

## **CORRELATION BETWEEN STUNTING AND EARLY CHILDHOOD CARIES IN TODDLER**

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### **ABSTRACT**

**Background :** Stunting condition can lead to interrupted child development including developmental problems in the oral cavity. Stunting can also cause disturbances in tooth development, impaired enamel development, and delayed eruption of primary teeth. In addition, stunted children are also more susceptible to dental caries.

**Objective :** To investigate the correlation between stunting and Early Childhood Caries (ECC) in toddler.

**Methods:** Analytic observational research with a cross-sectional study design. The study population was 46 toddlers selected using total sampling technique. This research was analyzed using Kendall's Tau b Test. The research instrument used the Early Childhood Caries (ECC) examination format and nutritional status assessment format. The study was located at Posyandu Minggir II and Posyandu Kliran IX, Kelurahan Sendangagung, Kecamatan Minggir in February-March 2023.

**Result:** Nutritional status assessment showed 67.4% normal nutritional status, 26.1% stunted, and 6.5% severe stunted, whilst the results of Early Childhood Caries (ECC) screening showed 39.2% type I, 26.1 type III, 23.9% type II, and 10.9% free ECC. The results of cross tabulation between nutritional status and ECC showed that respondents who had short nutritional status suffered type II ECC as many as 8 toddlers (66.7%). The results of Kendall's Tau b test obtained a p-value of 0,011 ( $p < 0,05$ ) with a correlation coefficient of 0,342, meaning that there is a moderate relationship between variables.

**Conclusion:** The more severe the nutritional status of stunting in toddlers, the higher the severity of ECC.

**Keywords:** Early Childhood Caries (ECC), stunting, toddler.

## HUBUNGAN STATUS GIZI PENDEK (*STUNTING*) DENGAN *EARLY CHILDHOOD CARIES* (ECC) PADA ANAK BALITA

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### ABSTRAK

**Latar Belakang:** Kondisi *stunting* dapat menyebabkan perkembangan anak terganggu diantaranya terdapat gangguan perkembangan pada rongga mulut. *Stunting* dapat menyebabkan gangguan pada pematangan gigi, gangguan perkembangan email, dan keterlambatan erupsi gigi sulung. Selain itu, pada anak *stunting* juga lebih rentan untuk terkena karies gigi.

**Tujuan Penelitian:** Diketuinya hubungan status gizi pendek (*stunting*) dengan *Early Childhood Caries* (ECC) pada anak balita.

**Metode Penelitian:** Penelitian observasional analitik dengan pendekatan *cross sectional*. Sampel penelitian berjumlah 46 balita menggunakan total sampling. Analisis data menggunakan Uji *Kendall's Tau b*. Instrumen penelitian menggunakan format pemeriksaan ECC dan format penilaian status gizi. Penelitian berlokasi di Posyandu Minggir II dan Posyandu Kliran IX pada bulan Februari-Maret 2023.

**Hasil Penelitian:** Hasil penilaian status gizi menunjukkan 67,4% status gizi normal, 26,1% status gizi pendek, dan 6,5% status gizi sangat pendek. Hasil pemeriksaan ECC menunjukkan 39,2% tipe I, 26,1 tipe III, 23,9% tipe II, serta 10,9% bebas ECC. Hasil tabulasi silang status gizi dengan ECC didominasi oleh balita yang memiliki status gizi pendek mengalami ECC tipe II sebanyak 8 balita (66,7%). Hasil uji *Kendall's Tau* diperoleh *p-value* sebesar 0,011 ( $p < 0,05$ ) dengan nilai koefisien kolerasi 0,342 artinya terdapat hubungan antar variabel yang moderat.

**Kesimpulan:** Semakin parah status gizi pendek (*stunting*) pada anak balita, semakin meningkat keparahan ECC.

**Kata Kunci:** *Early Childhood Caries* (ECC), status gizi pendek (*stunting*), anak balita.