



Oral Hygiene Examination and Dental Health Education of Children at Islamic Boarding School Palembang

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ABSTRACT

Previous studies have shown that the majority of children in Indonesia have poor oral hygiene. Children who attend boarding school are sometimes facing difficulties in accessing dental health providers. In this kind of situation, knowledge of oral health and how to do a proper dental cleaning is crucial and must be mastered not only by students but also their teachers who spend most time with them at the boarding school. This goal can be achieved by the collaboration of dental public health and the school and community members.

1. Introduction

Poor oral health of children is still a major challenge that has to be overcome by dental practitioners in Indonesia. Oral problems are not only encountered in children but also teenagers and adults, with more than 70% of the population are having dental caries.¹ Dental caries is a hard tissue disease caused by specific types of bacteria that produce acid in the presence of fermentable carbohydrates, that leads to hydroxyapatite demineralization. Tooth decay may negatively impact general health, especially in children, and affecting growth, emotionally and socially. Untreated dental

caries will result in pain, the spread of infection, loss of appetite, and poor performance in school.¹ WHO and FDI set a standard that 50% of 5-6 year-olds to be free of dental caries, and by the year 2000, the global average for dental caries was to be no more than 3 DMFT at 12 years of age.² However, Moreira and Rafael in their study revealed that DMFT index in Indonesia was still relatively high compared to other countries in South East Asia and are in the categories of risk for the highest DMFT.³

According to the result of Riskesdas in 2018, the proportion of oral problems in South Sumatra



province was still high, approaching 50%. Furthermore, the habit of practicing good oral hygiene was still very low. It indicates that the majority of population was still not aware of the importance of tooth brushing. The occlusal surfaces of molar teeth have many grooves and pits that favor plaque accumulation and are considered the most susceptible sites to dental caries. There are many ways to prevent tooth decay including mechanical plaque removal using a toothbrush, mouthwash, and application of topical fluoride. Pit and fissure sealants are another way clinically proven to prevent occlusal caries. The sealants will close the narrow fissures to avoid food entrapment and provide a smooth surface to make cleaning easier. The most common materials used as fissure sealants are resin based and glass ionomer cements (GIC). GIC contain fluoride and are less moisture sensitive. Despite having poor retention, the cement may still prevent occlusal caries due to this characteristic.⁴

A regular program containing dental health education and preventive measures is needed to enhance oral health in school-age children. Children who attend boarding school are sometimes facing difficulties in accessing dental health providers. In this kind of situation, knowledge of oral health and how to do a proper dental cleaning is crucial and must be mastered not only by students but also their teachers who spend most time with them at the boarding school. This goal can be achieved by the collaboration of dental public health and the school and community members.

2. Methods

This social service was conducted by the staff and students of Dentistry Study Program of Faculty of Medicine Universitas Sriwijaya. The activities consist of dental health education, oral health examination, and preventive intervention for students at the Pesantren Kampung Tauhid Sriwijaya in Ogan Ilir. The main target of dental counseling is students and

also their teachers and school administrators. WHO oral health assessment form was used to examine the oral health and DMFT score of the students. The procedure of pit and fissure sealants were applied for students of 7th and 9th grade by using glass ionomer cements.

3. Discussion

Dental caries is the most prevalent oral disease and regarded as a public health problem worldwide. The etiology is multifactorial, including poor oral hygiene, nutritional status, and also knowledge and habits concerning oral health among teachers and parents.⁵ Pesantren Kampoeng Tauhid Sriwijaya is an Islamic Boarding school in Ogan Ilir, South Sumatra. It is located in a rural area between Palembang and Inderalaya and quite far from the nearest public health center. Difficult access to dental health providers and the absence of health facilities inside the school area may be significantly affecting the student's behavior on the maintenance of oral hygiene. However, this needs to be confirmed in further studies.

Parents at home and teachers at school have essential roles in maintaining proper oral hygiene of the children, and the education given by parents and teachers will have an impact on a child's behavior.⁶ However, children attending a boarding school lack parental supervision. The role of parents are replaced by the teachers, and teachers may be overwhelmed to look closely at the students oral health one by one. It suggests the importance of strengthening the knowledge of dental health for students, and also for their teachers.

Dentistry Study Program Faculty of Medicine of Universitas Sriwijaya aims to play an active role in helping the government and the surrounding community to improve dental and oral health. Social services are scheduled regularly, with several core activities such as dental counseling, oral health examination, and also preventive and curative



measures. This event involving lecturers and dental students in collaboration with Medical Student Team, Faculty of Medicine, Universitas Sriwijaya. The expected results are the enhancement of awareness to maintain proper oral hygiene and prevention of tooth decay by application of pit and fissure sealants.

4. Conclusion

Oral health behavior among school-age children influenced by various factors, including socio-environmental factors and characteristics of the oral health services available.

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