

THE EFFECTIVENESS OF BLACK TEA GARGLING TO SALIVARY pH INCREASE ON ELEMENTARY SCHOOL STUDENTS

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ABSTRACT

Background: Tea is an herbal product which has an antibacterial effect and ability to increase salivary pH. Black tea contains polyphenols which can help prevent dental caries. The teeth of primary school-aged children are susceptible to caries, and prevention is needed as early as possible.

Research Objective: To discover the effectiveness of gargling with black tea to the salivary pH increase on elementary school students.

Research Method: This is a quasi-experimental research with the pretest-posttest design with control group. The population in this research was the 2nd grade students of SDN 1 Padokan (State Elementary School 1 of Padokan) a total of 58 students. Total Sampling was used for the sample collecting. The sample was divided to two groups, namely the treatment group of black tea gargling, and the other is the control group of distilled water gargling. The data analysis used Wilcoxon and Mann-Whitney.

Research Results: Based on the results, the average before gargling with black tea was 6.634, and increased to 7.297 after gargling with black tea. The average before gargling with distilled water was 6.648, and 6.669 after gargling with distilled water. The Wilcoxon Test result showed the value of $p= 0.000 < 0.05$ which means there was a significant difference between before and after gargling with black tea. The Mann-Whitney Test result showed the value of $p= 0.000 < 0.05$ so there was an effectiveness difference between gargling with black tea and distilled water to the salivary pH increase.

Conclusion: Gargling with black tea is effective in increasing the salivary pH on elementary school students.

Keywords: Gargling, Black Tea, Salivary pH, Elementary School Students

EFEKTIVITAS BERKUMUR AIR SEDUHAN TEH HITAM TERHADAP PENINGKATAN pH SALIVA PADA SISWA SEKOLAH DASAR

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ABSTRAK

Latar Belakang : Teh merupakan produk herbal yang memiliki efek antibakteri dan kemampuan meningkatkan pH saliva. Teh hitam mengandung *polifenol* yang dapat membantu mencegah terjadinya karies gigi. Gigi anak usia sekolah dasar rentan terkena karies dan diperlukan pencegahan sedini mungkin.

Tujuan Penelitian : Diketuinya efektivitas berkumur air seduhan teh hitam terhadap peningkatan pH saliva pada siswa sekolah dasar.

Metode Penelitian : Penelitian ini adalah *quasi experiment* dengan rancangan *pretest-posttest design with control group*. Populasi penelitian ini adalah siswa kelas II SD Negeri 1 Padokan berjumlah 58 siswa. Teknik pengambilan sampelnya *total sampling*. Sampel penelitian ini dibagi menjadi 2 kelompok, yaitu kelompok perlakuan berkumur air seduhan teh hitam dan kelompok kontrol berkumur aquades. Analisis data menggunakan *Wilcoxon* dan *Mann-Whitney*.

Hasil Penelitian : Hasil menunjukkan rerata sebelum berkumur air seduhan teh hitam 6,634 dan sesudah berkumur air seduhan teh hitam meningkat menjadi 7,297. Rerata sebelum berkumur aquades 6.648 dan sesudah berkumur aquades 6.669. Hasil uji *Wilcoxon* menunjukkan nilai $p=0,000<0,05$ yang berarti ada perbedaan yang bermakna antara sebelum dan sesudah berkumur teh hitam. Hasil uji *Mann-Whitney* menunjukkan nilai $p=0,000<0,05$ sehingga ada perbedaan efektivitas antara berkumur air seduhan teh hitam dan aquades terhadap peningkatan pH saliva.

Kesimpulan : Berkumur air seduhan teh hitam efektif meningkatkan pH saliva pada siswa sekolah dasar.

Kata Kunci : Berkumur, Teh Hitam, pH saliva, Siswa Sekolah Dasar