BULLETIN OF STOMATOLOGY AND MAXILLOFACIAL SURGERY
Volume 21, Issue 12
DOI:10.58240/1829006X-2025.21.12-130

ORIGINAL RESEARCH

INTERDISCIPLINARY COLLABORATION BETWEEN PROSTHODONTISTS AND MAXILLOFACIAL SURGEONS: IMPACT ON COMPLEX REHABILITATION

Anand Kumar. G. Patil[1], Arati Neeli[2*], Sourav Mohapatra[3],Nitya Sundar Satpathy[4], Abhilash Mohapatra[5]
[1]Professor, Department of Prosthodontics and Crown and Bridge, KAHER KLE. V. K. INSTITUTE OF DENTAL SCIENCES, BELAGAVI, Karnataka patilprostho@yahoo.co.in
[2*]Professor, Department of Oral and Maxillofacial Surgery Kle vk Institute of Dental Sciences, KAHER, Belagavi ORCID ID: 0000-0001-7650-7906 aratiaqua@yahoo.co.in
[3]Post Graduate, Department of Prosthodontics and Crown & Bridge, HDCH, Bhubaneswar mohapatra.sourav@yahoo.in
[4]Senior Lecturer, Department of Oral and Maxillofacial Surgery, Institute of Dental Sciences Siksha O Anusandhan Deemed to be University nityasundarsatpathy@gmail.com
[5]Professor, Shikshya o Anusandhan University. ORCID ID: 0000-0001-6970-600X abhilashmohapatra@soa.ac.in
Corresponding Author: Arati Neeli, Professor, Department of Oral and Maxillofacial Surgery Kle vk Institute of Dental Sciences, KAHER, Belagavi ORCID ID: 0000-0001-7650-7906 aratiaqua@yahoo.co.in

Received: *Oct 29. 2025;* ***Accepted:*** *Nov27, 2025;* ***Published:*** *Dec. 29, 2025*

ABSTRACT

Background: Complex craniofacial rehabilitation requires close coordination between surgical and prosthodontic teams, as successful outcomes depend on prosthetically driven reconstruction and careful interdisciplinary planning. Such collaboration not only streamlines treatment protocols but also improves both functional and esthetic results while enhancing overall patient satisfaction and quality of life. The objective of this study was to evaluate the functional and esthetic outcomes of interdisciplinary treatment approaches and to assess patient-reported quality of life and satisfaction.

Methods: A prospective cohort study was conducted at a private dental clinic involving 40 patients aged 19–68 years with maxillofacial defects due to trauma (45%), tumor resection (35%), or congenital anomalies (20%). All patients underwent interdisciplinary planning, staged reconstruction, and definitive prosthodontic rehabilitation. Outcomes assessed included masticatory efficiency, speech clarity, occlusal stability, facial symmetry, patient satisfaction, and complications.

Results: Mean masticatory efficiency improved from 48.2% to 81.6% ($p < 0.001$), and speech intelligibility increased from 3.1 to 4.5 ($p < 0.001$). Occlusal stability was achieved in 92.5% of patients, and facial symmetry was restored in 85%. Patient satisfaction scores improved from 4.2 to 8.7 ($p < 0.001$), and oral health–related quality of life scores decreased from 32.4 to 12.1 ($p < 0.001$). Complications occurred in 6 patients (15%) and were successfully managed.

Conclusion: Interdisciplinary collaboration significantly enhances functional, esthetic, and psychosocial outcomes and should be adopted as the standard for complex maxillofacial rehabilitation.

Keywords*: interdisciplinary collaboration, prosthodontic rehabilitation, maxillofacial surgery, oral health outcomes, treatment planning*

1. INTRODUCTION

Maxillofacial defects and craniofacial deformities are some of the hardest conditions to deal with during oral rehabilitation. They can have a broad aetiology, such as maxillofacial trauma, developmental defects, and ablative surgery of head and neck pathology.[1,2] These malformations not only disrupt the most important oral functions such as mastication, speech, and deglutition, but also affect the esthetics of the face and psychological well-being of the affected patients.[3] These situations, therefore, necessitate something more than just isolated surgical or prosthodontic therapy since they involve an integrated and

holistic approach that restores anatomy, functionality, and self-confidence.

Traditionally, the treatment was typically performed sequentially, with surgeons performing the resections and reconstructions and then referring patients to the prosthodontists to perform the rehabilitation of the patient with prostheses. Such an approach is capable of delivering plausible outcomes, although it can limit the potential to achieve a prosthetic-induced surgical reaction and less-than-ideal esthetic, occlusion, and position of the implant.[3,4] A maxillofacial prosthodontist is a crucial component of rehabilitation since they develop, create, and produce prostheses that resemble the structures that have been lost, reestablish the functionality, and improve the face (harmony).[1] However, when the prosthodontist comes in later in the game, then he or she might be expected to work with a compromised surgical anatomy that could damage the outcome in the long run.

To cope with these weaknesses, the inclusion of input by prosthodontics in the treatment plan process has been embraced as a measure of a well-established standard of effective maxillofacial rehabilitation. Interdisciplinary planning implies that surgical reconstructions are not conducted in isolation, but as a part of a team, which is essential to place endosseous implantations correctly, offer adequate bone and soft-tissue coverage, and deliver more foreseeable esthetic or functional outcomes.[3,4]

It has been found by some of the research that the maxillofacial prosthodontist is part of a team with the oncology or trauma care that helps to formulate reconstructive decisions that maximise the quality of life of the patient.[4]

Besides technical considerations, interdisciplinary collaboration may aid in supporting the foundation of a holistic and patient-centred care philosophy. The combined efforts of the work of surgeons, prosthodontists, dental technicians, speech therapists, and psychologists provide a holistic pathway of rehabilitation, which can tackle all the aspects of recovery, physical, functional, and psychosocial, simultaneously.[5] This form of collaboration has proven to be particularly useful with complex cases, including mass-casualty events, congenital craniofacial anomalies, and oncologic resections where time and accuracy are vital to the optimal outcome.[5,6]

Teamwork also enhances communication between team members, reduces redundancy, and eases the treatment schedules. Interprofessional education programmes have demonstrated to demonstrate that interprofessional education results in more positive attitudes towards medical personnel and the capacity to trust shared decision-making more.[7] This observation highlights the importance of proactively fostering good teamwork behaviour as a training and standard clinical practice rather than letting the collaboration self-correct.

Several case reports have demonstrated technical and procedural advantages in the combination of maxillofacial surgery and prosthodontics. Raising the recontouring of surgery sites, putting in place artificial implants, and the use of the state-of-the-art design of the prosthetics, among others, have all been pointed to as causing the improvement of occlusal stability, improved esthetics, and symmetry of the features of the face.[2,8] Maxillofacial prosthodontics is thus not just a tool of a replacement therapy, but of a form, functionality, as well as confidence restoration. These overall results would only be reliably realised by collective planning and action.[8]

Nevertheless, challenges remain in translating the principles of interdisciplinary care into routine clinical practice. Delayed prosthodontic involvement in oncologic care pathways may lead to malpositioned implants, inadequate bone volume, or compromised functional and psychosocial outcomes.[3] Despite the growing popularity of collaborative models, there is still limited quantitative evidence evaluating their actual impact on long-term outcomes such as complication rates, patient satisfaction, and oral health-related quality of life.[9] This gap highlights the need for systematic research that not only describes interdisciplinary workflows but also quantifies their clinical effectiveness and patient-centered benefits.

It is also important to distinguish between multidisciplinary and interdisciplinary approaches, as the terms are often used interchangeably in the literature. Multidisciplinary care typically refers to parallel practice, where each specialist works independently within their domain and later combines results. Interdisciplinary care, in contrast, reflects a higher level of integration where treatment plans are jointly developed and dynamically adjusted, ensuring that surgical and prosthetic objectives are aligned from the outset.[10] This distinction is clinically significant: failure to integrate care can result in suboptimal implant positioning, weaker occlusal schemes, prolonged healing times, and reduced long-term success rates,

whereas integrated planning improves all of these parameters.

The available literature suggests that an interdisciplinary approach to complex maxillofacial rehabilitation is well-founded and necessary. Such collaboration guarantees that surgical reconstruction is prosthetically motivated, maximizes esthetic and functional outcomes, and restores patients' quality of life to the highest possible level. Nevertheless, it is necessary to further have well-planned clinical trials that will objectively assess the superiority of interdisciplinary guidelines on clinical outcome, esthetics, and patient satisfaction.It is based on these considerations that the current study was undertaken to provide a systematic evaluation of the effect of a coordinated prosthodontic and surgical treatment paradigm on complex maxillofacial rehabilitation. Two dimensions were in the spotlight, namely, determining clinical parameters, i.e., functional restoration, esthetic outcomes, and complication rates; and patient-reported indicators, i.e., oral health-related quality of life, and overall satisfaction with care. Collectively, these actions are expected to present an overarching insight into the manner in which interdisciplinary cooperation can be transformed into a real-world change in clinical advantages and a better patient-focused outcome.

Objectives

1. To evaluate the clinical outcomes of an interdisciplinary treatment approach for complex maxillofacial rehabilitation
2. To assess patient-reported outcomes following coordinated prosthodontic and surgical management

2. MATERIALS AND METHODS

2.1 Study Design and Setting

The study was a prospective cohort study and was performed in a privately managed dental clinic with a specialty in prosthodontics and maxillofacial surgery, which would provide access to an experienced interdisciplinary team and standard treatment regimens. Patients were recruited consecutively in a sequence starting in January 2023 and finishing in June 2024, to reduce selection bias. Patients were eligible to participate in the study if, had craniofacial defects and needed combined surgical and prosthodontic rehabilitation. All the participants were followed systematically over a minimum of 12 months following the installation of the final prosthesis to test the short and medium-term results. An independent review board provided ethical approval, and informed written consent was obtained before the enrollment of all the participants.

2.2 Patient Selection

40 patients with complex maxillofacial defects that require combined surgical reconstruction and prosthodontic reconstruction were recruited into this study. The inclusion criteria were tightly limited to provide homogeneity in the cohort and were adults within the age range of 18 to 70 years whose defects resulted from maxillofacial trauma, ablative tumour surgery, or congenital craniofacial abnormalities. Participants had to be willing and able to comply with the proposed treatment plan, with follow-up visits, to be eligible. The exclusion criteria included a patient whose systemic disease was not under control to allow surgery, a patient who had not undergone a minimum of 12 months of follow-up after delivery of definitive prosthesis, and a patient who had only one specialty with no interdisciplinary care. Such a method of selection was crucial in such a way that only the patients who underwent comprehensive, coordinated rehabilitation were included in the analysis, thus permitting the accurate evaluation of the effect of interdisciplinary collaboration on the treatment outcomes.

2.3 Treatment Planning

All enrolled patients were administered a standardised and comprehensive work-up of diagnostics to enable proper diagnosis and the creation of an individualised treatment plan. Moral character entailed complicated extraoral and intraoral clinical studies, panoramic radiographs, and cone-beam computed tomography (CBCT) to accurately quantify the anatomy, bone mass, and bone quality and space relationship of hard tissues, which proved crucial during the positioning of implants. The assessment also included soft-tissue assessment and functional assessment of occlusion and phonetics. The collected data were reviewed during structured interdisciplinary meetings where prosthodontists and maxillofacial surgeons collaboratively determined surgical sequencing, number and angulation of implants, type of prosthesis, occlusal scheme, and esthetic requirements. Where feasible, advanced digital workflows were integrated, including virtual surgical planning, CAD/CAM design, and fabrication of patient-specific surgical guides to

enhance accuracy, reduce intraoperative guesswork, and improve treatment predictability. This collaborative planning ensured that surgical reconstruction was prosthetically driven and optimized for both function and esthetics.

2.4 Interventions

- **Surgical:** Reconstructive procedures such as bone grafting, ridge augmentation, osteotomies, and placement of endosseous implants.
- **Prosthodontic:** Fabrication of interim prostheses during healing, followed by definitive prostheses. Both conventional and CAD/CAM techniques were used. Occlusion and esthetics were verified at delivery and adjusted as required.

2.5 Outcome Measures

Outcome assessment focused on four major domains to comprehensively evaluate treatment success. Functional outcomes included evaluation of occlusion, masticatory efficiency, and speech clarity through clinical examination and patient feedback. Aesthetic outcomes were assessed by examining facial symmetry, contour restoration, and integration of the prosthesis with surrounding tissues. Patient-reported outcomes were measured using the validated OHIP-14 questionnaire and a visual analogue scale (VAS) to capture satisfaction and perceived quality of life. Complications were systematically recorded, including implant failures, prosthesis fractures, peri-implant infections, and any requirement for secondary revision procedures, ensuring a complete appraisal of both benefits and risks.

2.6 Data Analysis

All data were compiled and analyzed using SPSS statistical software, version 22.0 (IBM Corp., Armonk, NY, USA). Descriptive statistics, including mean, standard deviation, frequencies, and percentages, were calculated to summarize patient demographics, defect etiology, and clinical outcome variables. Normality of continuous data was assessed using the Shapiro–Wilk test to determine the appropriateness of parametric analysis. Changes in patient-reported outcomes, specifically Oral Health Impact Profile-14 (OHIP-14) scores and visual analogue scale (VAS) ratings, were compared between baseline and 12-month follow-up using paired t-tests for normally distributed data. Where data deviated from normality, the Wilcoxon signed-rank test was applied. A p-value of <0.05 was considered statistically significant for all comparisons, ensuring robust interpretation and minimizing type I error. Data were presented as mean ± SD for continuous variables, and categorical variables were expressed as percentages, facilitating clear and reproducible reporting of study results.

3. RESULTS

3.1 Patient Characteristics

A total of 40 patients fulfilling the predefined inclusion criteria were recruited and included in the final statistical analysis. The mean age of the study cohort was 42.8 ± 11.6 years, with a range of 19–68 years, representing a broad distribution across young and middle-aged adults typically affected by maxillofacial defects. The gender distribution revealed 24 males (60%) and 16 females (40%), showing a slight male predominance consistent with reported epidemiological trends for facial trauma and tumour resections. Etiological analysis indicated that maxillofacial trauma accounted for the highest proportion of cases (45%), followed by defects secondary to ablative tumour resections (35%) and congenital craniofacial anomalies such as cleft-related deformities (20%). This distribution highlights the heterogeneity of the cohort and the necessity for individualized, interdisciplinary management strategies. A comprehensive summary of baseline demographic data, defect etiology, and pre-treatment clinical characteristics is provided in Table 1 for detailed reference.

Table 1. Demographic and Baseline Characteristics of the Study Population

Characteristic	Value
Total patients	40
Mean age (years)	42.8 ± 11.6
Gender	Male 24 (60%), Female 16 (40%)
Etiology of defect	Trauma 18 (45%), Tumor 14 (35%), Congenital 8 (20%)
Comorbidities	Diabetes 6 (15%), Hypertension 5 (12.5%)

3.2 Treatment Overview

All 40 patients underwent a carefully planned staged treatment protocol, beginning with surgical reconstruction to restore anatomical continuity, followed by definitive prosthodontic rehabilitation to re-establish function and esthetics. Bone grafting procedures were required in 28 patients (70%) to augment deficient ridges, while corrective osteotomies were performed in 6 patients (15%) to optimize jaw alignment and occlusion. Endosseous implants were placed in 33 patients (82.5%) to provide stable support for prosthetic restorations. Definitive rehabilitation included fixed implant-supported prostheses in 22 patients (55%), removable partial dentures in 12 patients (30%), and maxillofacial obturators in 6 patients (15%) (Table 2).

Table 2. Distribution of Surgical and Prosthodontic Procedures

Procedure	n (%)
Bone grafting	28 (70.0)
Corrective osteotomy	6 (15.0)
Implant placement	33 (82.5)
Fixed prosthesis	22 (55.0)
Removable prosthesis	12 (30.0)
Obturator	6 (15.0)

The entire treatment workflow, comprising detailed preoperative planning, surgical reconstruction, interim prosthetic rehabilitation, and definitive prosthesis delivery, is summarized and visually represented in Figure 1. This illustration highlights the stepwise, coordinated, interdisciplinary approach that was consistently followed for all patients to achieve predictable functional and esthetic rehabilitation outcomes.

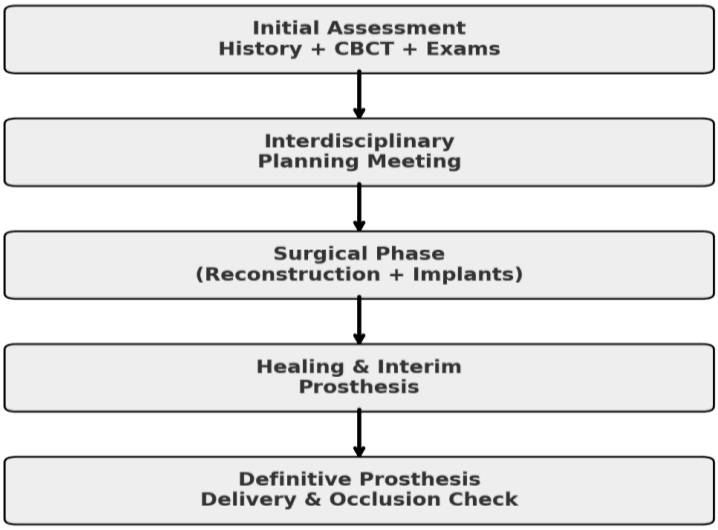

Figure 1. Workflow diagram showing stepwise interdisciplinary treatment from diagnosis to prosthesis delivery

3.3 Clinical Outcomes

Functional outcomes demonstrated marked improvement over the study period. Mean masticatory efficiency increased significantly from 48.2 ± 12.5% at baseline to 81.6 ± 9.3% at 12 months post-rehabilitation ($p < 0.001$), reflecting enhanced chewing capacity. Speech intelligibility scores improved from 3.1 ± 0.8 to 4.5 ± 0.6 on a five-point scale ($p < 0.001$), indicating clearer articulation and better phonation. Stable occlusion was successfully achieved in 92.5% of patients, reducing functional discomfort. Aesthetic outcomes were also favorable, with facial symmetry restored in 85% of cases and satisfactory prosthesis integration reported in 90% of patients. Comprehensive clinical outcome data are summarized in Table 3.

Table 3. Functional and Aesthetic Outcomes at Baseline and 12 Months

Outcome	Baseline	12 Months	p-value
Masticatory efficiency (%)	48.2 ± 12.5	81.6 ± 9.3	<0.001
Speech intelligibility (1–5)	3.1 ± 0.8	4.5 ± 0.6	<0.001
Occlusal stability (%)	40.0	92.5	<0.001
Facial symmetry achieved (%)	–	85.0	–
Prosthesis integration satisfactory (%)	–	90.0	–

The improvement in masticatory efficiency over time is further visualized in Figure 2, which shows a steady upward trend from baseline through the 3-, 6-, and 12-month evaluations. Six patients (15%) experienced complications: three had minor prosthesis fractures, two had soft-tissue inflammation, and one had implant failure. All complications were successfully managed, and no patient required discontinuation of treatment.

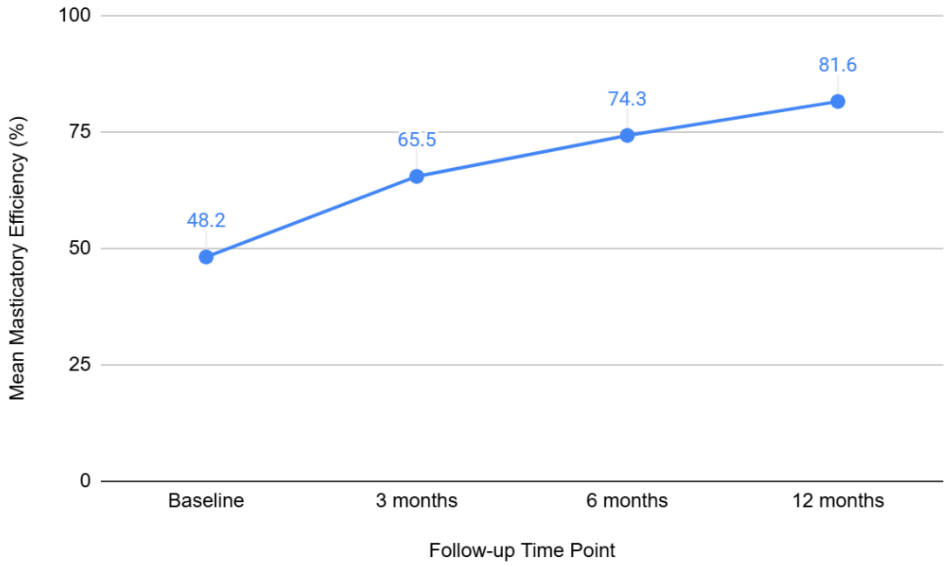

Figure 2. Line graph depicting mean masticatory efficiency at baseline, 3, 6, and 12 months post-prosthesis delivery

3.4 Patient-Reported Outcomes

Patient-reported outcomes closely paralleled the favorable clinical findings, demonstrating a substantial improvement in quality of life following interdisciplinary rehabilitation. The mean OHIP-14 score significantly decreased from 32.4 ± 6.8 at baseline to 12.1 ± 4.7 at the 12-month follow-up ($p < 0.001$), indicating a marked reduction in the perceived negative impact of oral health on daily activities. Similarly, patient satisfaction, measured using a 0–10 visual analogue scale (VAS), increased from a mean of 4.2 ± 1.3 to 8.7 ± 0.9 ($p < 0.001$), reflecting high levels of acceptance of the treatment outcome. Figure 3 graphically summarizes these improvements, illustrating both the progressive reduction in OHIP-14 scores and the rise in satisfaction levels over time. Qualitative feedback from patients highlighted improved self-confidence, clearer speech, enhanced masticatory function, and a greater willingness to participate in social interactions, underscoring the psychosocial value of coordinated prosthetic and surgical management.

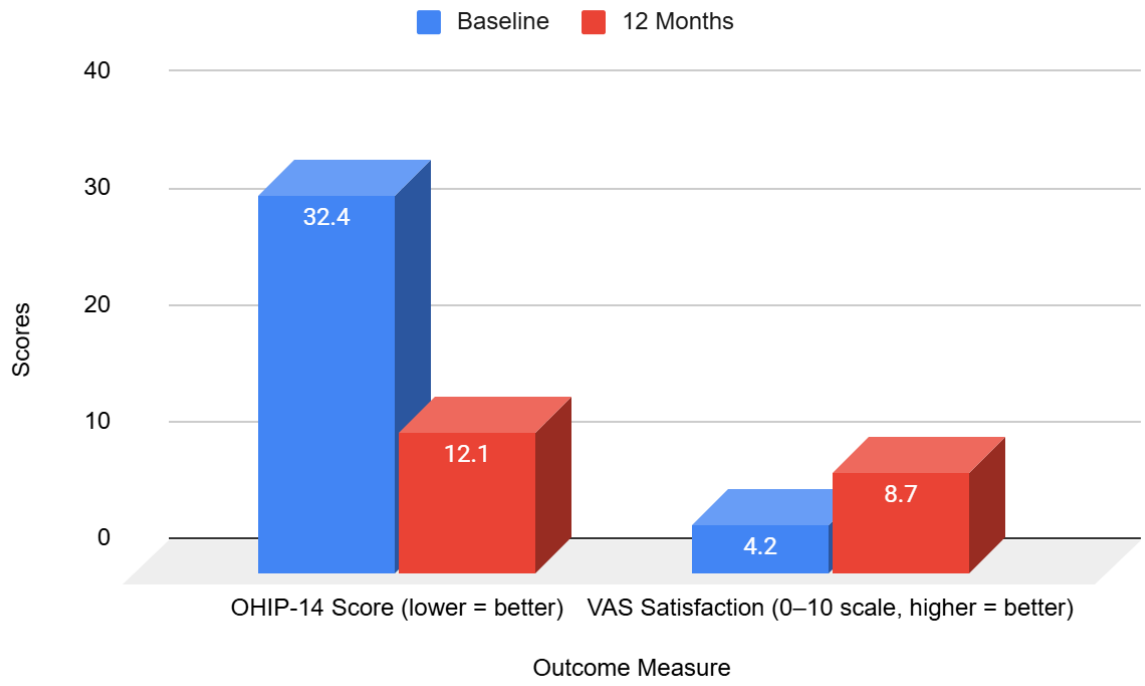

Figure 3. Bar chart depicting the change in OHIP-14 and VAS satisfaction scores from baseline to 12 months

4. DISCUSSION

This research clearly demonstrates that an interdisciplinary model, incorporating prosthodontists and maxillofacial surgeons from the earliest stages of treatment planning, leads to significantly better outcomes for patients undergoing complex oral and maxillofacial rehabilitation. The results demonstrate significant improvements in several vital areas: the masticatory efficiency, occlusal stability, and speech clarity were all significantly improved at the 12-month follow-up interval, which indicates strong functional recovery. The aesthetic results were satisfactory in the majority of the cases because the patients and the clinicians both reported the restoration of facial symmetry and natural appearance. It is noteworthy that these clinical gains were also observed in patient-reported outcomes, where OHIP-14 scores reduced significantly, and patient satisfaction ratings also increased significantly, which reflects not only physical recovery but also psychosocial functioning and recovery of normal social functioning. This can be corroborated by the idea that teamwork, quality care positively affect clinical outcomes and patient experience, confidence, and quality of life. The fact that such collaborative care is not only effective but also safe is also supported by the fact that this cohort's complication rate is low.

This research has supported the primary concept that prosthetically driven surgical planning is one of the keys to achieving the best outcomes in the long-term outlook. Planning surgery based on the end-of-care objectives of the final prosthetic can provide clinicians with the best placement of the implants, adequate bone grafting, and stable occlusion patterns at the onset of care. The early involvement of the prosthodontic team facilitated the surgery and prosthetic phases, which postponed the rehabilitation process and prevented the secondary corrective actions. These findings are not isolated because past research findings have reported that true interdisciplinary teams, where joint decision-making, shared responsibility, and combined workflow exist, invariably have high levels of functional and psychosocial outcomes compared to sequential or solitary approaches to treatment.[11] The combination of the precision of surgery and the opportunities of prosthetics allowed our group to predict the final shape and the functions of the oral complex more adequately, which led to increased efficiency and predictability of the results.

The findings are in line with the emerging literature that highlights the significance of integrated treatment planning. Brauner et al. demonstrated that multidisciplinary planning in orthognathic and prosthetic cases led to greater predictability of outcomes and fewer secondary interventions, while

Rubinstein et al. reported enhanced facial harmony and improved patient satisfaction in aesthetically demanding cases when surgeons and prosthodontists collaborated during planning stages.[12,13] Similarly, Dzalaeva et al. showed that interdisciplinary management of orofacial pain and temporomandibular disorders yielded superior functional results compared to single-specialty approaches.[14] These benefits are not limited to function alone. Patidar et al. and Sharka et al. highlighted that collaborative management of complex dentoalveolar trauma and jaw discrepancies reduced treatment time, enhanced decision-making efficiency, and improved overall patient acceptance.[15,16] The results of our study mirror these findings, particularly in demonstrating that coordinated workflows result in timely rehabilitation and a reduction in unnecessary procedural repetition.

One of the key enablers of such successful collaboration is the use of digital workflows and planning tools. In our cohort, digital imaging, virtual implant planning, and patient-specific surgical guides facilitated precise communication among team members and minimized intraoperative errors. These findings are consistent with previous reports underscoring the role of digital technologies in bridging the gap between surgical and prosthetic teams, thereby enhancing accuracy and reproducibility.[17,18] Jena et al. and Kannan et al. have similarly emphasized the importance of detailed preoperative planning for esthetically demanding full-mouth rehabilitations, which is corroborated by the positive esthetic outcomes observed in our study.[19,20]

These results cannot be overestimated in terms of their clinical significance. The formation of protocol-based teamwork with structured joint planning sessions, the imaging data sharing standardisation, scheduled workflows, and feedback loops may become an excellent example of excellence in maxillofacial rehabilitation. It has been discovered that these practices are important in such a way that surgical reconstruction and prosthetic rehabilitation are not in separate silos. This model of care will be advocated as a universal practice, particularly in complex cases that involve multiple operations and specialties.

The problems of complete integration of workflows, however, are yet to be fully introduced. Examples of the barriers frequently cited are financial constraints, inaccessibility to current imaging or digital pre-planning software, and logistical difficulties in ensuring that different experts would have to plan their activities. It is stated that the deficiency of coordination can make the treatment of patients more time-consuming and negatively influence the outcomes, and Tong states that institutional support, additional education, and the development of the collaboration infrastructure are needed.[11] Overcoming these barriers will require a systemic effort, including policy-level advocacy, incorporation of interdisciplinary training in dental and surgical curricula, and the creation of referral networks that facilitate team-based care.

Looking ahead, further research should aim to refine interdisciplinary workflows through the application of emerging technologies. Virtual surgical planning, artificial intelligence-driven occlusal analysis, 3D printing of patient-specific guides and scaffolds, and the use of advanced biomaterials may further improve treatment precision and shorten rehabilitation timelines. Aronovich et al. have stressed the importance of personalized, team-based management for patients with congenital craniofacial disorders, and future digital innovations may enhance the customization and efficiency of such protocols.[21] Large-scale prospective studies comparing interdisciplinary versus single-specialty care models would provide higher-level evidence and help establish clinical guidelines and educational frameworks that promote collaborative practice as the norm.

The present research adds to the growing body of evidence supporting interdisciplinary collaboration as the gold standard for complex maxillofacial rehabilitation. Establishing both surgical and prosthetic goals from the outset ensures a seamless treatment process that maximizes functional recovery, achieves esthetic harmony, and significantly enhances patient quality of life. As digital technologies continue to evolve and collaborative protocols become more streamlined, even greater precision, efficiency, and patient-centeredness can be anticipated in the future. Ultimately, the success of such approaches underscores that modern maxillofacial rehabilitation is not just about repairing structures but about restoring patients' lives through coordinated, holistic, and scientifically grounded care.

5. CONCLUSION

The research indicates the most significant beneficial aspect of the interdisciplinary approach

that combines expertise in prosthodontic and maxillofacial surgery during the rehabilitation of a person with complex craniofacial defects. Surgical reconstruction, in comparison with the prosthetically directed treatment planning, made significant gains in the masticatory efficiency and the occlusive stability, articulateness of speech, and facial attractiveness. These clinical outcomes have been validated in patient-reported outcomes, which reveal that there is a significant improvement in the quality of life regarding oral health and overall satisfaction after 12 months of intervention. The efficiency and safety of such cooperation are also predetermined by the fact that the frequency of complications is minimal. The results again reiterate that interdisciplinary cooperation is not only a nice thing to do, but also a necessity to achieve predictable and patient-centred outcomes in an otherwise complicated oral rehabilitation process. The timely availability of the prosthodontic team will work effectively to assure the correct position of the implants, the perfect grafting, and the occlusion-centred planning, which will in turn lead to the more successful treatment processes and the ultimate triumph of the functional. In the future, the application of protocol-based, standardised methods formalising interdisciplinary communication, case planning, and outcome evaluation is required. Digital workflows, virtual surgical planning, and shared data platforms can also be added to the existing treatment to make it even more streamlined and predictable. Future multicentre prospective investigations will be useful to enhance the evidence base and provide the best-practice guidelines. The given study highlights the fact that the actual type of interdisciplinary care involving joint decision-making and flawless coordination is the gold standard of complex maxillofacial rehabilitation and should be popular in clinical practice.

DECLARATIONS

Acknowledgments

The authors wish to affirm that they have no conflicts of interest pertaining to the current research.

Funding

This research not funding

Competing Interests

The no competing interests .

REFERENCES

1. Malik S. Role of maxillofacial prosthodontist as a member of interdisciplinary oncology team in oral and maxillofacial rehabilitation: a brief review. International Journal of Head and Neck Surgery. 2022 Sep 17;13(2):63-6.
2. Edelhoff D, Probst F, Ehrenfeld M, Prandtner O, Schweiger J, Liebermann A. Interdisciplinary full-mouth rehabilitation for redefining esthetics, function, and orofacial harmony. Journal of esthetic and restorative dentistry. 2019 May;31(3):179-89.
3. Srivastava SK, Sikdar C, Rana A, Srivastava S, Shekhar A. From the Operating Room to the Dental Chair: Collaborative Prosthodontics in Craniofacial Rehabilitation. Cureus. 2025 Jul 30;17(7).
4. Malik S. Role of maxillofacial prosthodontist as a member of interdisciplinary oncology team in oral and maxillofacial rehabilitation: a brief review. International Journal of Head and Neck Surgery. 2022 Sep 17;13(2):63-6.
5. Almutairi MA, Al-Masoudi SA, Al-Huwaiti MH, Rashed Alayyar LK, Al-Hammad AS. Interdisciplinary coordination among dental specialists, technicians, and assistants in orofacial injury management during natural disasters. Journal of International Crisis and Risk Communication Research. 2024;7(S4):82.
6. Ashi A, Alaqidi AM, FayihAlbaqami F, Alhudiban MM, Almaymoon HS, MusferAlbahri B, ShammsiMalouhAlenezi M, Alhader MA. The Role of Collaborative Approaches in Enhancing the Future of Dentistry: Bridging Specialties for Better Health. Journal of International Crisis and Risk Communication Research. 2024;7(S3):81.
7. Deshpande S, Radke U. Impact of interprofessional education module on attitudes of health-care providers involved in maxillofacial rehabilitation: a cross-sectional study. The Journal of Indian Prosthodontic Society. 2017 Apr 1;17(2):136-41.
8. Vaisnav K. Maxillofacial Prosthodontics: Restoring Form and Function in Facial Prosthetics. Prosthodontics Revolution: Modern Techniques in Dental Restorations. 2022 May 10:109.
9. El Hawari W, Rokhssi H, Zaroual A, Bentahar O. Collaboration between the maxillofacial prosthodontists and the maxillofacial surgeons: Overview. International Journal of Surgery Open. 2023 Feb 1;51:100590.

10. Melsen B. Interdisciplinary Versus Multidisciplinary Treatments. Adult Orthodontics. 2022 Jun 4:54-64.
11. Tong DC. Surgical management in dentistry: the interdisciplinary relationship between periodontology and oral and maxillofacial surgery. Periodontology 2000. 2017 Jun;74(1):168-75.
12. Brauner E, Amelina G, Laudoni F, Fadda MT, Armida M, De Angelis F, Pranno N, Bossù M, Valentini V, Di Carlo S. Multidisciplinary Planning in Orthognathic Surgery for Prosthetic Patients. Applied Sciences. 2023 Oct 5;13(19):10988.
13. Rubinstein S, Levin BP, Michalczyk ER, Razdolsky Y, Fujiki T. The Importance of Interdisciplinary Treatment in an Esthetically Challenging Case. Compendium. 2021 Jan;42(1).
14. Dzalaeva F, Chikunov S, Bykova M, Deev M, Okromelidze M. Study of the clinical efficiency of an interdisciplinary approach to the treatment of orofacial pain and temporomandibular joint disorders in patients with complete or partial edentulism. European journal of dentistry. 2020 Oct;14(04):657-64.
15. Patidar A, Garg S, Pradhan PK, Kumari P, Raheja A, Das SS. A Multidisciplinary Clinical Approach in Decision-Making in Complex Dento-Alveolar Trauma in the Maxillofacial Region: An Original Research. Journal of Pharmacy and Bioallied Sciences. 2025 Jun 1;17(Suppl 2):S1793-5.
16. Sharka R, Alamar M, Alhaider Y, Albakri F, Ezzat Y. Interdisciplinary approach of orthognathic surgery and prosthodontics for the treatment of jaw discrepancies: A report of four cases. Saudi Journal of Oral Sciences. 2022 Sep 1;9(3):190-7.
17. Lv L, He W, Ye H, Cheung K, Tang L, Wang S, You L, Xun C, Zhou Y. Interdisciplinary 3D digital treatment simulation before complex esthetic rehabilitation of orthodontic, orthognathic and prosthetic treatment: workflow establishment and primary evaluation. BMC Oral Health. 2022 Feb 11;22(1):34.
18. Sorrentino R, Zarone F, Cantile T, Mastrosimone A, Cervino G, Ruggiero G. The Use of Digital Tools in an Interdisciplinary Approach to Comprehensive Prosthodontic Treatments. Prosthesis. 2024 Aug 1;6(4):863-70.
19. Jena D, Arya A, Razdan RA, Sharma H, Das SS, Rabara R. Full mouth rehabilitation using advanced concepts with an interdisciplinary approach. Bioinformation. 2025 Mar 31;21(3):509.
20. Kannan A, Jain V, Raghavan M. Interdisciplinary Orthodontic and Prosthodontic Approach for Esthetic Rehabilitation in an Adult Patient. Journal of Interdisciplinary Dentistry. 2022 Jan 1;12(1):26-31.
21. Aronovich S, Hsieh YL, Conley RS, Stieper B, Yatabe M, Liu F. Interdisciplinary dental management of patient with oligodontia and maxillary hypoplasia: a case report. BMC Oral Health. 2022 Mar 22;22(1):84.