, 31.1% mentioned arthritis, gastrointestinal problems, or xerostomia, 26.7% had cardiovascular conditions, and 28.9% did not present any significant diseases at the time of evaluation.

Analysis of the OHIP-14 questionnaire responses revealed that the items with the highest mean impact were 'troubled while eating because of teeth, mouth, or dentures' (item 4; mean = 1.04; SD = 1.13), 'felt embarrassed because of the oral condition' (item 10; mean = 0.98; SD = 1.41), 'felt uncomfortable because of the oral condition' (item 5; mean = 0.69; SD = 1.10), and 'experienced severe oral pain' (item 3; mean = 0.64; SD = 1.07), suggesting greater impairment in the dimensions of physical pain, psychological disability, and psychological discomfort.

These items also showed the highest frequency of responses at the 'sometimes' and 'repeatedly' levels, reflecting a noticeable impact on quality of life. In contrast, the items 'overall life worsened because of teeth' (item 13; mean = 0.33; SD = 0.83), 'had to stop eating' (item 8; mean = 0.49; SD = 0.94), and 'difficulty relaxing' (item 9; mean = 0.33; SD = 0.74) had lower means, indicating a lesser functional or social influence.

The items with the lowest impact were 'affected your daily activities' (item 12; mean = 0.04; SD = 0.21), 'felt that the taste of food worsened' (item 2; mean = 0.07; SD = 0.33), and 'became irritated with other people' (item 11; mean = 0.09; SD = 0.47), with a predominance of 'never' responses, indicating minimal impact on these aspects. Overall, the results suggest that the greatest perceived impairments among participants were related to functional aspects of eating, pain, and self-esteem.

When analyzing the OHIP-14 domains, it was observed that the greatest impact on oral health-related quality of life occurred in the “physical pain” domain (mean = 0.84; SD = 1.11), followed by “psychological discomfort” (mean = 0.66; SD = 1.07) and “psychological disability” (mean = 0.66; SD = 1.16). These findings indicate that aspects related to pain, self-esteem, and emotional distress were the most affected among the participants.

Table 1. Sociodemographic and clinical characteristics of the study participants (n = 45)

Variable	Category	n	%
Age group (years)	18–30	0	0.0%
	31–40	1	2.2%
	41–50	5	11.1%
	51–60	13	28.9%
	61–70	16	35.6%
	> 70	10	22.2%
Sex	Female	34	75.6%
	Male	11	24.4%
Education	Primary education	17	37.8%
	Secondary education	18	40.0%
	Higher education	10	22.2%
Marital status	Single	15	33.3%
	Married / Stable union	23	51.1%
	Divorced	3	6.7%
	Widowed	4	8.9%
Type of prosthetic rehabilitation	Maxillary CR-RPD	13	28.9%
	Mandibular CR-RPD	10	22.2%
	Maxillary + Mandibular CR-RPD	17	37.8%
	Mandibular CR-RPD + Maxillary complete denture	5	11.1%
Smoking status	Non-smoker	32	71.1%
	Former smoker	11	24.4%
	Smoker	2	4.4%
Self-reported systemic conditions	None	13	28.9%
	Cardiovascular	12	26.7%
	Diabetes	20	44.4%
	Arthritis, Gastrointestinal problems, or Xerostomia	14	31.1%

Table 2. Absolute frequency, percentage, mean, standard deviation, and Cronbach's α coefficient of the OHIP-14 item occurrences

Question	Never (0)	Rarely (1)	Sometimes (2)	Repeatedly (3)	Always (4)	Mean ± SD	Cronbach's α
OHIP-14						6.20 ± 6.06	0.769
1	35 (77.8%)	6 (13.3%)	4 (8.9%)	0 (0.0%)	0 (0.0%)	0.31 ± 0.63	0.774
2	43 (95.6%)	1(2.2%)	1 (2.2%)	0 (0.0%)	0 (0.0%)	0.07 ± 0.33	0.769
3	30 (66.7%)	6 (13.3%)	5 (11.1%)	3 (6.7%)	1 (2.2%)	0.64 ± 1.07	0.735
4	21 (46.7%)	6 (13.3%)	14 (31.1%)	3 (6.7%)	1 (2.2%)	1.04 ± 1.13	0.785
5	29 (64.4%)	6 (13.3%)	7 (15.6%)	1 (2.2%)	2 (4.4%)	0.69 ± 1.10	0.738
6	32 (71.1%)	1 (2.2%)	10 (22.2%)	1 (2.2%)	1 (2.2%)	0.62 ± 1.05	0.722
7	35 (77.8%)	4 (8.9%)	4 (8.9%)	1 (2.2%)	1 (2.2%)	0.42 ± 0.92	0.728
8	33 (73.3%)	5 (11.1%)	5 (11.1%)	1 (2.2%)	1 (2.2%)	0.49 ± 0.94	0.740
9	36 (80.0%)	4 (8.9%)	4 (8.9%)	1 (2.2%)	0 (0.0%)	0.33 ± 0.74	0.758
10	27 (60.0%)	4 (8.9%)	7 (15.6%)	2 (4.4%)	5 (11.1%)	0.98 ± 1.41	0.733
11	43 (95.6%)	1 (2.2%)	0 (0.0%)	1 (2.2%)	0 (0.0%)	0.09 ± 0.47	0.766
12	43 (95.6%)	2 (4.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0.04 ± 0.21	0.775
13	38 (84.4%)	1 (2.2%)	4 (8.9%)	2 (4.4%)	0 (0.0%)	0.33 ± 0.83	0.756
14	43 (95.6%)	1 (2.2%)	1 (2.2%)	0 (0.0%)	0 (0.0%)	0.07 ± 0.33	0.776

1: Speech, 2: Taste, 3: Pain, 4: Discomfort while eating, 5: Feeling self-conscious, 6: Stressed, 7: Eating affected, 8: Had to interrupt meals, 9: Difficulty relaxing, 10: Embarrassed, 11: Irritated, 12: Difficulty with daily tasks, 13: Life worse, 14: Incapacitated

Table 3. OHIP index domains

Domain	Mean	Standard Deviation
Functional Limitation 1–2	0.19	0.52
Physical Pain 3–4	0.84	1.11
Psychological Discomfort 5–6	0.66	1.07
Physical Disability 7–8	0.46	0.93
Psychological Disability 9–10	0.66	1.16
Social Disability 11–12	0.07	0.36
Social Disadvantage 13–14	0.20	0.64

The "physical disability" (mean = 0.46; SD = 0.93) and "functional limitation" (mean = 0.19; SD = 0.52) domains showed moderate to mild impact. The "social disadvantage" (mean = 0.20; SD = 0.64) and, particularly, "social disability" (mean = 0.07; SD = 0.36) domains were the least affected, suggesting that, although participants reported physical symptoms and emotional discomfort, the effect on social relationships and daily activities was minimal. The variability of the scores, reflected by the standard deviations, also indicates that the perception of impact is heterogeneous among the individuals assessed.

The analysis of correlations between OHIP-14 item scores and clinical and sociodemographic variables generally revealed no statistically significant associations in most cases. No relevant correlations were observed between item scores and either the type of rehabilitation or participants' age ($P > 0.05$ for all items). Regarding sex, among participants who reported difficulty relaxing due to oral health, the majority of moderate to severe impact responses (scores 2 and 3) came from female patients (75.0% and 100%, respectively).

On the other hand, the response "1 – rarely" was recorded exclusively among men (100%). The chi-square test demonstrated a statistically significant association between sex and the reported level of difficulty in relaxing ($P = 0.003$). The strength of the association, measured by Cramer's V coefficient, was moderate to strong ($\varphi c = 0.555$). This finding suggests that sex influences the perception of psychological discomfort among CR-RPD users.

For the remaining items, no significant differences were found between sexes, suggesting that, across the sample, the effects of prosthetic rehabilitation on quality of life are perceived relatively homogeneously with respect to the type of prosthesis, age, and, except for item 9, sex (Table 4).

Regarding the total OHIP-14 score, which can range from 0 to 56 points for each patient, there is no clear definition for classifying the scores as satisfactory or unsatisfactory. However, Zhang et al. (2013) proposed that total OHIP-14 values up to 5 points be considered indicative of unimpaired OHRQoL, while values above 5 correspond to compromised OHRQoL. Analysis of the total scores of the 45 study participants revealed that 62.2% had scores less than or equal to 5, whereas 37.8% had higher values (Table 5).

The comparison of mean OHIP-14 scores among different types of prosthetic rehabilitation revealed variations in perceived oral health-related quality of life. Participants rehabilitated with mandibular CR-RPDs alone presented the highest mean score, indicating a greater negative impact (≈ 8.5 points), followed by users

Table 4. Correlation between the OHIP-14 index and variables

	Correlation significance (*P*-value)		
OHIP-14 Question	**Type of Rehabilitation**	**Age**	**Sex**
1	0.251	0.822	0.360
2	0.417	0.222	0.713
3	0.910	0.764	0.941
4	0.401	0.395	0.480
5	0.386	0.884	0.794
6	0.725	0.747	0.403
7	0.713	0.969	0.267
8	0.676	0.824	0.071
9	0.351	0.945	0.003*
10	0.186	0.110	0.829
11	0.516	0.715	0.713
12	0.261	0.785	0.411
13	0.593	0.636	0.791
14	0.132	0.715	0.713
Total Score	0.933	0.743	0.794

**Statistically significant correlation (P < 0.05)*

1: Speech, 2: Taste, 3: Pain, 4: Discomfort while eating, 5: Feeling self-conscious, 6: Stressed, 7: Eating affected, 8: Had to interrupt meals, 9: Difficulty relaxing, 10: Embarrassed, 11: Irritated, 12: Difficulty with daily tasks, 13: Life worse, 14: Incapacitated (Chi-square Test)

Table 5. Analysis of the total OHIP-14 scores obtained

Score range (OHIP-14)	n	%	Mean	Standard deviation
≤5	28	62.2%	2.54	1.45
>5	17	37.8%	12.24	5.94

of a maxillary complete denture + mandibular CR-RPD (≈ 6.2 points) and those with both maxillary and mandibular CR-RPDs (≈ 5.3 points).

In contrast, patients rehabilitated with maxillary CR-RPDs alone presented the lowest mean score (≈ 4.6 points), suggesting a better perception of oral health and less impact on quality of life. The error bars indicate some intra-group variation, but not complete overlap among all groups, suggesting a trend of differences between rehabilitation types, although not necessarily statistically significant.

Despite the visual differences observed in the mean OHIP-14 scores among the prosthetic rehabilitation groups, the Kruskal-Wallis test followed by Dunn's multiple comparisons test did not identify statistically significant differences between the groups analyzed (adjusted $P > 0.9999$ for all comparisons) (Fig. 1).

3.2 Discussion

The concept of Oral Health-Related Quality of Life (OHRQoL) considers that oral health interventions, such as the installation of a new prosthesis, may have highly relevant repercussions in several areas of a patient's life, which can be either positive or negative (Mamdouh et al., 2019; Mckenna et al., 2018). In this context, the Oral Health Impact Profile (OHIP-14), used in the present study, is an important and consistent method for the subjective evaluation of oral health, as it allows a quantitative measurement of patients' perceptions of their oral condition after treatment (Salazar et al., 2021; Yoshimoto et al., 2021).

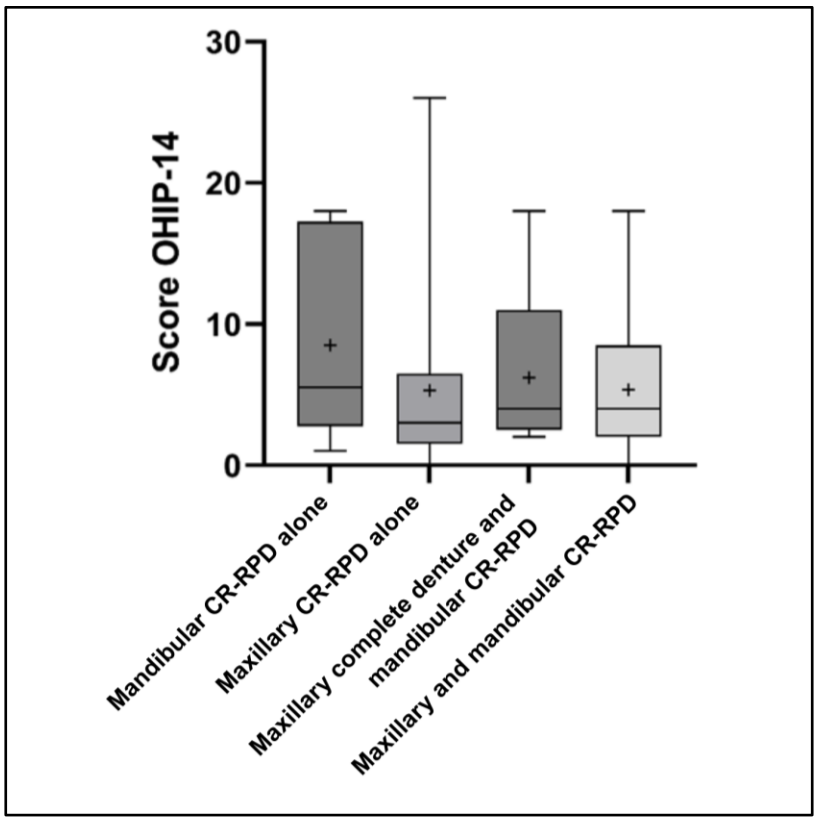

Fig. 1. Mean OHIP-14 scores according to the type of prosthetic rehabilitation
Note: Error bars represent the variability within each group

In this way, the results of the OHIP-14 can be analyzed in detail across its seven domains that comprise the assessment: functional limitation, pain, psychological discomfort, physical disability, psychological disability, social disability, and social handicap (Mamdouh et al., 2019; Mckenna et al., 2018; Peršić & Čelebić, 2015).

The application of OHIP-14 to assess the impact of oral health on quality of life provides methodological advantages, such as the standardization of collected data, the opportunity for the interviewer to clarify the objectives, as well as guidance in completing the instrument, which ensure greater homogeneity and usefulness of the collected information (Campos et al., 2021). However, its applicability also presents disadvantages, ranging from the possibility of response bias due to the influence of the interviewer's presence, to the limitation of individuals' freedom of expression, since the response options are predefined, which may thus minimize the individual perception of the respondent (Oliveira et al., 2021; Slowik et al., 2025).

Currently, there is a growing concern regarding the effects of tooth loss and the use of removable dentures on individuals' quality of life (Mckenna et al., 2018). On the other hand, increasing scientific evidence points to significant repercussions both in functional aspects, such as mastication, and in psychosocial aspects, such as feelings of low self-esteem, among others (Mamdouh et al., 2019; Yoshimoto et al., 2021).

In this context, studies indicate that satisfaction with removable dentures is related not only to the quality of functional adaptation, comfort, and esthetics, but also to continuous clinical support during the post-installation period through adjustments (Alotaibi, 2025; Soboleva & Rogovska, 2022; Techapiroontong et al., 2022).

Thus, patients' perception of stability, masticatory efficiency, and social impact underscores the importance of planning individualized rehabilitation strategies that consider both biomechanical and subjective factors, in order to ensure the use of the dental prosthesis (Ereifej et al., 2023). This scenario highlights the need for more comprehensive rehabilitative approaches, which, in dental planning, include the joint analysis of clinical, functional, and emotional factors (Cimões et al., 2021; Techapiroontong & Limpuangthip, 2024).

In the present study, partially edentulous individuals rehabilitated with clasp-retained removable partial dentures (CR-RPDs) participated as volunteers. Regarding sociodemographic aspects, the higher prevalence of women corroborates the findings of other studies conducted in dental school clinics (Mariano et al., 2024; Sabiá & Lopes, 2022; Tavares et al., 2016). Previous studies report that this distribution may not reflect a higher prevalence of the condition among women but may be associated with the greater availability of this group to attend appointments in dental school clinics, which are generally held during daytime hours and require longer sessions due to the educational nature of care provided by students in clinical training (Cunha & Leite, 2022; Echeverria et al., 2020). Other studies also suggest that women tend to use dental services more frequently, possibly due to greater concern with oral health and higher engagement in preventive care, which favors regular attendance at scheduled appointments (Sfeatcu et al., 2022).

Regarding age group, it was found that 42.2% of the volunteers were 60 years old or younger, while 40.0% of the participants were between 41 and 60 years old. This age profile may be explained by socioeconomic factors, such as limited access to dental treatment, which favors early tooth loss (Lee et al., 2022; Mendonça et al., 2024; Vieira et al., 2021). On the other hand, the insufficient provision of dental prosthetic rehabilitation for fully or partially edentulous patients in the public health system should also be considered (Cortez et al., 2023; Vettore et al., 2020). Regarding sociodemographic aspects, the results of the present study indicate that only 22.2% of participants reported having completed higher education. This finding reinforces results from previous studies, which indicated a higher risk of tooth loss among individuals with lower income and education levels, demonstrating that social inequalities influence oral health (Vettore et al., 2020).

Within this study, among the items of the OHIP-14 instrument, the question addressing shame associated with oral problems or the use of dentures, belonging to the domain of psychological disability, received the most pronounced responses. This finding corroborates recent research demonstrating the strong emotional and social impact of tooth loss, particularly in the anterior dental arch, which is frequently associated with low self-esteem, social

withdrawal, and psychological distress (Imam, 2021). Even among patients who obtained the lowest OHIP-14 scores, shame was often emphasized, highlighting the subjective relevance of dental aesthetics, which is generally valued more than masticatory function (Guimarães et al., 2021). The literature indicates that tooth loss in posterior regions has a lower impact on quality of life compared to anterior tooth loss, which is directly linked to the pursuit of aesthetic rehabilitation (Bastos et al., 2024). There is evidence that tooth loss may be associated with depressive symptoms and decreased mental well-being, particularly regarding self-image and social acceptance (Karimi et al., 2024).

Regarding the impact of systemic conditions, a high prevalence of diabetes mellitus (44.4%) was observed among the study participants. This finding corroborates reports in the literature that emphasize significantly greater tooth loss in individuals with diabetes, due to a higher incidence of caries and periodontitis. Accordingly, diabetes is strongly associated with changes in masticatory function and overall oral health (Pavani et al., 2024; Tabassum, 2022).

Other systemic conditions reported in the present study included xerostomia, arthritis, and gastrointestinal (GI) problems, which were reported by 31.1% of the sample. The presence of xerostomia has been significantly associated in many studies with reduced satisfaction with the performance of removable dentures, negatively impacting OHRQoL, particularly in the domains of psychological and social disability (Sundaram et al., 2020). It has been observed that functions such as mastication, speech, and denture retention (factors that compromise patient adaptation and comfort) are greatly impaired in the presence of xerostomia (Tanaka et al., 2021).

Regarding cardiovascular diseases (CVD), reported in 26.7% of the sample, the literature indicates that cardiovascular patients using removable dentures present elevated OHIP-14 scores, reflecting poorer OHRQoL, with factors such as xerostomia, high DMFT (Decayed, Missing, and Filled Teeth) indices, and gingival bleeding being directly associated with this condition (Molania et al., 2021). The presence and severity of periodontal disease in these individuals intensify functional limitations and psychological discomfort, highlighting the influence of periodontal health on the perception of OHRQoL (Lazureanu et al., 2022). Consequently, studies emphasize the fundamental importance of adopting an integrated approach by the dentist, taking into account systemic conditions and prosthetic aspects, in order to optimize the functional and psychosocial outcomes of rehabilitation (Tanaka et al., 2021).

Regarding the impact of the type of prosthetic rehabilitation on OHRQoL, the comparison of mean OHIP-14 scores among different types of prosthetic rehabilitation revealed variations in OHRQoL perception. From the perspective of biomechanical challenges and functional outcomes, distal-extension CR-RPDs present particular difficulties due to rotational instability, uneven load distribution, and diminished masticatory function. Finite element analyses have confirmed that stress tends to concentrate on abutments and residual ridges, increasing the risk of resorption and prosthesis instability (Mousa et al., 2021). Consistent with these biomechanical observations, clinical studies have shown that CR-RPDs with bilateral distal extensions, particularly mandibular CR-RPDs, are associated with greater instability, increased patient discomfort, and accelerated ridge resorption, all of which contribute to higher rates of patient dissatisfaction and reduced treatment success (Koyama et al., 2010).

In the current investigation, participants rehabilitated exclusively with mandibular CR-RPDs presented the highest mean score, suggesting a greater negative impact compared to those using maxillary complete dentures combined with CR-RPDs or maxillary CR-RPDs alone, although without statistically significant differences. The stability of prostheses, particularly mandibular CR-RPDs, and masticatory efficiency have been identified as factors with a strong impact on quality of life in partially edentulous patients, reflecting impairment in overall health status (Amagai et al., 2017). A study conducted by Choong et al. (2022) revealed that, although removable partial dentures improve OHRQoL, users of mandibular CR-RPDs frequently face complications such as poor adaptation and inflammation of the oral fibromucosa, which may compromise the expected benefits of rehabilitation. These findings align with studies showing the relationship between the use of conventional removable dentures and masticatory efficiency, with direct consequences on nutrition and physical well-being (Brígido et al., 2023; Cifuentes-Suazo et al., 2024).

On the other hand, it is important to emphasize that tooth loss, when associated with the use of inadequate removable partial dentures, can significantly affect the patient's psychosocial and functional well-being, leading to feelings of embarrassment, difficulty relaxing, dietary restrictions, and even social isolation (Goel et al., 2015). Such consequences have been described in studies observing a strong association between unsatisfactory prosthetic conditions and impaired quality of life, particularly among the elderly, the predominant age group in the present study sample (57.8%) (Brígido et al., 2023; Goel et al., 2015).

Although oral health status influences various domains of quality of life (Dias et al., 2016; Oliveira et al., 2021; Albuquerque et al., 2023), the data from the present study showed that the domain of "social disability", related to interpersonal interaction and the performance of daily activities, was the least affected among the evaluated dimensions. In contrast, the domains showing the greatest impairment for partially edentulous patients were shame resulting from tooth loss (psychological disability), discomfort during eating (pain dimension), distress related to oral health (psychological discomfort), and dietary difficulties due to tooth loss (physical disability). These findings corroborate studies indicating that the emotional impact of oral conditions is one of the main factors affecting the well-being of edentulous older adults (Echeverria et al., 2018; Oliveira et al., 2021).

Patients receiving new dental prostheses often face a challenging adaptation period, marked by unrealistic expectations that can make this process potentially distressing (Mamdouh et al., 2019; Salazar et al., 2021). Several studies report that OHIP-14 scores after treatment with clasp-retained removable partial dentures tend to be low, a finding confirmed in the present study (Yashimoto et al., 2021; Zhang et al., 2013). In investigations that conducted multiple OHIP-14 assessments over time, a progressive reduction in mean scores between the first and last OHIP-14 administration was observed (Dias et al., 2016; Peršić & Čelebić, 2015; Mamdouh et al., 2019; Mckenna et al., 2018; Salazar et al., 2021). According to the authors, this decrease has been attributed to the mitigation or lower frequency of problems such as speech difficulties, discomfort during eating, social embarrassment, and others following prosthesis installation (Mamdouh et al., 2019; Mckenna et al., 2018).

It was observed that the most predominant response to the OHIP-14 items was "never", and that 62.2% of participants had total scores below five points (on a scale ranging from 0 to 56), corroborating previous evidence that many adults and older adults tend to minimize or even normalize their oral conditions, perceiving them as part of the normal aging process (Nogueira et al., 2017). Studies suggest that this low self-perception persists even among individuals with high dental care needs, hindering the pursuit of adequate treatment (Takeuchi et al., 2023). Furthermore, there is a tendency for partial or total tooth extraction to be frequently regarded as a definitive solution for pain and functional disorders, particularly in situations of socioeconomic vulnerability (Aguiar et al., 2022). This passive acceptance of tooth loss underscores the essential role of educational and preventive actions in promoting oral health among older adults (Nogueira et al., 2017).

In the present study, the "physical pain" domain obtained the highest score on the OHIP-14. However, this score did not reach even half of the maximum possible score, indicating that the consequences of tooth loss extend beyond physical discomfort. Indeed, studies show that tooth loss not only reduces masticatory and phonetic function but also affects facial aesthetics and personal identity, considerably impacting quality of life (Oliveira et al., 2021; Veeraboina et al., 2022). In this regard, edentulism has been associated with the aging process, social exclusion, and unfavorable socioeconomic status, perpetuating health inequalities (Saintrain et al., 2018; Weber et al., 2021).

It is important to emphasize that the fact that some OHIP-14 domains show higher frequency or impact in the studied group does not diminish the importance of the others. Tooth loss can individually affect different areas of a person's life, such as physical pain, functional limitation, psychological discomfort, and social disability, depending on each individual's subjective experience. Therefore, oral health professionals should consider the individuality of each person when assessing the effects of tooth loss on their lives (Campos et al., 2021).

In the current study, despite the low OHIP-14 scores obtained, the single administration of the OHIP-14 after rehabilitation may be considered a limiting factor, as it did not allow the observation of potential changes in the domains over time.

However, the literature confirms the validity of this instrument in providing useful information to the dentist, both in a single application after procedures and in longitudinal application during follow-up visits, allowing temporal comparisons (Dias et al., 2016; Zhang et al., 2013). On the other hand, in agreement with the results of other studies, it was observed that comorbidities such as diabetes, low educational level, and limited self-perception of oral condition negatively influenced patient assessments (Slowik et al., 2025; Vettore et al., 2020).

It is worth noting that, although an exclusively quantitative perspective is limited in providing a holistic understanding of the subjective aspects related to the experiences of individuals with partial tooth loss, it is essential for capturing patterns and trends (Yoshimoto et al., 2021). Thus, the use of instruments such as the OHIP-14, which encompass subjective dimensions, can assist professionals in assessing the magnitude of the impact of tooth loss, emphasizing the provision of care that is more sensitive, humanized, and focused on listening, welcoming, and monitoring the patient (Dias et al., 2016; Salazar et al., 2021).

4. CONCLUSION

The study revealed that rehabilitation with clasp-retained removable partial dentures (CR-RPDs) had a significant and positive impact on oral health-related quality of life (OHRQoL), particularly in the domains of physical pain, emotional disability, and psychological discomfort, with no differences observed between the different types of CR-RPD rehabilitation. Reports of shame and discomfort while eating were frequent, with sex being a factor influencing the perception of psychological discomfort among CR-RPD users. The findings highlight the importance of adopting a comprehensive and humanized approach in therapeutic planning, incorporating psychosocial factors and social vulnerability to ensure the success of prosthetic rehabilitations.

APPENDIX

The following Appendix are available: https://www.journalacri.com/index.php/ACRI/libraryFiles/downloadPublic/26

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

The authors acknowledge the use of AI (OpenAI's ChatGPT –GPT-4o, accessed in August 2025) solely to assist with correcting the English translation of the manuscript, which was originally written in Brazilian Portuguese. All AI-assisted content was carefully reviewed and edited by the authors for accuracy and clarity.

ETHICAL APPROVAL

Approval by the Research Ethics Committee (CEP). Name of the ethics committee: COMITÊ DE ÉTICA EM PESQUISA EM SERES HUMANOS DA UNIVERSIDADE FEDERAL DO CEARÁ. Opinion Number: 5.404.178. Certificate of Presentation for Ethical Assessment (CAAE): 58284822.1.0000.5054.

CONSENT

All authors declare that they have obtained written informed consent from the participants for the publication of this original observational research.

ACKNOWLEDGEMENTS

The authors declare that this study received no specific grant from any funding agency in the public, commercial, or non-profit sectors. No financial support was provided for the development of research or the preparation of this manuscript.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

Aguiar, A. D., Oliveira, E. R. A., & Miotto, M. H. M. B. (2022). Tooth Loss, Sociodemographic Conditions and Oral Health-Related Quality of Life in the Elderly. *Pesquisa Brasileira em Odontopediatria e Clínica Integrada*, *22*, e200189. https://doi.org/10.1590/pboci.2022.018

Albuquerque, L. S., Queiroz, R. G., Abanto, J., Bönecker, M. J. S., Forte, F. D. S., & Sampaio, F. C. (2023). Dental Caries, Tooth Loss and Quality of Life of Individuals Exposed to Social Risk Factors in Northeast Brazil. *International Journal of Environmental Research and Public Health*, *20*(17), e6661. https://doi.org/10.3390/ijerph20176661

Ali, Z., Baker, S. R., Shahrbaf, S., Martin, N., & Vettore, M. V. (2019). Oral health-related quality of life after prosthodontic treatment for patients with partial edentulism: A systematic review and meta-analysis. *The Journal of Prosthetic Dentistry*, *121*(1), 59–68. https://doi.org/10.1016/j.prosdent.2018.03.003

Allen, F., & Locker, D. (2002). A modified short version of the oral health impact profile for assessing health-related quality of life in edentulous adults. *The International Journal of Prosthodontics*, 15(5), 446–450. https://pubmed.ncbi.nlm.nih.gov/12375458

Almeida, A. M., Loureiro, C. A., & Araújo, V. E. (2004) Um estudo transcultural de valores de saúde bucal utilizando o instrumento OHIP-14 (Oral Health Impact Profile) na forma simplificada: parte I-adaptação cultural e linguística. *Revista Brasileira de Pesquisa em Saúde/Brazilian Journal of Health Research*, *6*(1), 6-15. http://dx.doi.org/10.21722/rbps.v6i1.10632

Alotaibi, H. N. (2025). Patient Satisfaction with CAD/CAM 3D-Printed Complete Dentures: A Systematic Analysis of the Clinical Studies. *Healthcare (Basel, Switzerland)*, *13*(4), e388. https://doi.org/10.3390/healthcare13040388

Alvarenga, F. A. S., Henriques, C.; Takatsui, F., Montandon, A. A. B., Telarolli-Júnior, R., Monteiro, A. L. C. C., et al. (2011). Oral health impact profile in the quality of life of patients over 50 years old of two public institutions of Araraquara city, SP, Brazil. *Revista de Odontologia da UNESP*, *40*(3), 118-124.

Amagai, N., Komagamine, Y., Kanazawa, M., Iwaki, M., Jo, A., Suzuki, H., et al. (2017). The effect of prosthetic rehabilitation and simple dietary counseling on food intake and oral health related quality of life among the edentulous individuals: A randomized controlled trial. *Journal of Dentistry*, *65*, 89–94. https://doi.org/10.1016/j.jdent.2017.07.011

Atchison, K. A., & Dolan, T. A. (1990). Development of the Geriatric Oral Health Assessment Index. *Journal of Dental Education*, *54*(11), 680–687. https://pubmed.ncbi.nlm.nih.gov/2229624

Bastos, L. M. C., Guaitolini, A. F., Aguiar, A. D., Rocha, R. P. O., & Miotto, M. H. M. B. (2024). Epidemiologia das perdas dentárias e expectativa de reposição protética em adultos e idosos. *Revista Enfermagem Atual in Derme*, *98*(1), e024257. https://doi.org/10.31011/reaid-2024-v.98-n.1-art.2045

Brígido, J. A., Rosa, W. L. O., & Lund, R. G. (2023). The effect of prosthetic rehabilitation with or without dietary advice on nutritional status in elderly patients: a systematic review. *Aging Clinical and Experimental Research*, *35*(11), 2399–2411. https://doi.org/10.1007/s40520-023-02578-6

Campos, L. A., Peltomäki, T., Marôco, J., & Campos, J. A. D. B. (2021). Use of Oral Health Impact Profile-14 (OHIP-14) in Different Contexts. What Is Being Measured?. *International Journal of Environmental Research and Public Health*, *18*(24), e13412. https://doi.org/10.3390/ijerph182413412

Choong, E. K. M., Shu, X., Leung, K. C. M., & Lo, E. C. M. (2022). Oral health-related quality of life (OHRQoL) after rehabilitation with removable partial dentures (RPDs): A systematic review and meta-analysis. *Journal of Dentistry*, *127*, e104351. https://doi.org/10.1016/j.jdent.2022.104351

Cifuentes-Suazo, G., Alarcón-Apablaza, J., Jarpa-Parra, M., Venegas, C., Marinelli, F., & Fuentes, R. (2024). Dietary Counseling: An Option to Malnutrition and Masticatory Deficiency in Patients with Total Protheses? A Scoping Review. *Nutrients*, *17*(1), 141. https://doi.org/10.3390/nu17010141

Cimões, R., Pinho, R. C. M., Gurgel, B. C. V., Borges, S. B., Marcantonio-Júnior, E., Marcantonio, C. C., et al. (2021). Impact of tooth loss due to periodontal disease on the prognosis of rehabilitation. *Brazilian Oral Research*, *35*(2), e101. https://doi.org/10.1590/1807-3107bor-2021.vol35.0101

Cortez, G. F. P., Barbosa, G. Z., Tôrres, L. H. N., & Unfer, B. (2023). Razões e consequências das perdas dentárias em adultos e idosos no Brasil: metassíntese qualitativa. *Ciência & Saúde Coletiva*, *28*(5), 1413–1424. https://doi.org/10.1590/1413-81232023285.01632022

Cunha, R. O., & Leite, I. C. G. (2022). Factors associated with recent and regular non-use of dental services by students from a university in southeastern Brazil: a cross-sectional study. *BMC Oral Health*,

22(1), e612. https://doi.org/10.1186/s12903-022-02648-7

Dias, K. C., Carreiro, A. F. P., Resende, C. M. B. M., Tôrres, A. C. S. P., & Mestriner-Júnior, W. (2016). Does a mandibular RDP and new maxillary CD improve masticatory efficiency and quality of life in patients with a mandibular Kennedy class I arch? *Clinical Oral Investigations*, *20*(5), 951–957. https://doi.org/10.1007/s00784-015-1596-z

Echeverria, M. S., Silva, A. E. R., Agostini, B. A., Schuch, H. S., & Demarco, F. F. (2020). Regular use of dental services among university students in southern Brazil. *Revista de Saúde Pública*, *54*, e85. https://doi.org/10.11606/s1518-8787.2020054001935

Echeverria, M. S., Wünsch, I. S., Langlois, C. O., Cascaes, A. M., & Silva, A. E. R. (2018). Oral health-related quality of life in older adults-Longitudinal study. *Gerodontology*, *36*(2), 118–124. https://doi.org/10.1111/ger.12387

Ereifej, N. S., Oweis, Y. G., & Abu-Awwad, M. (2023). The effect of using denture adhesives on patient satisfaction with complete dentures; a randomized clinical trial. *BMC Oral Health*, *23*(1), e1027. https://doi.org/10.1186/s12903-023-03757-7

Fajardo, R. S., Sundefeld, M. L. M. M., Cação, F. M., Nepomuceno, G. C.; Amaral, T. C., Goiato, M. C., et al. (2002). Análise das condições funcionais e psicológicas em pacientes edêntulos portadores de prótese totais. *Arquivos em Odontologia*, *38*(2), 87-94.

Goel, K., Singh, S. V., Chand, P., Rao, J., Tripathi, S., Kumar, L., et al. (2015). Impact of Different Prosthodontic Treatment Modalities on Nutritional Parameters of Elderly Patients. *Journal of Prosthodontics*, *25*(1), 21–27. https://doi.org/10.1111/jopr.12283

Guimarães, M. O., Drumond, C. L., Nunes, L. S., Oliveira, E. S., Zarzar, P. M., Ramos-Jorge, M. L., et al. (2021). Prevalence of oral health-related shame and associated factors among Brazilian schoolchildren. *Brazilian Oral Research*, *35*, e133. https://doi.org/10.1590/1807-3107bor-2021.vol35.0133

Imam, A. Y. (2021). Impact of Tooth Loss Position on Oral Health-Related Quality of Life in Adults Treated in the Community. *Journal of Pharmacy & Bioallied Sciences*, *13*(2), 969–974. https://doi.org/10.4103/jpbs.jpbs_87_21

Jenei, Á., Sándor, J., Hegedűs, C., Bágyi, K., Nagy, L., Kiss, C., et al. (2015). Oral health-related quality of life after prosthetic rehabilitation: a longitudinal study with the OHIP questionnaire. *Health and Quality of Life Outcomes*, *13*, e99. https://doi.org/10.1186/s12955-015-0289-2

Karimi, P., Zojaji, S., Fard, A. A., Nateghi, M. N., Mansouri, Z., & Zojaji, R. (2024). The impact of oral health on depression: A systematic review. *Special Care in Dentistry*, *45*(1), e13079. https://doi.org/10.1111/scd.13079

Kazuo, S. D., Ferreira, U. C., Justo, K. D., Rye, O. E., & Shigueyuki, U. E. (2008). Higienização em prótese parcial removível. *Revista de Odontologia da Universidade Cidade de São Paulo*, *20*(2), 168-174.

Kok, I. J., Cooper, L. F., Guckes, A. D., McGraw, K., Wright, R. F., Barrero, C. J., et al. (2017). Factors Influencing Removable Partial Denture Patient-Reported Outcomes of Quality of Life and Satisfaction: A Systematic Review. *Journal of Prosthodontics*, *26*(1), 5–18. https://doi.org/10.1111/jopr.12526

Koyama, S., Sasaki, K., Yokoyama, M., Sasaki, T., & Hanawa, S. (2010). Evaluation of factors affecting the continuing use and patient satisfaction with removable partial dentures over 5 years. *Journal of Prosthodontic Research*, *54*(2), 97–101. https://doi.org/10.1016/j.jpor.2009.11.007

Lazureanu, P. C., Popescu, F. G., Stef, L., Focsa, M., Vaida, M. A., & Mihaila, R. (2022). The Influence of Periodontal Disease on Oral Health Quality of Life in Patients with Cardiovascular Disease: A Cross-Sectional Observational Single-Center Study. *Medicina (Kaunas, Lithuania)*, 58(5), e584. https://doi.org/10.3390/medicina58050584

Lee, H., Kim, D., Jung, A., & Chae, W. (2022). Ethnicity, Social, and Clinical Risk Factors to Tooth Loss among Older Adults in the U.S., NHANES 2011-2018. *International Journal of Environmental Research and Public Health*, *19*(4), e2382. https://doi.org/10.3390/ijerph19042382

Mamdouh, R. I., El-Sherbini, N. N., & Mady, Y. O. (2019). Treatment Outcomes Based on Patient's Oral Health Related Quality of Life (OHRQoL) after Receiving Conventional Clasp or Precision

Attachment Removable Partial Dentures in Distal Extension Cases: A Randomized Controlled Clinical Trial. *Brazilian Dental Science*, *22*(4), 528–537. https://doi.org/10.14295/bds.2019.v22i4.1819

Mariano, C. J. D., Silva, R. B, Sá, J. R. S., Torres, K. M. B., Andrade, J. M., Dias, J. N., et al. (2024). Perfil epidemiológico e análise da qualidade de vida de usuários de prótese dentária da Clínica Escola de Odontologia do Centro Universitário Unifip. *Revista Sul-Brasileira de Odontologia*, *21*(2), 382–389. https://doi.org/10.21726/rsbo.v21i2.2530

McKenna, G., Allen, P. F., Hayes, M., DaMata, C., Moore, C., & Cronin, M. (2018). Impact of oral rehabilitation on the quality of life of partially dentate elders in a randomised controlled clinical trial: 2 year follow-up. *PloS One*, 13(10), e0203349. https://doi.org/10.1371/journal.pone.0203349

Mendonça, C. C. G., Nogueira, T. E., Moreira, F. D. C. L., Jordão, L. M. R., McKenna, G., & Leles, C. R. (2024). Prolonged use of old dentures: A qualitative study with Brazilian older adults. *Gerodontology*, 42(2), 225–232. https://doi.org/10.1111/ger.12787

Molania, T., Shafaroudi, A. M., Taghavi, M., Ehsani, H., Moosazadeh, M., Haddadi, A., et al. (2021). Oral health-related quality of life (OHRQoL) in cardiovascular patients referring to Fatima Zahra Hospital in Sari, Iran. *BMC Oral Health*, 21(1), e391. https://doi.org/10.1186/s12903-021-01756-0

Mousa, M. A., Abdullah, J. Y., Jamayet, N. B., El-Anwar, M. I., Ganji, K. K., Alam, M. K., et al. (2021). Biomechanics in Removable Partial Dentures: A Literature Review of FEA-Based Studies. *BioMed Research International*, e5699962. https://doi.org/10.1155/2021/5699962

Nogueira, C. M. R., Falcão, L. M. N., Nuto, S. A. S., Saintrain, M. V. L., & Vieira-Meyer, A. P. G. F. (2017). Self-perceived oral health among the elderly: a household-based study. *Revista Brasileira de Geriatria e Gerontologia*, 20(1), 7–19. https://doi.org/10.1590/1981-22562017020.160070

Oliveira, L. F. S., Wanderley, R. L., Araújo, E. C. F., Medeiros, M. M. D., Figueredo, O. M. C., Pinheiro, M. A., et al. (2021). Factors associated with oral health-related quality of life of institutionalized elders. *Brazilian Oral Research*, 35, e015. https://doi.org/10.1590/1807-3107bor-2021.vol35.0015

Pavani, N. P. M., Pachava, S., Sultana, S. P., Ravoori, S., Rajasekhar, P., & Talluri, D. (2024). Impact of diabetes mellitus and other systemic diseases on oral health and tooth mortality. *Journal of Family Medicine and Primary Care*, 13(1), 363–367. https://doi.org/10.4103/jfmpc.jfmpc_1000_23

Peršić, S., & Čelebić, A. (2015). Influence of different prosthodontic rehabilitation options on oral health-related quality of life, orofacial esthetics and chewing function based on patient-reported outcomes. *Quality of Life Research*, 24(4), 919–926. https://doi.org/10.1007/s11136-014-0817-2

Petry, J., Lopes, A. C., & Cassol, K. (2019). Autoperception of food conditions of elderly dental prosthetic users. *CoDAS*, *31*(3), e20180080. https://doi.org/10.1590/2317-1782/20182018080

Pommer, B. (2013). Use of the Oral Health Impact Profile (OHIP) in Clinical Oral Implant Research. *Journal of Dental, Oral and Craniofacial Epidemiology*, 1(3), 3-10.

Sabiá, A. F. O., & Lopes, A. A. (2022). Avaliação da qualidade de vida dos pacientes usuários de próteses parciais fixas. Fortaleza. Undergraduate Thesis (Bachelor's Degree in Dentistry). Christus University Center.

Saintrain, M. V. L., Bezerra, T. M. M., Santos, F. D. S., Saintrain, S. V., Pequeno, L. L., Silva, R. M., et al. (2018). Subjective well-being and oral discomfort in older people. *International Psychogeriatrics*, *30*(10), 1509–1517. https://doi.org/10.1017/S1041610218000145

Salazar, S., Hasegawa, Y., Kikuchi, S., Kaneda, K., Yoneda, H., Nokubi, T., et al. (2021). The impact of a newly constructed removable denture on the objective and subjective masticatory function. *Journal of Prosthodontic Research*, *65*(3), 346–352. https://doi.org/10.2186/jpr.JPR_D_20_00045

Sfeatcu, R., Balgiu, B. A., Mihai, C., Petre, A., Pantea, M., & Tribus, L. (2022). Gender Differences in Oral Health: Self-Reported Attitudes, Values, Behaviours and Literacy among Romanian Adults. *Journal of Personalized Medicine*, *12*(10), e1603. https://doi.org/10.3390/jpm12101603

Shala, K. S., Dula, L. J., Pustina-Krasniqi, T., Bicaj, T., Ahmedi, E. F., Lila-Krasniqi, Z., et al. (2016). Patient's Satisfaction with Removable Partial Dentures: A Retrospective Case Series. *The Open Dentistry Journal*, *10*, 656–663. https://doi.org/10.2174/1874210601610010656

Silva, M. A., Batista, A. U. D., Abreu, M. H. N. G., & Forte, F. D. S. (2019). Oral Health Impact Profile: need and use of dental prostheses among Northeast Brazilian independent-living elderly. *Ciência & Saúde Coletiva*, *24*(11), 4305–4312. https://doi.org/10.1590/1413-812320182411.32472017

Silva-Lovato, C. H., Paranhos, H. F. O., Mello, P. C., Cruz, P. C., Freitas, K. M. & Macedo, L. D. (2006). Rising of the instructions degree and of materials and methods of hygiene used by complete dentures users. *Revista de Odontologia da UNESP*, *35(*2), 125-131.

Slade, G. D. (1997) Measuring oral health and quality of life. Chapel Hill: Department of Dental Ecology, School of Dentistry, University of North Carolina.

Slade, G. D., & Spencer, A. J. (1994) Development and evaluation of the oral health impact profile. *Community Dental Health*, *11*(1), 3-11. https://pubmed.ncbi.nlm.nih.gov/8193981

Slowik, J., Kaczynski, L., Kaczor, M., & Wnuk, M. (2025). Oral health-related quality of life in patients with type II diabetes mellitus: a systematic review and meta-analysis. *BMC Oral Health*, *25*(1), e485. https://doi.org/10.1186/s12903-025-05882-x

Soboleva, U., & Rogovska, I. (2022). Edentulous Patient Satisfaction with Conventional Complete Dentures. *Medicina (Kaunas, Lithuania)*, *58*(3), e344. https://doi.org/10.3390/medicina58030344

Strauss, R. P., & Hunt, R. J. (1993). Understanding the value of teeth to older adults: influences on the quality of life. *Journal of the American Dental Association*, *124*(1), 105–110. https://doi.org/10.14219/jada.archive.1993.0019

Sundaram, M., Manikandan, S., Satheesh, B., Srinivasan, D., Jayapal, D., & Kumar, D. (2020). Comparative Evaluation of Xerostomia among Diabetic and Nondiabetic Subjects Wearing Complete Denture. *Journal of Pharmacy & Bioallied Sciences*, *12*(1), 419–422. https://doi.org/10.4103/jpbs.JPBS_124_20

Tabassum, A. (2022). Alveolar Bone Loss in Diabetic Patients: A Case-Control Study. *European Journal of Dentistry*, 18(1), 168–173. https://doi.org/10.1055/s-0042-1758071

Takeuchi, N., Sawada, N., Ekuni, D., & Morita, M. (2023). Association between oral condition and subjective psychological well-being among older adults attending a university hospital dental clinic: A cross-sectional study. *PloS One*, *18*(11), e0295078. https://doi.org/10.1371/journal.pone.0295078

Tanaka, A., Kellesarian, S. V., & Arany, S. (2021). Xerostomia and patients' satisfaction with removable denture performance: systematic review. *Quintessence International (Berlin, Germany)*, *52*(1), 46–55. https://doi.org/10.3290/j.qi.a45427

Tavares, D. G. M., Marques, L. A. R. V., Rodrigues-Neto, E. M., Silva, P. G. B., & Fiallos, A. C. M. (2016). Avaliação de Hábitos de Higiene Bucal e Satisfação em Usuários de Prótese Parcial Removível. *Saúde e Pesquisa*, *9*(2), 317–323. https://doi.org/10.17765/1983-1870.2016v9n2p317-323

Techapiroontong, S., & Limpuangthip, N. (2024). Oral health-related quality of life and reasons for discontinuing partial removable dental prosthesis usage: a cross-sectional study with one to seven years of follow-up. *BMC Oral Health*, *24*(1), e355. https://doi.org/10.1186/s12903-024-04114-y

Techapiroontong, S., Limpuangthip, N., Tumrasvin, W., & Sirotamarat, J. (2022). The impact of poor dental status and removable dental prosthesis quality on body composition, masticatory performance and oral health-related quality of life: a cross-sectional study in older adults. *BMC Oral Health*, *22(*1), 147. https://doi.org/10.1186/s12903-022-02103-7

Turker, S. B., Sener, I. D., & Özkan, Y. K. (2009). Satisfaction of the complete denture wearers related to various factors. *Archives of Gerontology and Geriatrics*, *49*(2), 126–129. https://doi.org/10.1016/j.archger.2008.11.003

Veeraboina, N., Doshi, D., Kulkarni, S., Patanapu, S. K., Dantala, S. N., & Srilatha, A. (2022). Tooth loss and oral health-related quality of life among adult dental patients: A cross-sectional study. *Indian Journal of Dental Research*, *33*(1), 2–6. https://doi.org/10.4103/ijdr.IJDR_426_19

Vettore, M. V., Vieira, J. M. R., Gomes, J. F. F., Martins, N. M. O., Freitas, Y. N. L., Lamarca, G. A., et al. (2020). Individual and City Level Socioeconomic Factors and Tooth Loss among Elderly People: A Cross-Level Multilevel Analysis. *International Journal of Environmental Research and Public Health*, 17(7), e2345. https://doi.org/10.3390/ijerph17072345

Vieira, B. L. C., Morais, L. P., Vargas-Ferreira, F., Guimarães, M. R. C., Mattos, F. F., & Vargas, A. M. D. (2021). Use and need of removable dental prostheses in an institutionalized Brazilian elderly population: a cross-sectional study. *Brazilian Oral Research*, 35, e134. https://doi.org/10.1590/1807-3107bor-2021.vol35.0134

Ware-Jr, J. E., & Sherbourne, C. D. (1992). The MOS 36-item short-form health survey (SF-36). I. Conceptual framework and item selection. *Medical Care*, 30(6), 473–483. https://pubmed.ncbi.nlm.nih.gov/1593914

Weber, S., Hahnel, S., Nitschke, I., Schierz, O., & Rauch, A. (2021). Older Seniors during the COVID-19 Pandemic-Social Support and Oral Health-Related Quality of Life. *Healthcare (Basel, Switzerland)*, 9(9), e1177. https://doi.org/10.3390/healthcare9091177

Yoshimoto, T., Hasegawa, Y., Salazar, S., Kikuchi, S., Hori, K., & Ono, T. (2021). Factors Affecting Masticatory Satisfaction in Patients with Removable Partial Dentures. *International Journal of Environmental Research and Public Health*, 18(12), e6620. https://doi.org/10.3390/ijerph18126620

Zhang, Q., Witter, D. J., Gerritsen, A. E., Bronkhorst, E. M., & Creugers, N. H. (2013). Functional dental status and oral health-related quality of life in an over 40 years old Chinese population. *Clinical Oral Investigations*, *17*(6), 1471–1480. https://doi.org/10.1007/s00784-012-0834-x

Peer-review history:
The peer review history for this paper can be accessed here:
https://pr.sdiarticle5.com/review-history/143832