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**International Journal of Health Sciences (IJHS)**Journal Homepage: <https://jurnal.agdosi.com/index.php/IJHS/index>

Volume 3 | Number 2 | June 2025 |



## **Descriptive of Night Tooth Brushing Habits with Dental Caries Status in Grade I, II, III Children at Makassar Public Elementary School**

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### **Abstract**

Dental caries is a common dental health problem in children, especially in primary school-aged children. One of the risk factors is poor tooth brushing habits, particularly neglecting to brush teeth at night before sleeping. This study aims to describe the night tooth brushing habits and their relationship with the dental caries status in Grade I, II, and III students at a public elementary school in Makassar. This descriptive study involved 90 students selected using purposive sampling. Data were collected using a structured questionnaire and clinical dental examination to assess caries status based on the DMF-T index. The results showed that 62% of the children did not regularly brush their teeth at night. Among those who did not brush at night, 78% had moderate to high dental caries. In contrast, only 22% of children who regularly brushed at night experienced similar conditions. The findings suggest a strong association between night brushing habits and caries status. Strengthening oral hygiene education for children and parents is recommended to reduce the prevalence of caries.

**Keywords:** Night Tooth Brushing, Dental Caries, Children, Oral Hygiene, Elementary School

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### **1. Introduction**

Dental caries is a chronic condition affecting children globally and is particularly prevalent in developing countries. The condition is primarily caused by poor oral hygiene practices, including the absence of regular tooth brushing, especially at night before sleep. Night brushing is crucial because the salivary flow, which naturally helps cleanse the oral





cavity, decreases during sleep, making the teeth more vulnerable to acid attack by cariogenic bacteria.

In Makassar, the prevalence of dental caries among elementary school children remains high. The early grades (I–III) are a critical period to establish proper dental habits. This study aims to describe the night tooth brushing habits and how they relate to caries status among children in grades I to III at a public elementary school in Makassar.

## 2. Research Methods

This study employed a descriptive quantitative design. The population consisted of students from grades I, II, and III at a public elementary school in Makassar. A total of 90 children were selected using purposive sampling.

### Data Collection:

- a) Questionnaire: To assess night tooth brushing habits.
- b) Clinical Examination: To assess dental caries using the DMF-T (Decayed, Missing, Filled Teeth) index.

### Inclusion Criteria:

- a) Students in grades I, II, III.
- b) Present at the time of data collection.
- c) Parental consent obtained.

### Exclusion Criteria:

- a) Children undergoing dental treatment.
- b) Children with systemic illness affecting oral health.

## 3. Results And Discussion

This study employed a descriptive quantitative design. The population consisted of students from grades I, II, and III at a public elementary school in Makassar. A total of 90 children were selected using purposive sampling.

### Data Collection:

Questionnaire: To assess night tooth brushing habits.

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**Inclusion Criteria:**

Students in grades I, II, III.

Present at the time of data collection.

Parental consent obtained.

**Exclusion Criteria:**

Children undergoing dental treatment.

Children with systemic illness affecting oral health.

**4. Conclusion**

There is a clear pattern showing that children who do not brush their teeth at night are more likely to develop dental caries. Improving awareness and behavior regarding night brushing habits could help reduce the burden of caries among school-age children. School-based oral health programs should be intensified to instill good dental hygiene practices from an early age.

**5. Compliance with Ethical Standards****Funding:**

This research did not receive funding from any institution, whether government, private, or non-profit organization.

**Conflict of Interest:**

The author declares that there is no conflict of interest in the implementation and reporting of the results of this research.

**Ethical Approval:**

This research has received approval from the Health Research Ethics Committee with approval letter number. All research procedures were carried out in accordance with the principles of the Declaration of Helsinki.

**Informed Consent:**

Prior to data collection, participants were given an explanation of the purpose, procedures, risks, and benefits of the research. Participants who were willing to participate were asked to sign a consent form after being given an explanation (informed consent).

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