ABSTRACT

Background: *6-9 years old children are the people of age assessed vulnerable to caries. Several factors that is considered a common cause caries is a diet of foods , tooth brushing habits , and susceptibility teeth. Susceptibility teeth including the condition of the cavity of the mouth and surrounding environment that affects teeth, one of them is volume saliva .One way that has been examined to prevent the caries are gargling.The use of siwak (salvadora persica) as a contents of mouthwash were considered capable to increase the volume of saliva on children, in addition siwak also has mentioned in hadith of prophet Muhammad sallallahu'alaihiwasallam that capable of making mouths clean and bring the pleased of Allah .*

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 in 6-9 years old children.*

Method: *The study used a quasi-experimental method with one group pretest-posttest and involving 27 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 Wilcoxon.*

Results: *The Wilcoxon hypothesis test showed that 0,001 in siwak ekstract solution and 0,033 in infused siwak solution which means p<0.05*

Conclusion: *There is a difference between rinsing the mouth with siwak extract (Salvadora persica) and rinsing the mouth with infused siwak toward saliva volume in 6-9 years old children.*

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

INTISARI

Latar Belakang : Anak-anak usia 6-9 tahun adalah golongan usia yang dinilai rentan terkena karies. Beberapa faktor yang dinilai sering menjadi penyebab karies adalah diet makanan, kebiasaan menyikat gigi, serta kerentanan gigi. Kerentanan gigi mencakup kondisi rongga mulut serta lingkungan sekitar yang mempengaruhi gigi, salah satunya adalah volume saliva. Salah satu cara yang telah lama diteliti untuk mencegah timbulnya karies di antaranya adalah dengan berkumur. Penggunaan siwak (*Salvadora persica*) sebagai kandungan yang terdapat dalam obat kumur dinilai mampu meningkatkan volume saliva pada anak, selain itu siwak juga telah disebutkan dalam hadits Nabi Muhammad Sallallahu'alaihiwasallam mampu membuat mulut bersih dan mendatangkan ridha Allah.

Tujuan : Tujuan penelitian ini adalah untuk mengetahui apakah ada perbedaan antara kumur ekstrak siwak (*Salvadora persica*) dan infus siwak terhadap volume saliva pada anak usia 6-9 tahun.

Metode : Penelitian menggunakan metode quasi experimental dengan pendekatan *one group pretest-posttest* melibatkan 27 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 *Wilcoxon*.

Hasil : Hasil uji hipotesis *Wilcoxon* menunjukkan bahwa 0,001 pada larutan ekstrak siwak dan 0,033 pada larutan infus siwak yang berarti $p < 0,05$.

Kesimpulan : Terdapat perbedaan kumur ekstrak siwak (*Salvadora persica*) dan kumur infus siwak terhadap volume saliva pada anak usia 6-9 tahun secara signifikan.

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