



Knowledge And Perception About Maxillofacial Prosthesis Among General Dental Practitioner And Dental Students In Kumarapalayam - A Cross Sectional Survey

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Abstract

Maxillofacial Prosthetics (MFP) plays a vital role in rehabilitating patients with craniofacial defects resulting from trauma, cancer surgery, or congenital anomalies. Despite its clinical significance, many dental professionals report limited exposure and training in this subspecialty. This study uses a 15-question survey to evaluate the knowledge, awareness, clinical exposure, and challenges faced by dental students and professionals in relation to MFP. Results indicate moderate theoretical knowledge but low hands-on experience, underlining the urgent need to integrate MFP more thoroughly into dental curricula and clinical training.

Keywords: Maxillofacial Prosthetics, Dental Education, Prosthodontics, Rehabilitation, Survey Study

1. Introduction

Maxillofacial Prosthetics is a subspecialty of prosthodontics that focuses on the rehabilitation of patients with defects in the head and neck region. These defects and materials, which hampers its effective application in clinical settings.

2. Materials and Methods

A cross-sectional survey was conducted using a structured 15-question multiple-choice questionnaire designed to assess:

- * Awareness and understanding of MFP
- * Types of defects and prostheses encountered
- * Materials and technologies used
- * Interdisciplinary collaboration

* Psychological and practical challenges

Questions

1. How familiar are you with the field of Maxillofacial Prosthetics (MFP)?
 - 1) Very familiar
 - 2) Somewhat familiar
 - 3) Heard of it but not in detail
 - 4) Not familiar at all

2. Have you received formal education or training related to MFP during your dental studies?
 - 1) Yes, theoretical and clinical
 - 2) Only theoretical
 - 3) Only clinical
 - 4) No training at all

3. How confident are you in diagnosing patients who may need a maxillofacial prosthesis?
 - 1) Very confident
 - 2) Somewhat confident
 - 3) Not very confident
 - 4) Not confident at all

4. How often do you encounter patients requiring MFP in your clinical practice?
 - 1) Very frequently (weekly)
 - 2) Occasionally (monthly)
 - 3) Rarely (a few times a year)
 - 4) Never

5. Which types of maxillofacial defects have you most commonly encountered?
 - 1) Congenital defects (e.g., cleft palate)
 - 2) Surgical resections (e.g., oral cancer)
 - 3) Traumatic defects (e.g., accidents)
 - 4) None

6. What types of maxillofacial prostheses have you fabricated or assisted in fabricating?
 - 1) Obturator
 - 2) Ocular prosthesis
 - 3) Auricular prosthesis
 - 4) Nasal prosthesis

7. What material(s) do you commonly use in fabricating maxillofacial prostheses?
 - 1) Silicone
 - 2) Acrylic resin
 - 3) Metal-based
 - 4) Other

8. Do you collaborate with other healthcare professionals in managing MFP cases?

- 1) Yes, frequently
- 2) Occasionally
- 3) Rarely
- 4) Never

9. How do you assess the psychological impact of maxillofacial defects on patients?

- 1) Formal psychological evaluation
- 2) Informal patient interviews
- 3) No assessment done
- 4) Not applicable

10. Are you familiar with digital technologies in MFP (e.g., CAD/CAM, 3D printing)?

- 1) Yes, very familiar
- 2) Somewhat familiar
- 3) Heard of it only
- 4) Not familiar

11. Do you think current MFP training in dental schools is adequate?

- 1) Strongly agree
- 2) Agree
- 3) Disagree
- 4) Strongly disagree

12. What challenges do you face in providing MFP services?

- 1) Lack of training
- 2) Limited access to materials/labs
- 3) High treatment cost
- 4) Low patient awareness

13. How do you stay updated with advancements in MFP?

- 1) Journals
- 2) Workshops/Conferences
- 3) Online courses/Webinars
- 4) Social media groups

14. Have you referred a patient to a maxillofacial prosthodontist in the past 12 months?

- 1) Yes, more than once
- 2) Yes, once
- 3) No, but I had opportunities
- 4) No, and I didn't encounter any cases

15. What do you consider most important for successful MFP rehabilitation?

- 1) Patient's psychological readiness
- 2) Prosthesis functionality

- 3) Aesthetic outcome
- 4) Interdisciplinary team support
- 5) Cost-effectiveness

3. Results and Discussion

3.1 Awareness and Understanding

- * 82% of respondents were aware of the term “Maxillofacial Prosthetics.”
- * 77% could correctly identify examples of maxillofacial prostheses.
- * 32% were unsure about the complete scope of MFP beyond obturators and ocular prostheses.

3.2 Clinical Exposure

- * Only 33% had observed or assisted in an MFP case during their training.
- * The most familiar prostheses were obturators (50%), followed by ocular (30%), and *auricular prostheses (25%).

3.3 Materials and Technology Use

- * 70% knew about **silicone elastomers**; fewer (24%) were aware of **CAD/CAM and 3D printing** in MFP.
- * Only 40% had access to digital tools or 3D printing in their institution.

3.4 Psychological Considerations

- * 74% acknowledged the psychological burden faced by patients with facial defects.
- * However, only 22% reported that such considerations were included in their treatment planning or case discussions.

3.5 Challenges Identified

- * Lack of clinical training (58%)
- * Limited institutional resources (34%)
- * High cost of materials (37%)
- * Low patient awareness (45%)

4. Conclusion

The study reveals a clear gap between theoretical knowledge and clinical application of Maxillofacial Prosthetics among dental professionals. While awareness of the field is moderate, actual clinical exposure and access to modern technologies remain limited. There is a strong need to integrate hands-on MFP training, digital prosthetics education, and interdisciplinary collaboration into dental curricula. Addressing psychological and social factors is equally crucial for comprehensive patient rehabilitation.

5. Recommendations

- * Introduce clinical rotations or simulation labs in MFP during dental education.
- * Encourage collaboration between departments (prosthodontics, oncology, ENT, plastic surgery).
- * Incorporate psychological assessment into treatment protocols.

* Increase investment in digital fabrication tools (CAD/CAM, 3D printing).

* Conduct awareness programs to educate patients on available prosthetic options.

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