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## Original Research Article

# Knowledge and attitude towards denture adhesives- A survey on complete denture wearers a survey of use of denture adhesives by the denture wearers in Ludhiana city

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## ABSTRACT

**Aim :** Denture adhesives have a long been recognized by the denture wearers as a useful adjunct to denture retention and stability. Many practitioners view adhesive usage as a reflection of lack of prosthetic expertise and poor clinical skills. A survey was conducted among complete denture wearers to explore their attitudes towards denture adhesives. The aim of the study was to evaluate the knowledge about denture adhesives among complete denture wearers indicated for use of denture adhesives visiting Dental Colleges in Ludhiana.

**Materials and Methods:** Patient questionnaire was prepared which consists of 12 questions which were easy for the patients to answer. The survey was conducted on 50 edentulous patients. The patient's approval was obtained before participation and everything was explained to the patients in their native languages who were not able to understand the questions.

**Result:** It was an observational study in which most of the patients were not using the adhesives for the retention and stability of the denture. About 44% of the patients were using adhesives. Those who were using the adhesives were satisfied with it. Majority of them got adapted to the new denture after the usage of the adhesives. About 56% were not using out of which majority of them were not advised. Those who were using they know the method how to use the adhesives.

**Conclusion:** In conclusion, this study have shown that the majority of the participants that hadn't tried adhesives because they don't required them and the participants that used denture adhesives on a regular basis do inform its efficacy.

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## 1. Introduction

Complete dentures are the one of the most important treatment options in prosthodontics. New complete dentures could be a disappointment to patients if they are ill-fitted, masticatory forces and phonetics are inadequate. Denture

adhesives play a vital role in retention of complete dentures, wherever indicated. Dentists need to know completely about denture adhesives and should be able to identify those patients who actually need them and should be able to educate them about the advantages, disadvantages and correct method of use of these products. Many complaints are reported by patients who use these prosthesis, especially patients with mandibular dentures, including problems of

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retention and instability, chewing difficulties, and low confidence, quality of life and satisfaction.<sup>1,2</sup> A main motive of prosthetic treatment is to restore masticatory function.<sup>3</sup> Along with it, improving denture retention and stability has always been major challenge in prosthodontics.<sup>4</sup> Denture adhesives benefit denture patients with improved fit, comfort, chewing ability and confidence if used properly.<sup>5,6</sup>

## 2. Materials and Methods

A patient questionnaire was first prepared and tested by the faculty members of prosthodontics department. This was observational study conducted on patients visiting the OPD of Prosthodontic department of Baba Jaswant Singh Dental College Hospital and Research Institute Ludhiana. The numbers of questions were 12 out of which all were mandatory and few had an option to choose multiple answers. An additional provision for writing specific comments was also provided for some of the questions. Sample consisted of 50 edentulous patients wearing complete dentures were selected. Patient's approval was obtained for their participation in the study. Demographic data was obtained. The results were prepared in graphs. Percentage evaluation was done for the responses obtained. The results were analyzed based on the collective response of each question among the 50 patients.

## 3. Results

In the present study, all patients who were wearing ill - fitting complete denture and required use of denture adhesives. Figure 1 explains that out of 50 subjects who had used denture adhesive were only 44% (n=22) and who have never used were 56 % (n=28). Out of the 28 subjects 64.3% (n=18) were not advised, 46.4% (n=13) were advised but not used it, 7.1% (n=2) they couldn't demonstrate the adequate technique to use denture adhesives and only 3.6% don't used because of its bad taste (Figure 2). Out of 22 subjects 95.5% came to know about denture adhesives from dentist and remaining from their friends (Figure 3). Denture adhesives are in different forms like in powder, cream, cushion pads but in present study patients were comfortable in using it in powdered form. Patients who were using denture adhesives were using it for months; about 59.1% used it for month, 36.4% used in between for 1month to 6 months and fewer used it for more the year(Figure 5). Out of 22 subjects 54.5% used it twice daily (Figure 6). Those who were using the denture adhesives all of them know the method of using it satisfactory. Half of them have stopped using the denture adhesive because they got adapted to new denture and fewer stopped because of gagging, nausea and bad taste (Figures 9 and 10).

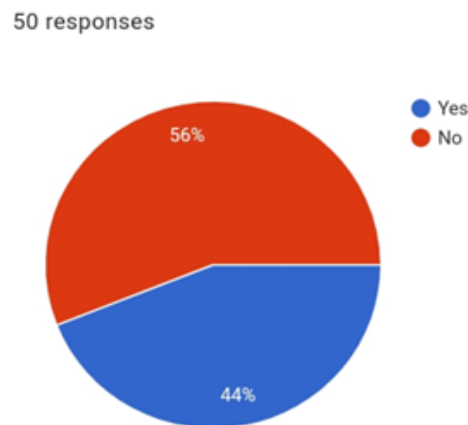


Fig. 1: Have you ever used denture adhesives?

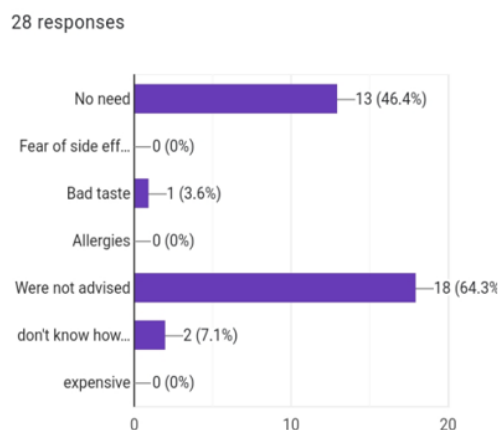


Fig. 2: If no then why?

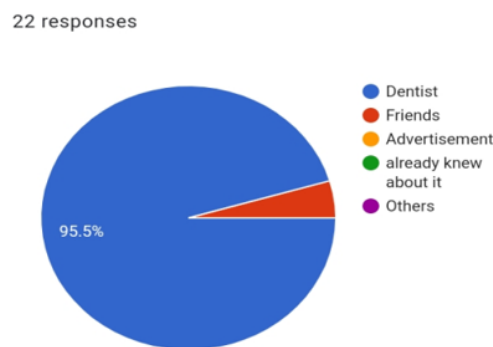


Fig. 3: Which way have you taken knowledge about debture adhesives?

22 responses

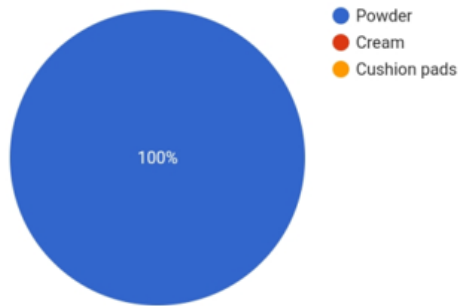


Fig. 4: What type of denture adhesive you use?

22 responses

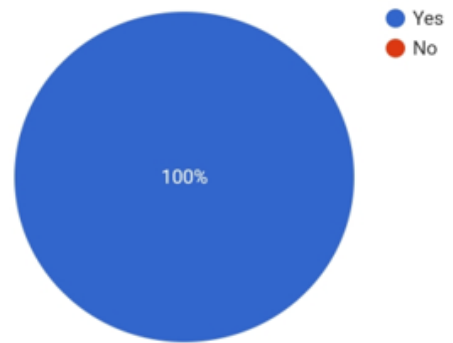


Fig. 7: Do you know the way to apply the denture adhesive?

22 responses

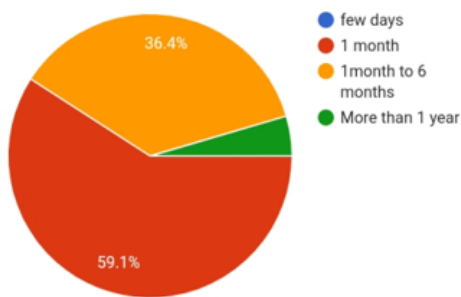


Fig. 5: How long have you used denturer adhesives?

22 responses

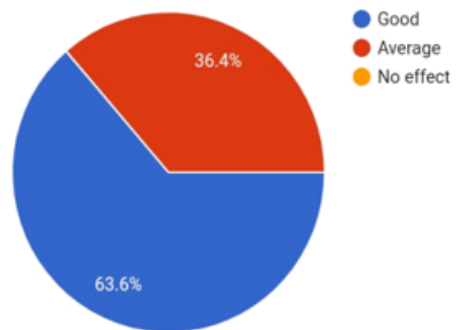


Fig. 8: How do you rate overall performance of denture adhesives?

22 responses

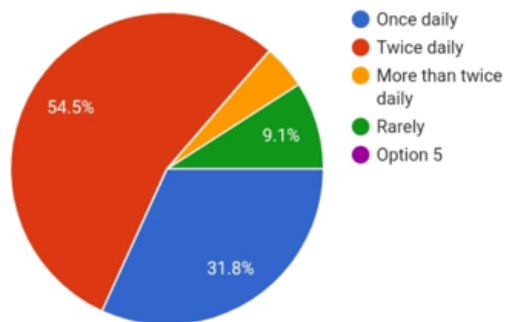


Fig. 6: How often do you use denture adhesives?

22 responses

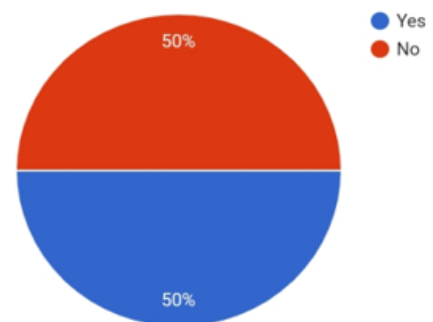


Fig. 9: Are you still using denture adhesives?

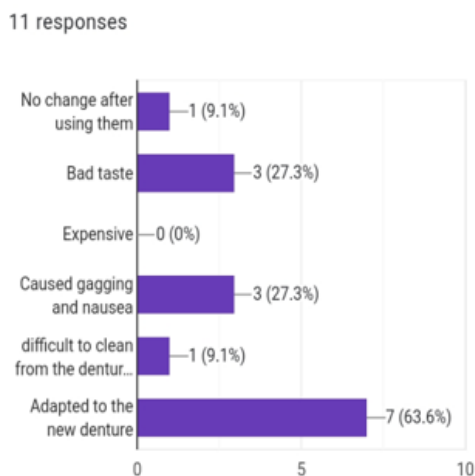


Fig. 10: If no then why?

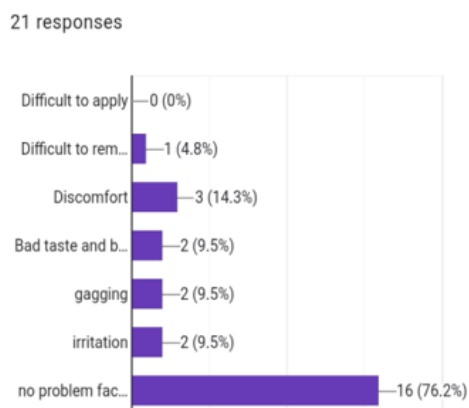


Fig. 11: What type of problem you faced during denture adhesive use?

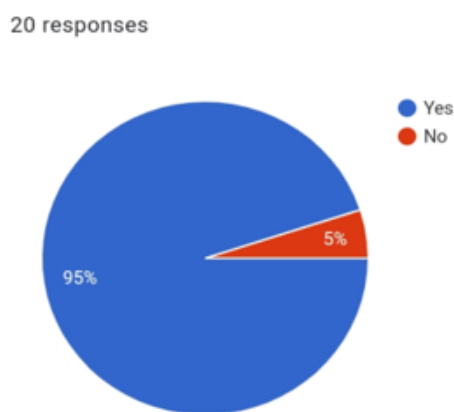


Fig. 12: Do you recommend use of denture adhesives to complete denture wearers in your friends and family?

#### 4. Discussion

Complete dentures constitute one of the most important treatment options in prosthodontics.

Knowledge and awareness go hand in hand, as one cannot be without the other. The treatment given to patients is almost always incomplete without proper education and motivation that our patients require to ensure a problem-free, functional and aesthetic prosthesis with ensured longevity.<sup>7</sup>

In this study, it was observed that the most of the participants surveyed (56%) had never tried denture adhesives. In a previous report, Özcan et al.<sup>8</sup> had done survey on 115 patients who came in Marmara University, Istanbul, Turkey, and observed that 92% had never tried denture adhesives. Coates<sup>9</sup> had done survey on 146 patients from the Adelaide Dental Hospital, Australia, and 67.1% had never tried adhesives.

Another important aspect observed in this survey was that 7.1% of the respondents did not know that how to use. It might be suggest either that these patients know how to manage their dentures well or dentist doesn't educated the patient about its usage.

In this study most of the patients using the denture adhesives was informed by the dentist itself. But on other hand many dentist view adhesive usage as the poor reflection of their prosthodontics treatment.

Denture adhesives improve well-fitting denture stability, mastication and mandibular movement during chewing. Dental Professionals also use denture adhesives in the clinical techniques while making dentures, particularly in study base fixation, bite registration, and improve the accuracy of denture try-ins. The use of denture adhesives significantly increases the force required to displace mandibular free-end saddle partial dentures.<sup>10</sup>

Somehow, Researchers<sup>11-13</sup> had done many distinct systematic reviews to find out the efficacy of denture adhesives. Papadiochou et al.<sup>11</sup> in a systemic review on denture adhesives, evaluated improvement in the masticatory performance, retention and stability of the dentures with denture adhesives. Patients were completely satisfied with the prosthesis when using denture adhesives. They found that in the majority of clinical research, patients using denture adhesives had increased mastication, retention and stability of the removable prosthesis.

Shu et al.<sup>12</sup> in another systematic review and meta-analysis investigated the efficiency of denture adhesives in complete dentures patients so that a clinical recommendation for prosthodontists and general practitioners can be provided. They find that the benefits of the use of denture adhesives tend to dominate the negative effects. They recommended that denture wearers, including patients with well-fitting dentures, can use cream or powder adhesives to further improve their masticatory performance and retention.

de Figueredo et al.<sup>13</sup> in their systematic review had analyzed that the patients having resorbed edentulous ridges, the mastication with the dentures were improved when cream denture adhesive were used compared to strips and also found the improvement in the masticatory performance of patient.

In this study, the most participants that regularly use adhesives were satisfied with its performance. Among those who have used adhesives but abandoned, 63.6% informed, it improves small amount of their dentures performance, and 36.4% that it didn't improve. There have been several reasons concerning the ceasing of adhesives usage were taste and consistence, but difficulty of removal from oral tissues and dentures, nausea and gagging

From the results of this study, it appears that denture adhesives are not considered a need among denture wearers. However, their properly indications and contra indications must be highlighted. The concept about denture adhesives among dental professionals is changing drastically. Thus, the results of this study suggests that “denture adhesives” should be taught / refined more intensively at dental colleges / institutions to promote the use of the adhesives in proper manner.

## 5. Conclusion

In conclusion, this study have shown that the majority of the participants that hadn't tried adhesives because they don't required them and the participants that used denture adhesives on a regular basis do inform its efficacy. Dental professionals should explain about the proper technique and the indications of the denture adhesives to the patients. Dentists should also explain the patients about the denture relining procedures to minimize the use of denture adhesives and further knowledge should be given about the use of implants on denture stability.

## 6. Source of Funding

None.

## 7. Conflicts of Interest

There is no conflict of interest.

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