

**CPD and Its Application In Clinical Practice By Dental Professional In West - Central India**<sup>1</sup>Dr. Shashank Kaldate, <sup>2</sup>Dr. Ashish Pandey, <sup>3</sup>Dr. Ankit Galav, <sup>4</sup>Dr. Manish Lilani, <sup>5</sup>Dr. Dhruv Sureja, <sup>6</sup>Dr. Haripriya Katira<sup>1-6</sup>Daswani Dental College and Research Centre, Kota.**Corresponding Author:** Dr. Shashank Kaldate, Daswani Dental College and Research Centre, Kota.**Citation of this Article:** Dr. Shashank Kaldate, Dr. Ashish Pandey, Dr. Ankit Galav, Dr. Manish Lilani, Dr. Dhruv Sureja, Dr. Haripriya Katira, “CPD and Its Application In Clinical Practice By Dental Professional In West - Central India”, IJDSIR- December - 2023, Volume – 6, Issue - 6, P. No. 148 – 152.**Copyright:** © 2023, Dr. Shashank Kaldate, et al. This is an open access journal and article distributed under the terms of the creative common’s attribution non-commercial License. Which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given, and the new creations are licensed under the identical terms.**Type of Publication:** Original Research Article**Conflicts of Interest:** Nil**Abstract****Goal:** Cast partial dentures, or CPDs, are becoming less common every day. The purpose of this survey was to determine the decline in CPD use.**Settings and Design:** Descriptive survey**Materials and Methods:** This survey consist of eight questions regarding the use of CPDs by the dentists in west central India (Kota) which was sent to them through electronic communication.**Conclusion:** Modern treatment options like implants and fixed partial dentures are the cause of the CPD decline. Aesthetics and high fabrication costs are additional contributing factors.**Keywords:** Deceleration, Cast Partial Denture, Removable Partial Dentures, Dentist.**Introduction**

In the symphony of dental restoration, cast partial dentures (CPDs) emerge as virtuoso performers, orchestrating a harmonious blend of functionality and aesthetic finesse. Much like a meticulously composed

concerto, CPDs take center stage, providing a melodic solution for those navigating the void left by missing teeth. Within the corridors of modern dentistry, dental professionals, akin to skilled conductors, seamlessly weave the utilization of CPDs into their clinical repertoire, crafting bespoke restorations that transcend the mere mending of smiles.

These dental maestros, armed with alloy batons and artistic precision, entrust CPDs with the responsibility of addressing a myriad of clinical scenarios. It is within the nuanced contours of CPDs that the missing elements of a patient's oral landscape find their place, creating a symphony of form and function. The canvas of restorative artistry unfurls, and dental professionals embark on a journey to sculpt not just prosthetic structures but transformative experiences for their patients.

As we delve into the nuances of CPDs, we discover an odyssey of versatility. They are not mere replacements for lost teeth but rather bespoke creations tailored to

each patient's unique anatomical cadence. The amalgamation of biomechanics and artistry culminates in restorations that not only stand the test of time but elevate the aesthetics of a patient's visage. CPDs, in the hands of dental virtuosos, become instruments of transformative change, restoring not just smiles but the confidence and joy that resonate within each patient.

In this exploration, we unravel the complexities and unveil the artistry inherent in the application of CPDs. From the initial notes of patient assessment to the crescendo of framework design and try-ins, dental professionals choreograph a ballet of precision and empathy. As we traverse the landscape of cast partial dentures, we witness the integration of cutting-edge materials and techniques, propelling the boundaries of dental innovation.

Join us on this odyssey through the world of CPDs, where missing teeth find their lyrical counterparts, and dental professionals articulate the narrative of restoration with eloquence and finesse. In this symposium of smiles, CPDs take their rightful place as not just dental artifacts

but as instruments in the composition of a patient's enduring joy and renewed confidence.

## Materials & Methods

The online questionnaire survey containing eight questions was conducted & its was sent through mails, WhatsApp to the dentists in west central india (Kota). The link was sent to 200 dentists in the city of Kota.

There were seven closed-ended questions in the online survey. The survey's introduction included a statement on the study's purpose. Emails or WhatsApp were used for the communications. Verbal response was strictly prohibited.

The first two questions Q1 and Q2 were related to most frequently encountered group of edentulism and suggested treatment modalities for partial edentulism. The following two inquiries Q3 and Q4 dealt with the frequency of patient consent to CPD and the grounds for patient rejection of CPD. The following two questions, Q5 and Q6, asked about the amount of RPDs provided in a year as well as the components and methodologies of CPD for dental practitioners.

Table 1: Questionnaire on CPD use and its decreasing trend

Q.	Queries	Choice of responses
Q1	A often occurring group of edentulism	Kennedy's class I Kennedy's class II Kennedy's class III Kennedy's class IV
Q2	Recommended therapeutic approaches for the rehabilitation of patients with partial dentition in clinical settings	Temporary partial denture Flexible denture Cast partial denture
Q3	Acceptance of cast partial denture as treatment modality	Very regular Quite often Rarely Very Rarely
Q4	Issue encountered when recommending a cast partial denture to the patient	Fabrication cost Lab support

		Prognosis Adjustments Aesthetics
Q5	Are you familiar with the methods and different materials used in cast partial dentures?	Yes No Very rare
Q6	Removable partial denture insertion done in a one year	1-10 10-20 >20 Temporary partial denture Flexible denture Cast partial denture

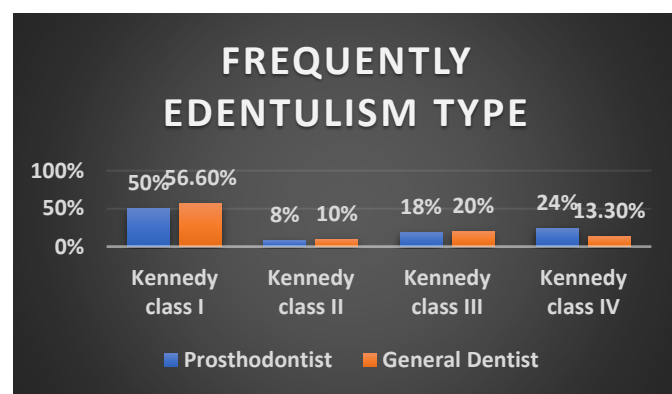
## Discussion

The various treatment modalities for partially edentulous Patients with missing teeth can choose between an implant, a resin-bonded fixed prosthesis, a temporary removable partial denture, a permanent cast partial denture, or a fixed partial denture.[5] For patients who are missing their natural teeth, removable partial dentures (RPDs) are the simplest and most straightforward way to replace teeth.[6] Because of certain anatomical, financial, and other patient-related factors, RPDs are occasionally the recommended course of action.[5] A removable partial denture can be made of acrylic partial denture, CPD, or flexible denture.[7] But because of creation of Implant supported prosthesis and growing call for for metallic unfastened prosthesis, the CPD fashion is decreasing.

## Results

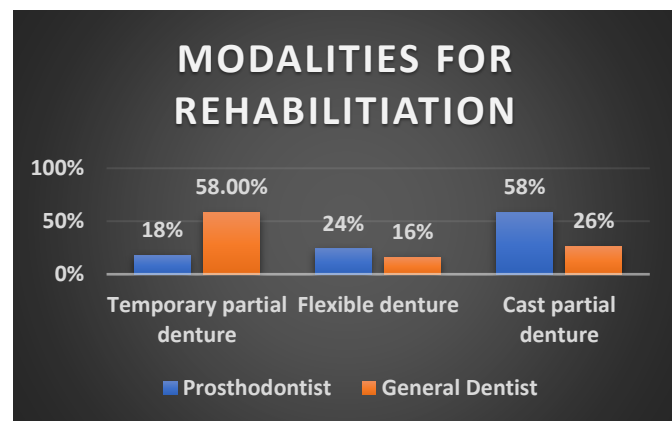
A total 200 dentists responded to this survey out of which 45 (25%) were prosthodontist and 155(75%) were general dentists. Out of 200 dentists 25(50%) prosthodontists and 85(56.6%) general dentists said that frequently encountered group of edentulism was Kennedy class I. 4 (8%) prosthodontists and 15 (10%) dentists said frequently encountered group was kennedy class II. 9 (18%) prosthodontists and 30 (20%) dentists said frequently encountered group was kennedy class III. 12 (24%) prosthodontists and 20 (13.3%) dentists said

frequently encountered group was kennedy class IV. The difference was not statistically significant ( $p = 0.871$ )



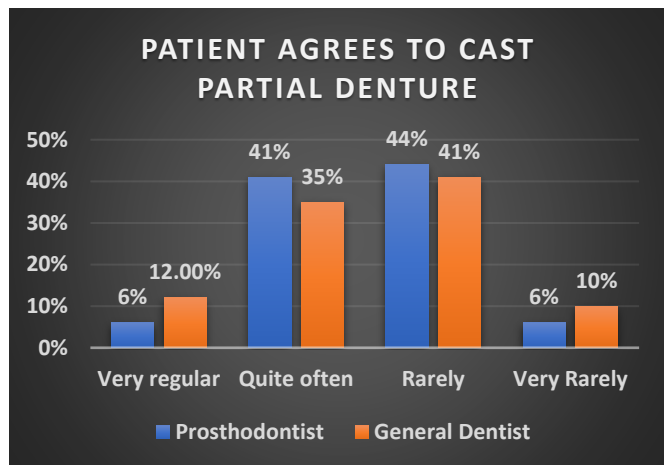
Graph 1

Suggested treatment for missing teeth according to 29(58%) prosthodontist was CPD and 87(26%) general dentists opt for temporary RPD. 12 (24%) prosthodontists and 24 (16%) dentists opted for flexible RPD. The distinction turned into statistically significant ( $p = 0.009$ )



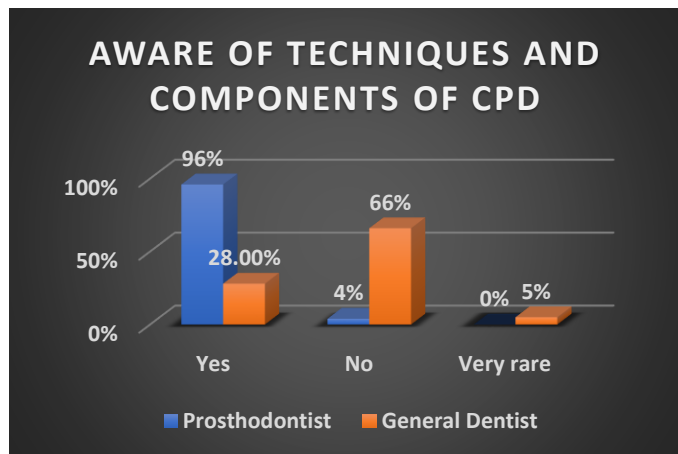
Graph 2

According to 16 (41%) of dentists and 13 (44%) prosthodontists rarely patient agrees to CPD. According to 14 (35%) of dentists and 12 (41%) prosthodontists quite often patient agrees to CPD. There was no statistically significant difference. ( $p=0.093$ )



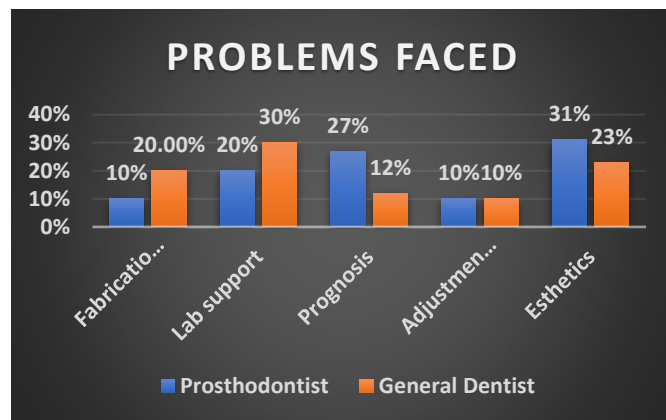
Graph 3

48 (96%) prosthodontists and 42 (28%) dentists were aware of components and techniques of CPD. There was highly statistically significant difference ( $p < 0.001$ ).



Graph 4

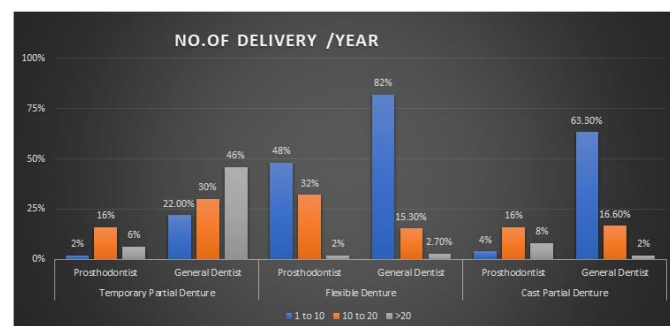
When asked about Problem faced while suggesting Cast partial denture to the patient, 9 (31%) prosthodontists said it was due to aesthetics and 12 (30%) dentists said it was due to lab support.



Graph 5

When asked about Removable partial denture delivered in a single year 32 (64%) prosthodontists and 70 (46%) dentists said greater than 20 temporary RPDs are given in single year.

16 (32%) prosthodontists said 10-20 flexible dentures are given in a single year and 123 (82%) general dentists said 1-10 flexible denture are given. The difference was highly statistically significant difference ( $p < 0.001$ ). 40 (8%) prosthodontists said greater than 20 CPDs are given and 95 (63.3%) dentists said 1-10 CPDs are given in a single year. The difference was highly statistically significant difference ( $p < 0.001$ )



Graph 6

## Conclusion

Change is the only constant thing in the world. World keeps changing with the changing trends. This survey shows that the primary and most often suggested treatment modalities for missing teeth by dentists is Removable partial denture or Cast partial denture, patients are still unwilling to accept it because of the

high cost of fabrication, unattractive design, and removable nature of the device. The use of CPD in clinical practice is limited by the modern and sophisticated treatment trends for partially edentulous patients who are missing one or more teeth, such as implants and fixed partial dentures.

## References

1. Prosthetic Rehabilitation of a Partially Dentate Patient With a Maxillary Cast Partial Denture and Mandibular Overdenture: A Case Report Akansha V Bansod,<sup>1</sup> Sweta G Pisulkar,<sup>1</sup> Seema Sathe,<sup>1</sup> Arushi Beri,<sup>1</sup> and Chinmayee Dahihandekar
2. Eggbeer D, Bibb R, William R: The computer aided design and rapid prototyping fabrication of removable denture frameworks. J Eng Med. 2005, 219:195-202. 10.1243%2F095441105X9372
3. Thakare KS, Bhongade ML, Charde P, Kale S, Jaiswal P, Somnath BK, Pendor S: Genetic mapping in Papillon-Lefèvre syndrome: a report of two cases. Case Rep Dent. 2013, 2013:404120. 10.1155/2013/404120
4. Petropoulos VC, Rashedi B. Removable partial denture education in U.S. dental schools. J Prosthodont 2006;15:62-8
5. D'Souza D, Dua P. Rehabilitation strategies for partially edentulous-prosthetic principles and current trends. Med J Armed Forces India 2011;67:296-8.
6. Allen PF, Jepson NJ, Doughty J, Bond S. Attitudes and practice in the provision of removable partial dentures. Br Dent J 2008;204:E2.
7. Polyzois G, Lagouvardos P, Kranjcic J, Vojvodic D. Flexible removable partial denture prosthesis: A survey of dentists' attitudes and knowledge in Greece and Croatia. Acta Stomatol Croat 2015;49:316-24.