

## The Correlation between Mother's Knowledge and Parenting Toward Childhood Caries in the Remote Area

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### Abstract

Caries in children has been a health problem worldwide due to its high prevalence. Children's dental health implicates interaction between child, parent and dentist. Mother's knowledge and behaviour in maintaining children's dental health affect children behaviour. There are three types of parenting such as authoritative, authoritarian and permissive.

This study was to analyze the correlation between mother's knowledge and parenting toward elementary school children's caries prevention in remote area.

This study was cross sectional using simple random sampling. The samples consisted 40 mothers with 6-9 years old children in the Oelnaineno Village, Takari sub-district Takari, Kupang. Data obtained from questionnaire to measure mothers' knowledge and parenting type in attempt of elementary school children's caries prevention. Multinomial logistic regression was used with significance level on  $p=0.05$

There was significant correlation between mothers' knowledge and parenting ( $p=0,042$ ). Mothers' parenting is affected by knowledge that affects the children. Mother with good knowledge used authoritative parenting. Mothers with authoritative parenting have the lowest prevalence of children's caries.

Mothers' knowledge and parenting correlated to prevent dental caries in elementary school children.

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### Introduction

Maintenance of children's dental health involves interaction between children, parents and dentists. Parent's attitudes and behavior, especially mothers in maintaining dental health have a significant effect on the children's behavior. Maintenance of children's teeth should be done from an early age, from the primary teeth to the permanent teeth. Parent should pay serious attention to their children due to the children's permanent tooth growth was determined by the primary tooth condition.<sup>1,2,3</sup>

Dental caries has not been prioritized by parents. They neglected to maintain their children dental health status. Previous studies conducted

by Puspitoningsih et al (2012), showed as many as 64% mothers said that their children had dental caries. Mother thought that caries was not a serious health problem for their children, thus they did not urge their children to go to health center to seek dental treatment. The children were not taught to brush their teeth 2 times daily.<sup>4</sup>

Parenting patterns have important relationships as a predictor of child behavior development. Law et al (2007), defines three types of parents parenting: authoritative, authoritarian, and permissive. Authoritarian parenting (high control, less friendly), Authoritative parenting (friendly, high control), Permissive parenting pattern (too friendly, little control). Aminabadi et al. (2008), suggested that permissive and authoritarian parenting patterns are associated with poor behavior in oral hygiene compared with authoritative parenting.<sup>5,6</sup>

Knowledge is one of the factors that influence mother's parenting. Children knowledge about dental health should be a priority for their

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mother. Children dental health status is necessary for the development and growth of teeth. Knowledge is also influenced by several things such as age, education, socioeconomic status, experience, mass media information and the environment. Mothers who understand about dental caries (causes and ways to prevent) will teach their children about dental health. Mothers will guide, educate and supervise their child and take appropriate action to prevent the dental caries.<sup>7,8,9</sup>

The objective of the study was to analyze the correlation between mother's knowledge and parenting in the effort to prevent the dental caries of elementary school children in the remote area.

### Materials and methods

This study has been received approval ethical clearance letter of human subjects from Faculty of Dental Medicine Universitas Airlangga with number 025/HRECC.FODM/III/2017. This research was analytic observational research with cross sectional and simple random sampling method.

Sample inclusion criteria are mother of 6-9 years old children who live in Oelnaineno Village and take care of their own child. Data collected through interviews using a questionnaire. Instrument of knowledge consisted of 10 questions about dental caries. The correct answer is given a value of 1 and incorrect value 0. The classification of knowledge scores are divided into 2; score  $\geq 50\%$  good category and score  $<50\%$  bad category. In addition, mother parenting consisted of 3 types; authoritarian, authoritative and permissive. Each group represented by 6 statements ( $n=18$  instruments). The dominant parenting type is determined highest total score from 6 statements.<sup>10</sup>

The Data was analyzed using IBM SPSS Statistics versions 24.00 (New York, USA). Data was analyzed to describe the level of knowledge and parenting using univariate analysis. The correlation between knowledge and parenting was analyzed using bivariate analysis with multinomial logistic regression test. The significance value was determined with  $p < 0.05$  (95% confidence level).

### Results

#### Distribution of demographic characteristics of respondents

The data of this study indicate that the age of majority of primary school children is between 25-39 years old as many as 25 people (62.5%). Danang (2010) said that mother age's influence parenting, too old or young cause parenting becomes less optimal. Physical and psychosocial strength are needed for parenting. Mothers aged 25-39 years have reached maturity in thinking and behaving. Mother can educate and nurture children according to the correct parenting perception and the child is able to reach the stage of development according to his time.<sup>11</sup> Respondents in this study were housewives with primary school graduate education of 33 people (82.5%). It showed that mothers in Oelnaineno village have low education. Another factor that plays a role in parenting was the number of the children. mothers in Oelnaineno Village have more than 2 children as many as 55%. Supartini (2004) said that parents who have previous experience in caring children will be better prepared to take care, able to observe signs of growth and development of children properly.<sup>12</sup>

#### The Correlation between Mother Knowledge and Parenting.

Based on the multinomial logistic regression test result obtained  $p$  value = 0.042, there was a correlation between knowledge and parenting in efforts to prevent primary school children dental caries. The result of cross tabulation showed that the respondents who have good knowledge with the most dominant authoritative parenting type was 10 respondents (58.8%), whereas the respondents who have bad knowledge with the dominant authoritarian parenting type was 12 respondents (52.2 %).

### Discussion

Based on the data of research in Oelnaineno village was known that knowledge has a significant relationship with mother's parenting with a significance of  $p=0.042$ . Accordance with some previous study said that knowledge or cognitive is a very important domain to shape someone actions (overt behavior). Behavior based on knowledge better than behavior not based on knowledge.<sup>13,14</sup>

Some study said that if a person has good knowledge then action will be directly proportional to knowledge. Mother's behavior influenced by knowledge and it has a direct impact on the child's behavior. Mother parenting is significantly associated with knowledge about children caries. Mothers who know about oral health will teach their children as early as possible through parenting. Mother parenting for children are based on three types of parenting: authoritarian, authoritative and permissive.<sup>15,16,17</sup>

The result of this study showed that mother with good knowledge used authoritative parenting method of 58.8%. In accordance with some study said that well-informed mothers with authoritative parenting types are more skilled at guiding children in preventing dental caries thus can decrease dental caries in children. Mother parenting is a decisive factor to overcome children attitude and behavior. Mother's knowledge has a significant influence on children attitude and behavior. The better Mother's knowledge about oral health, the better the oral health of the child.<sup>18,19</sup> This is in contrast to some study said that good knowledge did not correlate with good parenting. Good knowledge did not necessarily have good attitude and good action to apply his knowledge into action.<sup>20,21</sup>

Mothers with poor knowledge apply authoritarian parenting as much as 52.2%. In accordance with some study said that mothers with poor knowledge collaborate positively with authoritarian attitudes.<sup>22</sup> This is influenced by attitudes and characteristics of low income families, less concerned parent with their children's dental health, lack of information. Parents with authoritarian types in China, Hong Kong, America, Europe, and Australia tend to be poor knowledge that affects their children dental health. Mother parenting is an important factor that affects children attitude and behavior.<sup>23,24</sup>

Mother in Oelnaineno Village has poor knowledge. It was caused by several factors such as limited access to information about dental and oral health, especially dental caries., live in rural area, and local culture.<sup>25,26</sup> People have been used traditional medicine with leaves and roots to treat diseases including dental and mouth diseases.<sup>27,28</sup> In accordance with study said that poor knowledge in rural areas due to lack of information about oral and dental health has an impact on the increase prevalence of dental caries in primary school children. Mothers,

who have low knowledge about dental caries prevention tend to pay less attention to children dental health status.<sup>26,29</sup>

## Conclusions

There was a significant correlation between mother's knowledge and parenting dental caries prevention in primary school children at remote areas. Mothers with good knowledge apply authoritative parenting to prevent childhood dental caries.

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## Declaration of Interest

The authors declare no conflict of interest.

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