

# PENGARUH MENGGUNAKAN BUAH BELIMBING MANIS TERHADAP PENURUNAN PLAK INDEKS PADA MURID KELAS IV MI AT-TAUFIQ KABUPATEN GARUT

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## ABSTRAK

**Latar belakang:** Kesehatan gigi dan mulut perlu dijaga karena berpengaruh terhadap kesehatan tubuh secara keseluruhan. Kurangnya perhatian terhadap kebersihan gigi dan mulut dapat menyebabkan penumpukan plak yang berperan sebagai faktor utama terjadinya karies dan penyakit periodontal. Pencegahan karies gigi dapat dilakukan melalui kontrol plak yang tepat, salah satunya dengan meningkatkan konsumsi makanan berserat dan berair seperti buah belimbing manis (*Averrhoa carambola L.*). **Tujuan:** Menganalisis pengaruh mengonsumsi buah belimbing manis terhadap penurunan plak indeks pada murid kelas IV MI At-Taufiq Kabupaten Garut. **Metode:** Jenis penelitian yang digunakan yaitu penelitian kuasi-eksperimen dengan rancangan *One Group Pre-test and Post-test Design*. Jumlah sampel sebanyak 31 murid kelas IV yang dipilih dengan teknik *total sampling*. Alat ukur penelitian menggunakan *Patient Hygiene Performance (PHP)* Indeks, dan data dianalisis menggunakan Uji *Wilcoxon*. **Hasil:** Hasil pemeriksaan rata-rata skor *PHP* Indeks sebelum mengonsumsi buah belimbing manis sebanyak 100 gram sebesar 2,1 dengan kriteria sedang dan rata-rata skor *PHP* Indeks setelah mengonsumsi buah belimbing manis sebanyak 100 gram sebesar 1,5 dengan kriteria baik. Hasil Uji *Wilcoxon* diperoleh nilai *p-value* sebesar 0,001 dengan  $\alpha = 0,05$ , sehingga *p-value* < 0,05. **Kesimpulan:** Konsumsi buah belimbing manis sebanyak 100 gram berpengaruh terhadap penurunan plak indeks pada murid kelas IV MI At-Taufiq Kabupaten Garut.

**Kata kunci:** buah belimbing manis, plak indeks, *PHP* Indeks.

**Sumber:** 42 (1968-2023)

# THE EFFECT OF SWEET STAR FRUIT CONSUMPTION ON PLAQUE INDEX REDUCTION AMONG FOURTH-GRADE STUDENTS AT MI AT-TAUFIQ GARUT REGENCY

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## ABSTRACT

**Background:** Maintaining oral and dental health is essential because it contributes to overall health. Insufficient attention to oral hygiene can lead to plaque accumulation, which plays a major role in the development of dental caries and periodontal disease. Plaque control can be supported by the consumption of foods with high fiber and water content, such as sweet star fruit (*Averrhoa carambola L.*). **Objective:** To analyze the effect of sweet star fruit consumption on plaque index reduction among fourth-grade students at MI At-Taufiq, Garut Regency. **Methods:** This study employed a quasi-experimental research method with a one group pre-test and post-test design. The sample consisted of 31 fourth-grade students selected through a total sampling technique. Plaque levels were measured using the Patient Hygiene Performance (PHP) Index and data were analyzed using the Wilcoxon test. **Results:** The mean PHP Index score before consuming 100 grams of sweet star fruit was 2.1, which was classified as moderate. After consuming 100 grams of sweet star fruit, the mean PHP Index score decreased to 1.5, which was classified as good. Statistical analysis showed a *p*-value of 0.001 with a significance level of  $\alpha = 0.05$ , indicating a statistically significant difference. **Conclusion:** The consumption of 100 grams of sweet star fruit affects plaque index reduction among fourth-grade students at MI At-Taufiq, Garut Regency.

**Keywords:** sweet star fruit, plaque index, PHP Index.

**Source:** 42 (1968-2023)