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The Impact of Prosthetic Use on Oral Health-Related Quality of Life in Elderly Individuals

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The Impact of Prosthetic Use on Oral Health-Related Quality of Life in Elderly Individuals

Yaşlı Bireylerde Protez Kullanımının Ağız Sağlığı ile İlgili Yaşam Kalitesine Etkisi

ABSTRACT

Objectives:

The primary objective of this investigation was to assess the influence of oral health on the quality of life among elderly individuals utilizing prosthetic devices, employing the OHIP-14-TR questionnaire, with particular emphasis on the physical, psychological, and social dimensions within the context of Eastern Anatolia.

Material and Methods

This research was executed at the Prosthetic Department of Ataturk University Dental Faculty, encompassing a cohort of 100 geriatric patients aged 65 years and above. All subjects were recipients of prosthetic teeth, which included total, partial, fixed, or removable dentures. The OHIP-14-TR questionnaire was administered to evaluate oral health-related quality of life (OHRQoL). The process of collecting data began in January 2024, and statistical scrutiny was undertaken using IBM SPSS Statistics v23.0, with the significance threshold determined at $P < 0.05$.

Results

The most elevated mean scores were recorded in the domains of physical pain (OHIP Q4: 1.57 ± 1.41) and psychological discomfort. The Pearson correlation analysis revealed significant associations between physical pain and psychological discomfort ($r = 0.645$, $P < 0.01$), underscoring their contributory roles in shaping OHRQoL. Ill-fitting prostheses were correlated with heightened levels of both physical and psychological discomfort, adversely impacting the quality of life of the participants.

Conclusion

The findings of this study indicated that physical pain and psychological discomfort emerged as the most significantly affected domains among elderly prosthetic users, exerting a profound influence on their OHRQoL. The necessity for adequate prosthetic rehabilitation is imperative to enhance oral functionality, mental health, and social welfare. The outcomes emphasize the essential role of tackling both the bodily and emotional elements in looking after elderly individuals with prosthetic needs.

Key Words

Oral health-related quality of life (OHRQoL), Prosthetic rehabilitation, Elderly patients, OHIP-14-TR Questionnaire, Physical pain, Psychological discomfort, Dental prostheses

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ÖZ

Amaç

Bu araştırmanın temel amacı, OHIP-14-TR anketi kullanılarak protez cihazları kullanan yaşlı bireylerde ağız sağlığının yaşam kalitesi üzerindeki etkisini değerlendirmekti. Çalışmada, özellikle Doğu Anadolu bağlamında fiziksel, psikolojik ve sosyal boyutlara odaklanılmıştır.

Gereç ve Yöntemler

Araştırma, Atatürk Üniversitesi Diş Hekimliği Fakültesi Protetik Diş Tedavisi Anabilim Dalı'nda yürütülmüş ve 65 yaş ve üzeri 100 geriatrik hastayı kapsamıştır. Tüm katılımcılar, tam, parsiyel, sabit veya hareketli protez gibi protez diş kullanıcılarından oluşmuştur. Katılımcılarda ağız sağlığı ile ilgili yaşam kalitesini değerlendirmek için OHIP-14-TR anketi uygulanmıştır. Veri toplama süreci Ocak 2024'te başlamış ve istatistiksel analiz IBM SPSS Statistics v23.0 kullanılarak gerçekleştirilmiş, anlamlılık düzeyi $P < 0.05$ olarak belirlenmiştir.

Bulgular

En yüksek ortalama skorlar, fiziksel ağrı (OHIP Q4: 1.57 ± 1.41) ve psikolojik rahatsızlık alanlarında kaydedilmiştir. Pearson korelasyon analizi, fiziksel ağrı ile psikolojik rahatsızlık arasında anlamlı ilişkiler olduğunu ortaya koymuştur ($r = 0.645$, $P < 0.01$), bu alanların OHRQoL üzerindeki şekillendirici rollerini vurgulamaktadır. Uygun olmayan protezler, hem fiziksel hem de psikolojik rahatsızlık seviyelerinde artışla ilişkilendirilmiş ve katılımcıların yaşam kalitesini olumsuz yönde etkilemiştir.

Sonuç

Bu çalışmanın bulguları, yaşlı protez kullanıcıları arasında fiziksel ağrı ve psikolojik rahatsızlığın en çok etkilenen alanlar olduğunu ve OHRQoL üzerinde derin bir etkiye sahip olduğunu göstermiştir. Yeterli protez rehabilitasyonu, ağız fonksiyonelliğini, ruh sağlığını ve sosyal refahı artırmak için gereklidir. Bu sonuçlar, protez gereksinimi olan yaşlı bireylerin bakımında hem bedensel hem de duygusal unsurların ele alınmasının temel bir öneme sahip olduğunu vurgulamaktadır.

Anahtar Sözcükler

Ağız sağlığı ile ilgili yaşam kalitesi (OHRQoL), Protez rehabilitasyonu, Yaşlı hastalar, OHIP-14-TR anketi, Fiziksel ağrı, Psikolojik rahatsızlık, Diş protezleri.

INTRODUCTION

Older adults frequently encounter dental caries, periodontal diseases, and tooth loss, which are exacerbated by chronic illnesses and cognitive impairments. These conditions are often neglected due to limited healthcare access and awareness (1). The use of multiple medications to manage comorbidities in older adults can lead to adverse oral health effects, such as dry mouth and oral mucosal diseases, complicating their oral health management (2). In low- and middle-income countries, socioeconomic factors significantly hinder access to oral healthcare. High out-of-pocket costs and inadequate public health policies contribute to the neglect of oral health in the elderly (3). Oral health issues can impair basic functions such as eating, speaking, and social interaction, leading to reduced quality of life and increased social isolation among the elderly (4). The COVID-19 pandemic has further exacerbated these challenges by increasing the reluctance of older adults to seek healthcare, including dental services, due to fear of infection and prolonged social isolation (1). Tooth loss in elderly patients can significantly impair chewing and speech. Implant-supported prostheses, such as fixed dental prostheses, are highly successful in restoring these functions. They provide improved chewing ability and speech, leading to enhanced patient satisfaction and quality of life (5). Proper design and placement of implants are crucial for functional success. Considerations such as implant distribution, angulation, and occlusal adjustments ensure balanced load distribution and minimize mechanical complications (6). Elderly individuals often experience self-consciousness due to oral health issues, particularly when using prostheses. This can lead to social withdrawal and isolation, as they may feel embarrassed about their appearance or speech difficulties (7).

The use of removable dentures has been associated with increased self-consciousness, as they can cause discomfort and affect speech, and further discouraging social interactions. There is a strong link between oral health problems and depression among the elderly. Studies have shown that difficulties with dental prostheses can increase the risk of depression, highlighting the need for integrated healthcare approaches that address both oral and mental health (8). Depressive symptoms are more prevalent among those with poor oral health, and these individuals often report lower life satisfaction and trust in their communities, which can exacerbate feelings of isolation (9). Oral health issues can significantly reduce the quality of life for elderly individuals. Poor oral health is associated with lower self-esteem and increased anxiety, which can limit social interactions and contribute to a cycle of isolation and mental health decline (10). The psychosocial profiles of older adults reveal that those with fewer resources and higher psychosocial risk factors are more likely to be edentulous and have infrequent dental visits, further impacting their quality of life (11).

The Turkish version of OHIP-14 was used to assess the impact of malocclusion on OHRQoL, further demonstrating its versatility and cultural adaptability (11). The OHIP-14 is particularly useful for older adults, who often experience a range of oral health issues. A systematic review highlighted the OHIP as one of the top instruments for assessing OHRQoL in older adults, due to its comprehensive conceptual and measurement model (12). The influence of socio-economic and cultural factors on prosthetic needs and OHRQoL remains underexplored, as indicated by the general call for more nuanced research in the field (13).

Current research on the oral health-related quality of life (OHRQoL) of elderly prosthetic users has largely focused on general populations or specific clinical settings, with limited studies examining localized contexts such as Eastern Anatolia. In this region, where socioeconomic and cultural factors may differ significantly from other areas, there is a gap in understanding how these factors impact the quality of life for elderly individuals using dental prostheses. Additionally, most studies do not thoroughly assess the specific psychosocial challenges, such as depression or social isolation, that prosthetic users in these areas may experience. This study aims to address these gaps by evaluating the OHRQoL of elderly prosthetic users in Eastern Anatolia using the OHIP-14-TR. It seeks to provide insight into how physical, psychological, and social dimensions of oral health affect the daily lives of this population, offering localized data that could help improve prosthetic care and overall well-being for elderly patients in the region.

MATERIAL and METHODS

The study was conducted in the Prosthetic Department of Ataturk University Dental Faculty. The questionnaire was distributed to geriatric patients (aged 65 and older). While the gender of the patients was not considered during distribution, it was considered during the systemic analysis. All participants were required to use prosthetic teeth, which could be total or partial, fixed, or removable. The questionnaire used was the revised OHIP-14-TR, distributed to patients starting from the beginning of 2024. To avoid discrepancies and invalid responses, more than 100 questionnaires were distributed. If any questionnaire was found insufficient during the systemic analysis, an additional one was distributed. Each participant was required to sign an approval form, providing consent for their participation in the study. Ethical approval for the study was obtained from the Ethics Department of Ataturk University, in accordance with the Helsinki Declaration of Ethical Standards.

The OHIP-14 is a validated and reliable questionnaire that covers seven core dimensions: functional limitation, physical pain, psychological discomfort, physical disability, psychological disability, social disability, and handicap. All items are scored using a Likert scale ranging from 0 (very positive) to 4 (very negative). The total score can range from 0 (indicating perfect quality of life) to 56 (indicating the most severe negative impact). Participants responded based on the frequency of their experiences; Very often = 4, Fairly often = 3, Occasionally = 2, Hardly ever = 1, Never = 0

After data collection, the responses were analyzed using IBM SPSS Statistics v23.0 (IBM Corp). Statistical significance was set at a p-value of 0.05.

RESULTS

This study evaluated the impact of oral health on the quality of life of 100 geriatric patients using the OHIP-14-TR questionnaire. The following results provide a detailed summary of the average scores for each dimension and key relationships. The mean scores and standard deviations for the OHIP-14 items are presented in Table 1. The highest mean score was found in the physical pain domain for OHIP Q4 (1.57 ± 1.41), indicating discomfort while eating. In contrast, the lowest mean score was observed in the social disability domain for OHIP Q11 (0.57 ± 1.08), reflecting low levels of irritability in social interactions. The overall mean OHIP-14 score was 14.93 ± 11.69, indicating a moderate negative impact of oral health on the participants' quality of life. The frequency distribution of responses to the OHIP-14 items is provided in Table 2. For functional limitations, 51% of participants reported no difficulty pronouncing words, while 19% reported occasional difficulty. Regarding physical pain, 31% of participants reported no discomfort while eating, whereas 14% experienced discomfort often. The results of the Pearson correlation analysis between the OHIP-14 dimensions are shown in Table 3. A positive significant correlation was found between functional limitations (FL) and physical pain (PP) ($r = 0.488$, $P < 0.01$). Similarly, a strong correlation was observed between physical pain (PP) and psychological discomfort (PSD) ($r = 0.645$, $P < 0.01$). These findings suggest that higher levels of physical pain are associated with increased psychological discomfort. The correlations between the OHIP-14 dimensions were found to be statistically significant ($P < 0.01$). The strong relationship between physical pain and psychological discomfort indicates that these two dimensions are key determinants of the patients' quality of life.

Table 1. Mean score of the individual and overall OHIP14 items of the participants.

OHIP-14 Domains	OHIP-14 Items	Mean ± SD
Functional Limitations	OHIP Q1	0.90 ± 1.09
	OHIP Q2	1.14 ± 1.39
Physical Pain	OHIP Q3	1.36 ± 1.31
	OHIP Q4	1.57 ± 1.41
Physical Disability	OHIP Q5	1.35 ± 1.32
	OHIP Q6	1.24 ± 1.22
Psycological Discomfort	OHIP Q7	1.21 ± 1.45
	OHIP Q8	1.00 ± 1.36
Psycological Disability	OHIP Q9	1.30 ± 1.36
	OHIP Q10	0.80 ± 1.26
Social Disability	OHIP Q11	0.57 ± 1.08
	OHIP Q12	0.73 ± 1.15
Handicap	OHIP Q13	1.04 ± 1.27
	OHIP Q14	0.72 ± 1.14
	Overall OHIP-14	14.93 ± 11.69

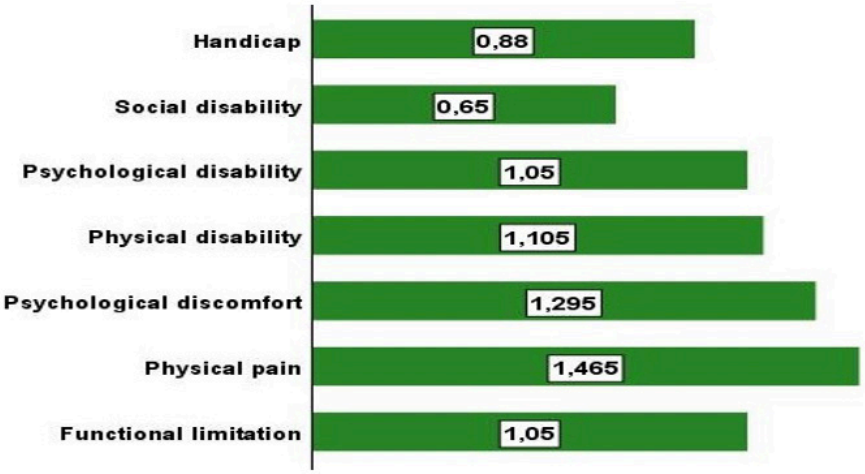

Figure 1. Mean Oral Health Impact Profile 14 (OHIP-14) score by dimensions in the studysample (n = 100). The highest mean scores were observed for the dimensions physical pain and psychological discomfort

Table 2. Frequency of responses to items in the Oral Health Impact Profile 14 (OHIP-14) in the study sample.

Dimension	Item	n (%)				
		Never (OHIP-14 = 0)	Hardly Ever (OHIP-14 = 1)	Occasionally (OHIP-14 = 2)	Fairly Often (OHIP-14 = 3)	Very Often (OHIP-14 = 4)
Functional limitations	Trouble pronouncing words	51	20	19	8	2
	Worsened sense of taste	53	8	20	10	9
Physical pain	Painful aching in mouth	37	18	26	10	9
	Uncomfortable to eat food	31	23	18	14	14
Psychological discomfort	Being self-conscious	32	35	8	16	9
	Feeling tense	36	28	17	14	5
Physical disability	Unsatisfactory diet	51	13	10	16	10
	Interrupting meals	57	13	11	11	8
Psychological disability	Difficulty relaxing	41	19	19	11	10
	Embarrassed	64	13	8	9	6
Social disability	Irritable with other people	69	20	1	5	5
	Difficulty doing usual jobs	64	14	11	7	4
Handicap	Life less satisfying	50	16	22	4	8
	Unable to function	63	18	7	8	4

Table 3. Correlations amound the groups.

		FL	PP	PD	PSD	PSDIS	SD	H
FL	Pearson Correlation	1	,488**	,289**	,489**	,394**	,227*	,371**
	Sig. (2-tailed)		,000	,004	,000	,000	,023	,000
	N	100	100	100	100	100	100	100
PP	Pearson Correlation	,488**	1	,433**	,645**	,657**	,444**	,521**
	Sig. (2-tailed)	,000		,000	,000	,000	,000	,000
	N	100	100	100	100	100	100	100
PD	Pearson Correlation	,289**	,433**	1	,362**	,329**	,456**	,516**
	Sig. (2-tailed)	,004	,000		,000	,001	,000	,000
	N	100	100	100	100	100	100	100
PSD	Pearson Correlation	,489**	,645**	,362**	1	,677**	,577**	,641**
	Sig. (2-tailed)	,000	,000	,000		,000	,000	,000
	N	100	100	100	100	100	100	100
PSDIS	Pearson Correlation	,394**	,657**	,329**	,677**	1	,568**	,612**
	Sig. (2-tailed)	,000	,000	,001	,000		,000	,000
	N	100	100	100	100	100	100	100
SD	Pearson Correlation	,227*	,444**	,456**	,577**	,568**	1	,747**
	Sig. (2-tailed)	,023	,000	,000	,000	,000		,000
	N	100	100	100	100	100	100	100
H	Pearson Correlation	,371**	,521**	,516**	,641**	,612**	,747**	1
	Sig. (2-tailed)	,000	,000	,000	,000	,000	,000	
	N	100	100	100	100	100	100	100

**. Correlation is significant at the 0.01 level (2-tailed), *. Correlation is significant at the 0.05 level (2-tailed).

DISCUSSION

This study evaluated the impact of oral health on the quality of life (OHRQoL) in elderly prosthetic users using the OHIP-14-TR questionnaire. Our findings revealed that physical pain and psychological discomfort had the most significant negative impact on patients (Figure 1). These results suggest that prosthetic use affects not only oral health but also overall quality of life and mental well-being.

These findings are consistent with those from other studies where the OHIP-14 has been applied across different populations. OHIP-14 has proven to be a reliable tool in terms of psychometric properties across various cultural backgrounds. For instance, the Indonesian version of the OHIP-14 demonstrated high reliability, with a Cronbach's alpha of 0.960, when used to assess OHRQoL among populations such as those living with HIV/AIDS (14). Similarly, the Chinese version showed good reliability (Cronbach's $\alpha = 0.942$) and suitability for both clinical and non-clinical samples (15).

Further confirmation of OHIP-14's reliability for evaluating OHRQoL in older adults comes from a systematic review. While the review acknowledged the strong conceptual and measurement models of the OHIP-14, it also identified some limitations related to responsiveness and interpretability (12). This supports the use of OHIP-14 in our study for evaluating OHRQoL among elderly prosthetic users.

The significant impact of oral health on the quality of life of the elderly has also been confirmed in various studies. For example, a study conducted among older populations found that health insurance and socioeconomic status are crucial determinants of OHRQoL (16). In our study, physical pain emerged as one of the most affected domains, which aligns with findings from another study where physical pain was reported as the most impacted domain among elderly participants (17).

The adaptation and validation of the OHIP-14 across different cultural contexts have enhanced its applicability. For instance, the Spanish version of OHIP-14 demonstrated a unidimensional structure and adequate sensitivity to change, making it suitable for evaluating prosthetic treatment (18).

HRQoL is significantly affected by the use of dental prostheses. While dental prostheses offer functional and aesthetic benefits, they also introduce challenges. Research shows that individuals using prostheses are three times more likely to report negative impacts on oral health due to issues such as xerostomia (dry mouth) and discomfort[19]. Poorly fitted prostheses have been linked to increased physical pain and psychological distress, emphasizing the importance of proper fitting and maintenance (20).

Interestingly, implant-supported prosthetic interventions have been found to significantly improve OHRQoL. Studies indicate that these interventions reduce the likelihood of poor quality of life and greatly enhance aesthetic satisfaction (21). Moreover, the quality and retention of dental prostheses are critical determinants of OHRQoL outcomes. Poorly fitted prostheses are associated with lower OHRQoL scores, highlighting the importance of stable

and well-fitted prosthetic devices (22). Implant-supported prostheses, such as overdentures or fixed prostheses, offer superior functionality and aesthetics compared to conventional prostheses and should be considered for long-term patient satisfaction and quality of life improvements.

In addition to improving oral function, prosthetics also play an essential role in social activities among elderly patients. Improved oral function and aesthetics have been linked to better social interactions, especially in relation to participation in community activities. Prosthetic rehabilitation has also been associated with increased social activity and improved eating behavior in nursing home environments (23). Furthermore, chewing performance, influenced by the quality of prosthetics, is considered crucial for nutritional intake and overall physical well-being (24).

Oral health significantly impacts the social and psychological well-being of elderly individuals. Many elderly people are hindered by oral health problems, which often lead to social withdrawal and reduced participation in social interactions (25). Missing teeth and gum disease not only causes speech and facial aesthetic problems but also lower self-confidence and create social challenges. This can lead to avoiding conversations or public speaking, further limiting social circles (26).

Oral health problems often lead to dietary restrictions, as elderly individuals tend to avoid foods that are difficult to chew or swallow. These issues can result in nutritional deficiencies, which negatively affect overall health and quality of life (13). Another element that may be adversely impacted by such experiences is the social experience of shared meals, which holds significant cultural and social value for many (27).

Poor oral health also has psychological effects on elderly individuals, causing increased stress, anxiety, and depression (28). This can be further linked to the stigma associated with poor oral health, which becomes more severe in institutional settings with limited social interactions, leading to increased feelings of isolation and loneliness (29).

Prosthetic treatment, particularly dental prosthetics, has helped improve self-esteem and quality of life for geriatric patients. For instance, elderly hemodialysis patients who underwent dental prosthetic treatment reported improvements in self-esteem and quality of life, as measured by the SF-36 and OHIP-14 scales (30). Research also supports that prosthetic rehabilitation is associated with positive impacts on OHRQoL in elderly patients, with many reporting no negative effects after treatment (31). While our study did not directly assess post-treatment changes, the high scores observed in these areas highlight the need to consider OHRQoL during prosthetic rehabilitation.

Depression remains a significant issue among elderly prosthetic users. A study investigating depressive symptoms in patients over 65 using removable dentures found evidence of a strong relationship between oral health problems and depression, particularly in the presence of prosthetic inflammation and dry mouth (32). Our findings align with these results, as psychological discomfort emerged as a significant domain in the OHIP-14 responses. Managing dry mouth (xerostomia) in elderly prosthetic users can enhance comfort and OHRQoL. The use of saliva substitutes or stimulants should be considered as part of the treatment plan.

This observation is supported by various studies showing that prosthetic users - whether or not they have undergone limb amputation - often experience low self-esteem and high levels of depression, anxiety, and stress, underscoring the need for psychological support alongside prosthetic use (33). This is consistent with the emotional distress observed in elderly dental prosthetic users, which impacts their social interactions and psychological well-being. The same logic applies to limb prosthetic users, who reported improved body image, psychological well-being, and reduced physical self-disgust. Similar improvements in body image can be inferred from enhanced oral aesthetics in our participants (34). Additionally, studies on ocular prosthetics have shown that concerns about social settings and appearance are significant predictors of depression, anxiety, and stress. This indicates that the social acceptance of prosthetic users plays a broader role in their psychological adjustment (35).

Social inclusion and support are among the most critical determinants of oral health for elderly individuals. Low levels of social support and participation have been linked to poorer self-reported oral health among the elderly (36). In our study, physical and psychological discomfort, partially explained by the lack of social participation, were the dominant issues. Social interactions are important determinants for better OHRQoL. The COVID-19 pandemic exacerbated these issues, as social distancing led to reduced social support, negatively impacting the oral health of older adults and resulting in worse OHRQoL (37).

Elderly adults often have different perceptions of oral health, viewing it as an integral part of their overall well-being. For many, maintaining a clean mouth and a beautiful smile is essential, reflecting a holistic understanding of oral health that goes beyond basic functionality (38). However, there is also a stoic independence among older adults, where they minimize or deny oral health issues due to past experiences of pain and suffering (39). This aligns with the psychological discomfort reported in our study, as elderly individuals may have underreported the severity of their oral health issues despite experiencing high levels of physical discomfort. Treatment plans for elderly prosthetic users should integrate both physiological and psychological assessments. Addressing psychological distress, such as anxiety or depression, is essential to improve patient outcomes.

Some of the key social determinants affecting oral health among the elderly include economic status, education, and social support. These factors often result in cumulative disadvantages throughout life, leading to greater oral health inequalities in older adults (40). Such social determinants may have influenced the elderly participants in our study, particularly those reporting higher levels of physical pain, and may explain the high scores in the OHIP-14 domains related to physical and psychological discomfort. The social environment in which elderly individuals live is also shaped by their cultural background and social networks, influencing their oral health behaviors and access to care (41). In our study, prosthetic rehabilitation was found to have a positive effect on social interactions, and social contact was positively associated with oral health-related quality of life (OHRQoL). Thus, improved oral function and aesthetics may increase social engagement, which, in turn, positively impacts oral health.

From a broader perspective, the social understanding of disability highlights the leading role that societal structures and expectations play in defining disability. In the context of oral health, this perspective emphasizes how social barriers, such as limited access to care and social exclusion, contribute to the perception of disability among elderly individuals (42). Social expectations regarding oral health also change with age, with older adults having different expectations for dental care compared to younger populations. These differences can influence the use of dental services and perceptions of quality of life (43). A reasonable explanation for the lower levels of social disability reported by some elderly participants in our study may be that their expectations for oral health care differ from those of younger adults.

Systematic reviews have shown that while conventional dentures improve OHRQoL, the improvements are greater with implant-supported prostheses. For instance, OHIP scores improved by 9.21-12.5% with conventional dentures, whereas implant overdentures and full-arch fixed prostheses showed improvements ranging from 9-25.26% and 18.53-26.79%, respectively, over 18 months (21). Similarly, our study emphasized the role of prosthetic rehabilitation in improving OHRQoL, significantly reducing physical pain and psychological discomfort. However, we did not analyze specific types of prostheses in this study.
A meta-analysis also found weak but statistically significant correlations between OHRQoL and psychological factors such as anxiety and depression, suggesting that psychological issues can influence an individual's quality of life related to oral health (44). In our study, psychological discomfort was identified as one of the key domains, reflecting the connection between oral health and mental well-being. Addressing psychological factors alongside the physical aspects of oral health may be critical for improving overall OHRQoL in elderly populations.

In the presence of oral health problems, elderly individuals often experience poor outcomes in terms of mental and social well-being (45). Our findings support this. poorly fitting prostheses and xerostomia were associated with greater physical discomfort and psychological distress, resulting in lower quality of life among the elderly participants. Previous studies have also shown that elderly prosthetic users are three times more likely to report negative impacts on oral health, emphasizing the importance of proper prosthetic maintenance and fitting (46).

The condition of the prosthesis plays a critical role in determining OHRQoL. Poor stability, retention issues, and defects in prostheses are associated with lower quality of life scores (22), as observed in both our study and previous research. Ensuring that prostheses are well-fitted and stable is essential for improving the daily lives and well-being of elderly individuals, both functionally and aesthetically. Proper fit, stability, and retention of prostheses are crucial. Poorly fitted prostheses can exacerbate physical pain and reduce OHRQoL, necessitating regular adjustments and maintenance by practitioners.

The limitation this study; The sample size was limited, restricting the generalizability of the findings to a broader elderly population. Additionally, since the study was conducted in a single center, it may not capture the diversity of elderly individuals from various regions or environments. The cross-sectional design of the study prevents the assessment of the long-term effects of prosthetic treatment on oral health-related quality of life (OHRQoL). Data were collected using the OHIP-14 questionnaire, which relies on self-reported responses, potentially introducing subjective bias if participants underreport or overreport their experiences. While prosthetic use was evaluated, the study did not differentiate between conventional and implant-supported prostheses, which could influence the outcomes. Lastly, although psychological discomfort was measured, the study did not investigate specific mental health conditions, such as anxiety or depression, which may affect perceptions of oral health.

CONCLUSION

The study demonstrated that physical pain and psychological discomfort were the most affected domains in elderly prosthetic users, significantly impacting their oral health-related quality of life (OHRQoL). The highest mean score was found in the physical pain domain for OHIP Q4 (1.57 ± 1.41), indicating discomfort while eating. In contrast, the lowest mean score was observed in the social disability domain for OHIP Q11 (0.57 ± 1.08), reflecting low levels of irritability in social interactions.
The overall mean OHIP-14 score was 14.93 ± 11.69, indicating a moderate negative impact of oral health on the participants' quality of life. Poorly fitted prostheses contribute to increased physical discomfort, psychological distress, and social isolation. Satisfactory prosthetic rehabilitation is essential not only for improving oral function but also for enhancing the mental and social well-being of elderly individuals.These findings highlight the importance of both physical and psychological aspects of treatment for elderly patients requiring prostheses.

CLINICAL IMPLICATIONS

Holistic Treatment Approach: Treatment plans for elderly prosthetic users should integrate both physiological and psychological assessments. Addressing psychological distress, such as anxiety or depression, is essential to improve patient outcomes.

Prosthetic Fit and Function: Proper fit, stability, and retention of prostheses are crucial. Poorly fitted prostheses can exacerbate physical pain and reduce OHRQoL, necessitating regular adjustments and maintenance by practitioners.

Preference for Implant-Supported Prostheses: Implant-supported prostheses, such as overdentures or fixed prostheses, offer superior functionality and aesthetics compared to conventional prostheses and should be considered for long-term patient satisfaction and quality of life improvements.

Managing Xerostomia: Managing dry mouth (xerostomia) in elderly prosthetic users can enhance comfort and OHRQoL. The use of saliva substitutes or stimulants should be considered as part of the treatment plan.

Patient Education and Social Support: Educating elderly patients on oral hygiene, prosthetic care, and the importance of regular dental check-ups can prevent complications. Encouraging the development of support networks can also improve their engagement with dental care and overall lifestyle.

Ethics Committee Approval
The study was approved by the relevant institution administration.

Author contribution statement
Concept: H.A., O.A., M.K., F.B.; Design: H.A., O.A., F.B.; Supervision: F.B.; Resources: H.A., O.A., M.K., F.B.; Materials: H.A., O.A., M.K., F.B.; Data Collection and/or Processing: H.A, O.A., M.K., F.B.; Analysis and/or Interpretation: O.A., F.B.; Literature Search: H.A., O.A., M.K.; Writing Manuscript: H.A., O.A.; Critical Review: F.B.

Informed Consent
Written informed consent was obtained from participants who participated in this study.

Conflict of Interest
The author declare that they have no conflict of interest.

Financial Disclosure
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