

## INTISARI

Anak usia sekolah dasar berisiko karies tinggi, ini disebabkan mereka mempunyai kebiasaan mengkonsumsi makanan dan minuman kariogenik, dan anak masih kurang mengetahui untuk memelihara kebersihan gigi dan mulut. *Streptococcus mutans* adalah salah satu faktor penting dalam proses karies gigi. *Streptococcus mutans* adalah kuman yang kariogenik karena mampu meragikan karbohidrat. Berkumur madu adalah cara yang dapat mengembalikan fungsi saliva. Madu adalah salah satu hasil alam yang mempunyai aktivitas antibakteri. Madu mengandung hidrogen peroksida yang diproduksi oleh senyawa alami glukosa oksidase dan senyawa fenol. Tujuan dari penelitian ini adalah untuk mengetahui perbedaan sebelum dan sesudah berkumur madu konsentrasi 75% sebagai antibakteri terhadap pertumbuhan *Streptococcus mutans* di saliva anak usia 10-12 tahun.

Desain penelitian ini adalah uji klinis dan uji labolatoris dengan rancangan *One Group Pretest Posttest*. Jumlah subyek penelitian ini sebanyak 26 anak usia 10-12 tahun. Hari pertama, subyek mendapat perlakuan berkumur aquades. Selang satu minggu subyek berkumur madu konsentrasi 75%. Setiap berkumur subyek di ambil salivanya. Kemudian dilakukan perhitungan *Streptococcus mutans* menggunakan *Colony Counter* dengan metode *Colony Forming Unit* (CFU). Data yang diperoleh dianalisis *Shapiro-Wilk*, kemudian dilanjutkan menggunakan uji *Wilcoxon*.

Uji *Wilcoxon* menunjukkan hasil yang signifikan ( $p < 0,05$ ), yang berarti terdapat perbedaan terhadap pertumbuhan *Streptococcus mutans* pada saliva anak usia 10-12 tahun sebelum dan sesudah berkumur madu konsentrasi 75%.

Kata kunci: Anak usia 10-12 tahun, Saliva, Madu, *Streptococcus mutans*

## **ABSTRACT**

*Primary school aged children have high caries risk, due to their tendency to consume cariogenic diet. They are still not aware of maintaining oral hygiene. Streptococcus mutans has an important role in tooth caries formation. Streptococcus mutans is a kind of cariogenic microorganism which is able to ferment carbohydrate. Honey gargling can restore saliva function. Honey is one of natural resources which has antibacterial property. Honey contains hydrogen peroxide which as produced by natural compounds such as oxide glucose and phenol. The aim of the his study is to determine the difference between before and after honey gargling with 75% concentration as antibacterial toward Streptococcus mutans growth in saliva of 10-12 years old children.*

*The study used a clinical trial design continued with laboratory trial with one group pretest posttest design. There were 26 children aged 10-12 years old as subjects. At first, subjects were given aquades gargling. After one week, they were given 75% honey concentration. Saliva were taken after gargling. Furthermore, researcher counted the amount of Streptococcus mutans by Colony Counter with Colony Forming Unit (CFU). The normality test used Shapiro-Wilk, then continued by Wilcoxon test.*

*Wilcoxon test showed the significant difference ( $p < 0,05$ ), so there were differences between Streptococcus mutans growth in saliva of children aged 10-12 years old before and after 75% concentration honey gargling.*

*Keywords: Children aged 10-12 years, Saliva, Honey, Streptococcus mutans*