

## **ABSTRACT**

**Background:** Caries is one of the most common problems in oral cavity. The development of caries can be prevented by controlling the diet, checking the oral health to the dentist every 6 months, scaling, flouridating, dental flossing, tooth brushing and mouth rinsing. Mouth rinsing is not only to maintain oral health but also to implement the sunnah of the Prophet Muhammad by using siwak (*Salvadora persica*) in mouth rinse. Using siwak in stick increases saliva volume so it maximizes the role of saliva in self-cleansing that contribute to prevent caries development.

**Objective:** The aim of this research was to determine whether there is a difference between rinsing the mouth by extract siwak (*Salvadora persica*) and infused siwak toward saliva volume.

**Method:** The study used a quasi-experimental method with one group pretest-posttest and involving 16 subjects selected through stratified random sampling. Subjects were rinsing the mouth by siwak extract, infused siwak and mineral water for 30 seconds with a wash-out period of one week. Saliva samples were taken before and after rinsing by spitting into a measuring glass. The volumes of the samples were measured using a measuring pipette. Results were analyzed by data distribution normality test with analysis method Shapiro-Wilk, data variance test with Levene's test and hypothesis test Friedman.

**Results:** The Friedman hypothesis test showed that  $p=0.166$  ( $p>0.05$ ).

**Conclusion:** There is no significant difference between rinsing the mouth by extract siwak (*Salvadora persica*) and infused siwak toward saliva volume.

**Keywords:** Saliva, saliva volume, mouth rinsing, *Salvadora persica*, extract, infused

## INTISARI

**Latar Belakang:** Karies merupakan salah satu masalah yang sering dijumpai di rongga mulut. Perkembangan karies dapat dicegah dengan berbagai cara seperti kontrol *diet*, pemeriksaan kesehatan mulut ke dokter gigi setiap 6 bulan sekali, pembersihan karang gigi, fluoridasi, penggunaan benang gigi, menyikat gigi dan berkumur. Berkumur selain dapat menjaga kesehatan mulut, dapat juga menjadi media melaksanakan sunnah Nabi Muhammad SAW dengan memanfaatkan siwak (*Salvadora persica*) dalam larutan kumur. Penggunaan siwak dalam bentuk kayu dipercaya meningkatkan volume saliva sehingga memaksimalkan peran saliva dalam *self cleansing*. Volume saliva yang meningkat dan *self cleansing* yang baik membantu dalam mencegah perkembangan karies.

**Tujuan:** Tujuan penelitian ini adalah untuk mengetahui apakah ada perbedaan antara kumur ekstrak siwak (*Salvadora persica*) dan infus siwak terhadap volume saliva.

**Metode:** Penelitian menggunakan metode *experimental quasi* dengan pendekatan *one group pretest-posttest* melibatkan 16 subyek yang dipilih melalui teknik *stratified random sampling*. Subyek berkumur dengan larutan kumur ekstrak siwak, larutan kumur infus siwak dan air mineral selama 30 detik dengan *washed out period* selama satu minggu. Sampel saliva diambil sebelum dan setelah berkumur dengan metode *spitting* ke dalam *measuring glass*. Sampel kemudian diukur volumenya menggunakan pipet ukur. Hasil pengukuran dianalisis menggunakan uji normalitas distribusi data metode analisis *Shapiro-wilk*, uji varians data *Levene's test* dan uji hipotesis *Friedman*.

**Hasil:** Hasil uji hipotesis *Friedman* menunjukkan bahwa  $p=0,166$  ( $p>0,05$ ).

**Kesimpulan:** Tidak ada perbedaan kumur ekstrak siwak (*Salvadora persica*) dan kumur infus siwak terhadap volume saliva secara signifikan.

Kata kunci: Saliva, volume saliva, kumur, *Salvadora persica*, ekstrak, infus