

SKRIPSI

**EFEKTIVITAS BERKUMUR LARUTAN MADU 15%
TERHADAP PENURUNAN INDEKS PLAK**



**FAKULTAS KEDOKTERAN GIGI
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EFEKTIVITAS BERKUMUR LARUTAN MADU 15% TERHADAP PENURUNAN INDEKS PLAK

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ABSTRAK

Plak merupakan deposit lengket yang terdiri dari bakteri dan produknya dalam bentuk biofilm yang berkembang biak di dalam suatu matriks pada permukaan gigi. Kontrol plak secara kimiawi dapat dilakukan dengan penggunaan obat kumur. Larutan madu dapat digunakan sebagai obat kumur alami karena memiliki kandungan yang bersifat antibakteri yaitu flavonoid dan hidrogen peroksida. Kandungan flavonoid pada madu bersifat antibakteri yang dapat menghambat pertumbuhan bakteri *streptococcus mutans* dan aktivitas enzim glukosiltransferase. Tujuan penelitian ini untuk mengetahui efektivitas berkumur larutan madu 15% terhadap penurunan indeks plak di Panti Asuhan Annisa Kota Padang.

Metode penelitian yang digunakan *pre-test post-test control group design* pada 26 responden yang merupakan penghuni Panti Asuhan Annisa Padang. Penelitian ini dilaksanakan selama dua hari dengan responden yang sama. Hari pertama 26 responden berkumur dengan akuades sebagai kelompok kontrol dan hari kedua 26 responden berkumur dengan larutan madu 15%. Pengukuran indeks plak dalam penelitian ini dilakukan dengan indeks plak modifikasi *Turesky-Gilmore-Glicman* dari *Quigley-Hein*.

Hasil uji Paired t-test menunjukkan nilai $p=0,000$ antara sebelum dan sesudah perlakuan pada masing-masing kelompok perlakuan yang artinya terdapat perbedaan bermakna. Pada uji Independent t-test berpasangan menunjukkan nilai $p=0,000$ antara kelompok perlakuan yang artinya terdapat perbedaan bermakna antara berkumur larutan madu 15% dan kontrol Akuades. Kesimpulan dari penelitian ini adalah larutan madu 15% efektif dalam menurunkan indeks plak di Panti Asuhan Annisa Kota Padang

Kata kunci : Larutan Madu, Indeks Plak

THE EFFECTIVITY OF GARGLING USING HONEY SOLUTION OF 15% ON DECREASING PLAQUE INDEX

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ABSTRACT

Plaque is sticky deposit consisting of bacteria and its products in the form of biofilm that breeds in a matrix on the surface of the teeth. Chemical plaque control can be done by using mouthwash. Honey solution can be used as natural mouthwash because it has antibacterial contents namely flavonoids and hydrogen peroxide. Flavonoid in honey is antibacterial that can inhibit the growth of streptococcus mutans bacteria and the activity of glucosiltransferase enzym. The objective of the study was to find out the effectivity of gargling using honey solution of 15% on the decrease of plaque index at Annisa Orphanage in Padang.

The method of the study was pre-test post-test control group design on 26 respondents who were residents of Annisa Orphanage in Padang. The study was conducted for two days with the same respondents. On the first day, 26 respondents gargled using aquades as the control group, and on the second day, 26 respondents gargled using honey solution of 15%. The measurement of the plaque index in the study was done by using the plaque index of Turesky-Gilmore-Glicmann modification from Quigley-Hein.

The result of the Paired t-test showed that the p value was =0,000 before and after the treatment of each treatment group showing that there was a significant difference. The paired Independent t-test showed that the p value was p=0,000 between the treatment groups which meant that there was a significant difference between honey solution of 15% and aquades. The conclusion of the study was that honey solution of 15% was effective in decreasing the plaque index at Annisa Orphanage in Padang.

Key Words : Honey solution, Plaque Index