




The Impact of Orofacial Harmonization on the Quality of Life of Dental Patients: A Longitudinal Clinical Study

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ABSTRACT

This longitudinal clinical study investigates the impact of orofacial harmonization (OFH) on the oral health-related quality of life (OHRQoL) of dental patients. While traditional dentistry focuses on functional and dental aesthetics, OFH integrates various procedures, such as botulinum toxin and dermal fillers, to achieve a more balanced facial appearance. The study aims to fill a gap in the literature by systematically assessing the subjective benefits of these treatments. A cohort of patients will be followed over a 12-month period, with data collected using validated patient-reported outcome measures, including the Oral Health Impact Profile (OHIP), at baseline, 3, 6, and 12 months post-treatment. We hypothesize that OFH procedures will lead to a significant and sustained improvement in patients' OHRQoL, particularly in psychosocial and functional domains. The findings will provide empirical evidence for the therapeutic value of OFH, contributing to the development of patient-centered treatment protocols and re-establishing these procedures as an integral part of holistic dental care.

Keywords: Orofacial Harmonization. Quality of Life. Oral Health. Longitudinal Study. Patient-Reported Outcomes. Botulinum Toxin. Dermal Fillers. OHIP.



1 INTRODUCTION

Oral health is intrinsically linked to an individual's overall well-being, influencing not only masticatory function and speech but also psychosocial factors such as self-esteem and social integration. Traditional dentistry has long focused on the restoration of dental function and aesthetics, but the emergence of orofacial harmonization (OFH) has expanded this scope to include the entire facial structure. Orofacial harmonization is a relatively new and evolving field that integrates various aesthetic and functional procedures, such as botulinum toxin and hyaluronic acid fillers, to create a more balanced and harmonious facial appearance. While the primary goal of OFH is to improve aesthetics, its potential impact on patient quality of life extends far beyond superficial changes. This longitudinal clinical study aims to investigate the profound effects of OFH on the Oral Health-Related Quality of Life (OHRQoL) of dental patients, addressing a significant gap in the current literature.

The concept of OHRQoL encompasses a range of subjective experiences, including a person's comfort while eating, their ability to communicate, their sense of well-being, and their social interactions. Prior research has consistently shown that poor oral health, including malocclusion, missing teeth, and aesthetic concerns, can negatively affect OHRQoL, leading to social anxiety, reduced self-confidence, and a lower overall quality of life. For instance, studies by Kandelman et al. (2008) and Deng, Wang, Deng, Liu & Wu (2018) have established that objective clinical measures of oral health do not always correlate with a patient's subjective perception of their well-being, underscoring the importance of using patient-reported outcome measures (PROMs) to accurately assess the impact of dental interventions. While there is a growing body of evidence supporting the efficacy of specific aesthetic procedures, such as orthodontics and cosmetic dentistry, in improving OHRQoL (Patel et al., 2018), the holistic impact of combined OFH treatments has not been thoroughly examined in a structured, longitudinal manner.

This study proposes to follow a cohort of patients undergoing OFH procedures and use validated PROMs, such as the Oral Health Impact Profile (OHIP) (Montero et al., 2009), to measure changes in their OHRQoL at various time points: before treatment, and at 3, 6, and 12 months post-treatment. The longitudinal design will allow for a robust assessment of both the short-term and long-term effects of OFH, providing crucial data on the sustainability of the reported benefits. We hypothesize that patients who receive



orofacial harmonization treatments will experience a significant and sustained improvement in their OHRQoL, particularly in the domains related to psychological and social well-being. By utilizing a mixed-methods approach, including both quantitative data from questionnaires and qualitative data from semi-structured interviews, this research will provide a comprehensive understanding of the complex relationship between facial aesthetics, dental function, and patient quality of life. The findings from this study will not only provide empirical evidence for the therapeutic value of orofacial harmonization but also contribute to the development of patient-centered treatment protocols and a more holistic approach to dental care (Anastasio et al. 2024).

Beyond the immediate aesthetic and psychological benefits, it is crucial to examine the functional improvements that result from OFH treatments. For example, the strategic application of botulinum toxin in the masseter muscles can alleviate symptoms of bruxism and temporomandibular joint (TMJ) disorders, which are well-known contributors to pain and functional limitation. Similarly, targeted dermal filler injections can restore lip volume and support, improving the perioral seal and enhancing speech articulation. These functional enhancements are often overlooked in studies that focus solely on aesthetic outcomes, yet they are fundamental to a patient's daily comfort and their ability to perform essential tasks. Our research will integrate a functional assessment component, correlating patient-reported improvements in chewing, speaking, and pain reduction with changes in their overall OHRQoL scores, thereby providing a more complete picture of the therapeutic benefits.

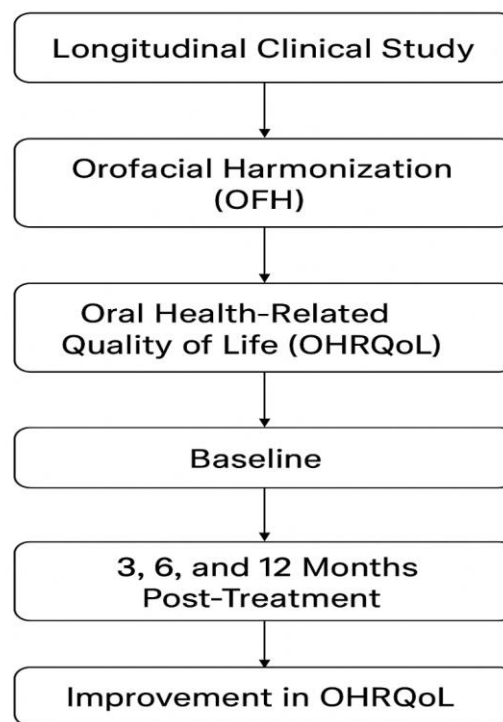
Furthermore, the long-term sustainability of the treatment effects and patient satisfaction is a key area of inquiry. While the immediate "wow factor" of aesthetic procedures is widely reported, the question of whether these positive feelings endure over time remains. Our 12-month follow-up period is designed to capture this long-term trend, exploring whether the initial boost in OHRQoL plateaus, wanes, or is successfully maintained through a well-defined maintenance protocol. This aspect of the study will provide valuable insights for practitioners, helping them set realistic patient expectations and plan for follow-up care. Understanding the patient's journey from initial treatment to long-term maintenance is critical for establishing OFH as a sustainable, patient-centered discipline rather than a series of one-off cosmetic interventions.

The flowchart summarizes the structure of the longitudinal clinical study by illustrating how orofacial harmonization (OFH) treatments are evaluated for their impact

on oral health-related quality of life (OHRQoL). It begins with the implementation of OFH procedures, followed by the assessment of patients' OHRQoL using validated measures. Data are collected at baseline and subsequently at 3, 6, and 12 months post-treatment, allowing researchers to track both short-term and long-term changes. The process culminates in identifying whether these interventions lead to significant and sustained improvements in OHRQoL, particularly in psychosocial and functional domains.

Figure 1

Flowchart of the Longitudinal Study Design on Orofacial Harmonization (OFH) and Oral Health-Related Quality of Life (OHRQoL)



Source; Created by author.

Finally, this study will also address the economic and social implications of orofacial harmonization. By demonstrating a significant improvement in OHRQoL, we can build a strong case for the therapeutic value of these procedures, potentially influencing insurance policies and healthcare coverage models. Improved OHRQoL can lead to increased productivity, reduced social anxiety, and a greater participation in daily life, all of which have broader societal benefits. The results will be presented at dental and medical conferences and published in peer-reviewed journals, with the goal of fostering a dialogue among clinicians, researchers, and policymakers about the role of OFH in



modern healthcare. This work aims to shift the perception of orofacial harmonization from a purely cosmetic practice to a legitimate and impactful area of therapeutic dentistry with a direct, measurable effect on patient well-being.



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