ABSTRACT

**Background:** Increasing the flexural strength in flexible denture base resins is useful in severe under cut areas for longer duration. This can be achieved by increasing the parallel packing of long chain molecules in between the nylon fibres and by using various percentage of nylon being used.

**Aim:** The aim of the study is to compare the flexural strength of three different flexible denture base resins.

**Materials and Methods:** Twenty four samples of flexible denture base rectangular block samples were prepared in the measurement of 80 mm in length, 15 mm in width and 3 mm thickness.

- **Group A - Deflex**
- **Group B - Sabilex**
- **Group C - Lucitone FRS**

The samples were prepared in a rectangular blocks according to the manufacturer instructions and placed under universal testing machine. The results were statistically evaluated by using ANOVA and Posthoc test.

**Results:** Maximum flexural strength were obtained with Group C (Lucitone FRS) (526.88 ± 45.45) followed by group A (394.13 ± 38.91) and least by group B (242.25 ± 23.59). The difference was found to be statistically significant. (p-value < 0.001)
Conclusion: Within the limitation of the present study it can be concluded that, Group C (Lucitone FRS) had the maximum flexural strength followed by Group A (Deflex) and Group B. Group B (Sabilex) flexible denture base resin had the least flexural strength than other two flexible denture base resins.

KEY WORDS: flexural strength, Lucitone FRS, Deflex, Sabilex