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## Review Article

# Quality of life after periodontal therapy

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### ABSTRACT

The aesthetics of one's face holds significant symbolic value in both public interactions and personal relationships, serving as a window through which an individual engages with the world. Any facial deformity or adverse health condition can profoundly impact both appearance and psychological well-being, leading to aesthetic concerns and affecting overall quality of life (QoL). Among oral health issues, periodontal diseases stand out as a primary cause of tooth loss, but advancements in therapy and preventive dental measures have shown promise in reducing this rate. The concept of oral health-related quality of life (OHQoL) encompasses the subjective experience of oral health from the patient's perspective. Surgical interventions for periodontal issues have been found to positively influence body image perception and self-esteem, thereby enhancing emotional, social, and mental well-being and boosting individual confidence and QoL. Examining existing evidence on potential links between periodontal health and systemic health further underscores the importance of maintaining good periodontal health for overall well-being. Achieving this goal requires a comprehensive understanding among dental practitioners of the etiology of periodontal diseases, the benefits of treatment, and the potential consequences of neglecting treatment.

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## 1. Introduction

The impact of facial appearance is profound and multifaceted, influencing various aspects of individuals' lives deeply. The undeniable influence of facial aesthetics on physical appearance alters thought processes, performance, and self-concept responses, often resulting in diminished self-confidence and changes in body image perception.<sup>1</sup> Such alterations can lead to social setbacks, including job loss, diminished status, and role changes, as well as a perceived loss of beauty and attractiveness. Consequently, improving body image perception and self-esteem becomes crucial and essential. Oral health and periodontal treatment play significant roles in enhancing individuals' self-confidence and overall quality of life (QoL).<sup>2</sup> The

facial region undergoes the majority of aesthetic and reconstructive surgical interventions, a trend that has seen gradual growth in recent years. Recent studies on QoL, particularly among individuals diagnosed with cancer, have highlighted significant psychological challenges.<sup>3</sup> Any change in body image perception resulting from facial deformity and dysfunction can adversely affect individuals greatly. Effective treatment strategies necessitate a sequence of interconnected steps, including early and precise diagnosis, comprehensive treatment, and ongoing maintenance and monitoring.<sup>4</sup> Communication skills and patient education are integral to effective therapy, especially given that early and moderate stages of the disease often present few noticeable symptoms to the patient. Accurate documentation and reporting of procedures are essential for dental insurance reimbursement, while scheduling considerations help general practice settings

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manage the increasing patient volume efficiently.<sup>5,6</sup> This article provides an overview of the impact of QoL after periodontal therapy, with the primary goal being the reduction of pathogenic bacteria burden to mitigate inflammation and disease recurrence. Emerging evidence of potential perio-systemic links underscores the importance of maintaining good periodontal health.<sup>7–9</sup> Treatment within the framework of a uniform Periodontal Treatment Protocol is optimal, emphasizing accurate diagnosis, treatment tailored to specific diagnoses, and continuous assessment and monitoring of outcomes. Additionally, adjunctive local delivery of antimicrobials should be considered greatly.<sup>10,11</sup> "Quality of life" is a critical factor, placing the patient and their perspective at the forefront. This multidimensional construct defies a definitive definition, with the World Health Organization (WHO) describing it as the individual's perception of their position in life within the cultural and value systems they inhabit, relative to their goals, expectations, standards, and concerns. Quality of life is intricately influenced by physical health, psychological state, level of independence, social relationships, and the environment, according to WHO.<sup>12</sup>

## **2. Discussion**

The present literature focuses on the often overlooked impact of oral health on individuals' overall quality of life (QoL) and how periodontal therapy affects oral health-related quality of life (OHQoL). OHQoL encompasses patients' subjective experiences of oral health and provides information to complement objective clinical parameters such as probing pocket depth (PPD) and papillary bleeding index (PBI).<sup>13</sup> A number of measuring instruments have been developed, in the form of questionnaires, for the assessment of OHQoL. Major aspects of OHQoL in these instruments are functional limitation, orofacial pain, dentofacial aesthetics and the psychosocial influence of oral health. The purpose of this article is to describe the effect of periodontal diseases and periodontal therapy on OHQoL, considering demographic factors like age, gender, and socioeconomic status.

Periodontal therapy incorporates multiple steps, such as the initial diagnosis at baseline and patient information; hygiene period (supragingival scaling); subgingival scaling and root debridement under local anaesthesia; follow-up diagnosis 6–8 weeks after treatment. Clinical parameters, such as probing pocket depth (PPD) and papillary bleeding index (PBI), are recorded at baseline and 6–8 weeks after treatment. The PPD is a clinical test to determine the coronal extension of the periodontal pocket. It defines the distance between marginal gingiva and most coronal periodontal fibres. The level of gingival inflammation was determined by the PBI. Clinical parameters like PPD and PBI are measured before and after treatment to evaluate its effectiveness.<sup>14</sup> Patient-reported outcomes are also

considered, with participants describing changes in their oral health and potential positive effects post-treatment, such as improved breath or mouth feeling.<sup>15</sup> For assessment of oral health, various questionnaire can be used. After treatment, the participants could describe changes in their oral health using the questionnaire (answer options were: 'big improvement', 'small improvement', 'equal', 'small deterioration', 'big deterioration') and possible positive effects after treatment, such as 'better feeling in mouth' or 'better breath'. Periodontitis significantly impacts QoL, influenced by various factors including social, physical, and mental aspects, as well as lifestyle choices like tobacco use and dental hygiene practices. Many other factors also influence the treatment, particularly, tooth-cleaning frequency, use of dental service, sociodemographic factors (age, gender, school education), etc. Facial aesthetic surgeries have been shown to positively affect body image perception and self-esteem, contributing to an enhanced QoL. Moreover, it is increasingly recognized that for periodontists and dental hygienists to take a biopsychosocial approach to care when considering periodontal interventions. However, information on how patients perceive periodontitis and its treatment is limited. Periodontitis therapy positively affected the OHRQoL. Ng & Leung showed an association between clinical periodontal status and OHRQoL and those patients with high/severe attachment loss scored significantly higher on the impact of oral health on their quality of life in the OHIP-14S.<sup>16</sup>

However, limited information exists on how patients perceive periodontitis and its treatment, highlighting the need for further research in this area. Unlike health educators, known as health education specialists, community health workers (CHWs) are lay people who have in-depth knowledge of the communities. Community health workers (CHWs) play a crucial role in bridging gaps between communities and healthcare professionals, particularly in underserved areas.<sup>17</sup> Their deep understanding of community needs and cultural sensitivities makes them effective in promoting oral health and managing conditions like diabetes and hypertension. Despite recommendations from organizations like the American Diabetes Association for regular dental checkups, many patients with diabetes do not receive adequate periodontal care, leading to suboptimal treatment outcomes. The American Diabetes Association recommend that patients with diabetes should take good care of their teeth and gums and should go for regular checkups every 6 months. A study found that over 70% of certified diabetes educator nurses did not provide periodontal care for diabetes patients, indicating the need for regular periodontal management.<sup>18</sup> OHQoL is often assessed using standardized questionnaires like the Oral Health Impact Profile (OHIP), which measures various domains

including functional limitation, physical and psychological discomfort, and social disability.<sup>19</sup> Such assessments help evaluate treatment outcomes and guide interventions to improve patients' oral health and overall well-being. This review speculates that periodontal care interventions can lead to improvements in patients' knowledge and attitudes toward oral health, ultimately enhancing their QoL. However, challenges exist, such as variability in the delivery of oral health instructions during treatment, which may affect patients' adherence to self-care practices. Previous research has shown that good health outcomes depend on patients' adherence to treatment regimens and their understanding of cultural and social factors influencing their health behaviors.<sup>20</sup> Empathetic and skilled CHWs can build close relationships with patients, thereby improving adherence to oral health recommendations. Additionally, tailored educational interventions can provide essential knowledge and skills to patients, complementing clinical care. Despite the potential benefits of periodontal therapy, studies have shown mixed results regarding its impact on glycemic control in patients with diabetes.<sup>21</sup> Factors like baseline glycemia, intervention methods, and duration of diabetes can influence treatment outcomes. Moreover, several limitations, such as demographic biases and maturation bias, need to be addressed in future research to ensure the validity of study findings.<sup>22</sup> Overall, various strategies are needed to reinforce positive oral health behaviors and improve QoL outcomes following periodontal therapy. This includes enhancing patient education, and addressing barriers to treatment adherence. By adopting a comprehensive approach that considers both clinical and psychosocial factors, healthcare providers can better meet the oral health needs of their patients and improve their overall well-being.

### 3. Conclusion

Aesthetic surgeries have become more popular these days due to the influence of media and societal standards. People are now consciously investing in their physical appearance because it is directly linked to their self-esteem. Individuals now attempt to slow down physical aging through aesthetic surgery, because they want to remove deformity due to trauma or periodontal diseases through reconstructive surgery. Preserving body integrity and admiration of the body has brought forward the importance of having a positive body image perception and a good quality of life. Nonsurgical methods like periodontal therapy also play an essential role in enhancing oral health and overall well-being.

In conclusion, dental treatment significantly impacts quality of life, with periodontal therapy showing promising effects on oral health-related quality of life (OHQoL). Despite challenges, interventions like community health worker engagement and patient education enhance oral

health knowledge and self-care behaviors. Further research and comprehensive strategies are essential to sustain positive outcomes and address diverse patient needs, ensuring lasting improvements in quality of life after periodontal treatment.

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### 5. Conflict of Interest

None.


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