

INTISARI

Latar Belakang: Karies gigi masih menjadi masalah kesehatan dengan prevalensi tinggi pada anak usia sekolah dasar di Indonesia. Salah satu faktor yang berperan meningkatkan risiko karies adalah pola konsumsi makanan kariogenik, yang dapat meningkatkan kolonisasi bakteri *Streptococcus mutans* di rongga mulut. Anak usia 9-11 tahun, khususnya siswa kelas 4 Sekolah Dasar, berada pada fase kritis kolonisasi bakteri tersebut seiring erupsi gigi permanen pertama. Penelitian ini bertujuan untuk menganalisis hubungan antara pola konsumsi makanan kariogenik dengan kolonisasi *Streptococcus mutans* pada rongga mulut siswa kelas 4 Sekolah Dasar.

Metode Penelitian: Penelitian ini merupakan penelitian observasional dengan pendekatan korelasional yang dilakukan pada 94 siswa kelas 4 Sekolah Dasar di SD Negeri Tegalrejo 3 dan MI Ma'arif Bego, Yogyakarta. Pola konsumsi makanan kariogenik dinilai menggunakan food recall 1x24 jam dan food diary 1 hari, dengan hasil dinyatakan sebagai persentase kalori kariogenik. Kolonisasi *Streptococcus mutans* diperiksa pada saliva dan plak menggunakan Dentocult SM Strip Mutans Kit. Hubungan antar variabel dianalisis menggunakan uji korelasi Spearman Rank.

Hasil Penelitian: Rerata persentase konsumsi makanan kariogenik responden sebesar $29,60 \pm 18,08\%$. Terdapat hubungan positif yang kuat dan signifikan antara pola konsumsi makanan kariogenik dengan kolonisasi *Streptococcus mutans*, baik pada saliva ($r=0,715$; $p<0,001$) maupun plak ($r=0,559$; $p<0,001$).

Kesimpulan: Semakin tinggi pola konsumsi makanan kariogenik, semakin tinggi pula tingkat kolonisasi *Streptococcus mutans* pada rongga mulut siswa kelas 4 Sekolah Dasar.

Kata Kunci: siswa sekolah dasar, kariogenik, *Streptococcus mutans*

ABSTRACT

Background: Dental caries remains a health problem with a high prevalence among elementary school children in Indonesia. Cariogenic food consumption patterns are considered one of the factors contributing to caries risk, as they are associated with increased *Streptococcus mutans* colonization in the oral cavity. Children aged 9-11 years, particularly fourth-grade elementary school students, are considered to be in a critical phase of bacterial colonization, coinciding with the eruption of the first permanent teeth. This study was conducted to analyze the relationship between cariogenic food consumption patterns and *Streptococcus mutans* colonization in the oral cavity of fourth-grade elementary school students.

Methods: An observational study with a correlational approach was conducted, involving 94 fourth-grade elementary school students from SD Negeri Tegalrejo 3 and MI Ma'arif Bego, Yogyakarta. Cariogenic food consumption patterns were assessed using a 24-hour food recall and a one-day food diary, with the results expressed as the percentage of calories derived from cariogenic food. *Streptococcus mutans* colonization was examined in saliva and plaque samples using the Dentocult SM Strip Mutans Kit. The relationship between variables was analyzed using Spearman's rank correlation test.

Results: The mean percentage of cariogenic food consumption among respondents was $29.60 \pm 18.08\%$. A strong and significant positive relationship was found between cariogenic food consumption patterns and *Streptococcus mutans* colonization, both in saliva ($r=0.715$; $p<0.001$) and plaque ($r=0.559$; $p<0.001$).

Conclusion: It was concluded that the higher the cariogenic food consumption pattern, the higher the level of *Streptococcus mutans* colonization in the oral cavity of fourth-grade elementary school students.

Keywords: elementary school students, cariogenic, *Streptococcus mutans*