

Patient acceptability and compliance for Beggs and Essix removable retainers - A comparative study

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ABSTRACT

Aim: The objective of this survey was to determine the patients' acceptance and compliance for using Beggs and Essix retainers. **Materials and Methods:** Questionnaire about the opinions and attitude toward the use of two types of retainers was prepared and circulated to 20 patients. Among them, 10 patients were given Beggs retainer and the rest were given Essix retainers. **Background:** Sheridan introduced the Essix appliance as an esthetic, comfortable, and inexpensive modern alternative to traditional retainers. Beggs retainers, traditionally, are used for the retention of corrected malocclusion. They are also very popular form of post-treatment orthodontic retainer. Both of them are removable retainers, the presence of wire components in Beggs retainers makes them different from Essix retainers. **Results and Conclusion:** In the population surveyed, Essix retainers were more acceptable in terms of use, speech, soft tissue impingement, esthetic efficiency, and insertion of the retainer, whereas subjects wearing Beggs retainer considered cleaning and maintenance of retainer more easier compared to subjects using Essix retainers. In terms of stability of correction, both retainers were equal.

KEY WORDS: Beggs, Essix, Esthetic, Retainer, Vacuum-formed retainer

INTRODUCTION

Moyers defined retention as "the holding of teeth following orthodontic treatment in the treated position for the period of time necessary for the maintenance of the result."^[1] Retention and relapse are the most important concerns in orthodontic treatment. Type of the retention and retainers should be considered during diagnosis and treatment planning.^[2-4] In spite of increased popularity gain through lingual retainers, dentists and patients have been ensured the use of removable appliances due to its advantages. Beggs retainer was popularized by P. R. Begg. Beggs consist of a labial wire that extends till the last erupted molar and curves into get embedded in acrylic that spans the palate. Essix appliance was first introduced by Sheridan in 1933 (DENTSPLY Raintree Essix Glenroe, Sarasota, FL, USA),^[5] Essix retainer is considered to be the modern, more esthetic, comfortable, and inexpensive retainers compared to those of traditional ones. Both Beggs and Essix are the most commonly

used removable retainers in orthodontics. The reason of undertaking this study is to evaluate and compare the acceptance and compliance of patients toward wearing Beggs and Essix retainers.

MATERIALS AND METHODS

A total of 30 patients who had completed their orthodontic treatment and already using retainers were selected randomly from the Orthodontic Postgraduate Department clinic at Saveetha Dental College and Hospitals.

Inclusion Criteria

The following criteria were included in the study:

- Already using removable retainers
- Treated by extraction or non-extraction method
- Adults over 18 years.

Exclusive Criteria

Patients with bonded retainers

- Patients who have undergone orthognathic surgery.

A questionnaire was prepared by investigator 1 and responses from the subjects were recorded by

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telecommunication followed by data tabulation. Demographic graphs were given.

RESULTS

In this study Essix retainers were more esthetically pleasing for 90% for the subjects than Beggs retainers (20%). The results showed that Essix was comparatively better and easy to use than the Beggs retainer. Not much of difference in terms of removal and insertion of the appliance was noted between the two appliances.

DISCUSSION

Patient compliance in wearing removable retention appliance is essential to prevent relapse. To improve patient compliance, the orthodontist should know the problems faced by the patient while using retainers. Hence, this study was undertaken to compare the patients toward using these two commonly used retainers.

A prospective study by Kumar and Bansal^[6] reported that subjects wearing Essix retainers considered their retainers were comfortable and has acceptable appearance than the subjects with Beggs retainers, whereas subjects with Beggs retainers considered that their retainers were more acceptable for biting and chewing compared to subjects wearing Essix retainer and also both the retainers showed some relapse. Another study by Saleh *et al.*^[7] reported that

vacuum-formed retainers were more acceptable than Hawley's appliance in terms of appearance, speech, gingival irritation, swallowing, self-confidence, and comfort. Subjects of Hawley's believed that their retainer is more durable than vacuum formed. In terms of fitness, hygiene, and biting, both retainers were equal. According to the study by Wild,^[8] vacuum-formed retainers when compared directly are preferred over Hawley's retainers and lead to higher level of compliance in short orthodontic retention phase of treatment. A study by Mirzakouchaki *et al.*^[9] stated that in adolescent patients, compliance was greater with vacuum-formed retainers than Hawley's retainers.

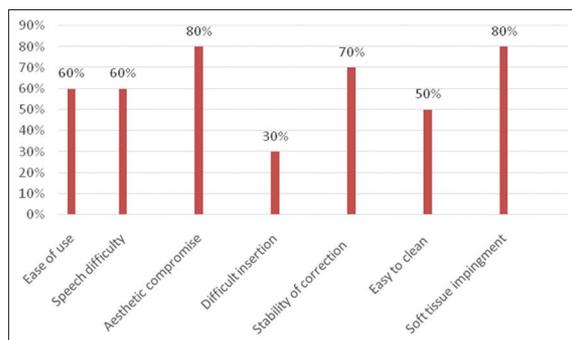
The present study also gives very similar results as the previously published studies, but this study was conducted only in adolescent population. It can be concluded from this study that Essix retainers were more esthetically pleasing (90%) for the subjects than Beggs retainers (20%). Majority of participants (80%) using Beggs retainer complained of soft tissue impingement, whereas only 20% of Essix group complained of soft tissue impingement. Speech difficulty was more with the Beggs retainer; however, the Beggs retainer was easy to clean than its counterpart. On the whole, the Essix was comparatively better and easy to use than the Beggs retainer; hence, the Essix retainer group had a better compliance. Not much of difference in terms of removal and insertion of the appliance was noted between the two appliances [Graphs 1 and 2]. Limitation of this study was a smaller sample size, no sample size calculation, and no statistical analysis. Further studies can be aimed at bigger sample size and performing proper statistics.

CONCLUSION

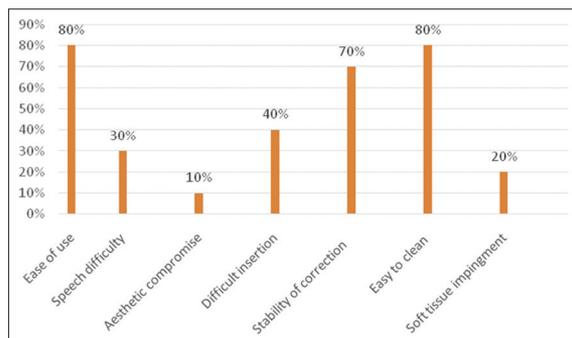
Essix retainer has better compliance than Beggs retainer except the maintenance of appliances was difficult. This can be due to inability of the patient to maintain due to the design of appliance.

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Graph 1: Patient compliance on Beggs retainer



Graph 2: Patient compliance on Essix retainer

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