Description of Mother's Knowledge and Attitudes About Dental and Oral Health in Pre-School Children 3-4 Years Old

Krisdayanti Zalukhu¹, Anita Veronika², Risda Mariana Manik³, Bernadetta Ambarita⁴

¹,²,³,⁴ Program Studi D3 Kebidanan, STIKes Santa Elisabeth Medan, Indonesia

ABSTRACT

Dental and oral health is an integral part of overall health that affects a person's quality of life. Where preschool children are an age group that is susceptible to dental and oral diseases. This study aims to describe the knowledge and attitudes of mothers who have preschool children aged 3-4 years at the Bertha Inpatient Primary Clinic in 2023. This research is a descriptive study using a survey method by distributing questionnaires. The sample of this study was 30 respondents from the mother at Bertha Primary Clinic who had preschool children aged 3-4 years, with the sampling technique that was using accidental sampling. Based on the research, it was found that the knowledge of respondents (mothers) regarding children's dental and oral health was in the good category, 14 respondents (46.7%), enough for 13 respondents (43.3.7%), and lacking for 3 respondents (10.0%). And mother's attitude regarding children's dental and oral health with a positive category of 27 respondents (90.0%) and a negative category of 3 respondents (10.0%). It is hoped that the results of this study can add information about how to care for dental and oral health problems in preschool children.

Keywords:
Dental and Oral Health, Mother, Knowledge, Attitude, Pre-school 3-4 Years.

Email:
kriszalukhu03@gmail.com
anitaveronika09@gmail.com
risda.mariana@gmail.com
detta_ambarita85@yahoo.com

1. INTRODUCTION

Teeth and mouth are one part of the body's organs that have an important function because everything that enters the body will go through the mouth. Many people are not aware that the onset of dental and oral disease originates from the health of the oral cavity as a whole. According to the Regulation of the Minister of Health of the Republic of Indonesia Number 89, Dental and Oral Health is a healthy and undamaged condition of the hard and soft tissue of the teeth and elements related to the oral cavity that allows individuals to eat, talk and interact socially without dysfunction, aesthetic disturbances, and discomfort due to disease, occlusion deviation and loss of teeth so as to be able to live productively socially and economically [1].

Pre-school children are an age group that is susceptible to dental and oral diseases. Dental and oral health problems are a very important concern in health development in Indonesia and throughout the world. With a little help from someone, especially parents, this period will build a safe and solid foundation for the entire childhood of children [2].

Factors that influence dental and oral health problems in general include behavioral factors, environmental factors, and access to health facilities. Dental and oral health problems experienced by pre-school children are due, in part, to the lack of knowledge and attitudes of mothers regarding the maintenance of children's dental and oral hygiene [3]. During the pre-school period, mother's knowledge and attitudes are very important in shaping behavior that supports or does not support dental and oral hygiene in pre-school children for the development and growth of good teeth. Where the mother plays a directing role, provides understanding, and provides facilities for her children to maintain healthy teeth and mouth [4]. According to Riskesdas 2018, the environmental factor for dental and oral health problems is that many preschool and school-age children have bad habits in maintaining oral hygiene where they really like to eat sweet foods, but do not realize the importance of brushing their teeth [5].
According to the Oral and Dental Health Status Report from WHO data for 2022 estimates that oral disease affects nearly 3.5 billion people worldwide, and 3 out of 4 people affected live in middle-income countries. Globally, an estimated 2 billion people suffer from dental caries, 1 billion people suffer from gum disease due to tooth loss and 514 million children suffer from primary dental caries. In European, American, Asian countries, including Indonesia, the prevalence reaches 80-90% of preschool children with dental caries. It is estimated that 90% of preschool-aged children worldwide have suffered from caries where the lowest prevalence is in Africa [6]. According to the 2021 Riskesdas, it shows that the Indonesian people have dental and oral health problems in general at 57.6%, and in the province of North Sumatra people who have damaged teeth reach 54.6%, while based on the characteristics of the 3-4 year age group it is 41.1% of preschoolers in Indonesia experience damaged, cavities, or diseased teeth [6].

Based on the 2018 Riskesdas Report, it is stated that the community is not yet aware of the importance of maintaining dental and oral health. This can be seen from 94.7% of Indonesians brush their teeth every day, but only 2.8% brush their teeth on time and correctly. Of the people in North Sumatra, 92.9% brush their teeth every day, but only 1.6% brush their teeth on time and correctly. Based on the characteristics of the age of 3-4 years, 86.7% brushed their teeth every day, but only 1.1% brushed their teeth on time and correctly [5]. According to WHO, the most common problems related to teeth and mouth are cavities (dental caries), loose teeth, gum disease (gingivitis), oral cancer, periodontitis, cracked/broken teeth, sensitive teeth, tartar, bad breath, canker sores, colored teeth and bleeding gums [7].

According to the Oral and Dental Health Status Report of WHO data 2022 estimates that oral disease affects nearly 3.5 billion people worldwide, and 3 out of 4 affected people live in medium-income countries. Globally, an estimated 2 billion people suffer from dental caries, 1 billion people suffer from gum disease due to tooth loss and 514 million children suffer from primary dental caries. In European, American, Asian countries, including Indonesia, the prevalence reaches 80-90% of preschool children with dental caries. Around the world, it is estimated that 90% of pre-school-age children have suffered from caries where the lowest prevalence is in Africa [6].

According to the results of Kirana et al's research, (2022) entitled Overview of Mother's Knowledge about maintaining oral and dental health for the incidence of tooth decay in preschool children. Based on the 10 (ten) articles reviewed, it was found that broken teeth/cavities in children were mostly in the high criteria of 60% (6 articles) and as many as 30% (3 articles) reported incidents of rampant broken teeth/cavities. This shows that tooth decay/cavities in preschoolers is still high. Factors that influence the incidence of cavities in children are the habits of mothers who are not good for maintaining children's dental health [8].

Based on the Federation Dentaire Internationale (FDI) World Dental Federation, many people in the world experience problems with teeth and mouth due to excessive sugar consumption, lack of dental health care, and difficulty accessing standard dental health services. Tooth decay occurs due to a number of factors (multiple factors) that influence each other, namely internal and external factors. Internal factors are factors that are directly related to teeth, one of which is irregular tooth arrangement, disorders of the jaw joints, and reduced alveolar bone (resorption). External factors are factors that are not directly related to the process of tooth decay, such as the habit of consuming sweet foods but not brushing your teeth. The high incidence of tooth decay requires optimal action, especially in preventing tooth decay in pre-school children [9].

The impact of the prevalence of dental and oral health problems will result in physical, social and mental consequences. Where dental and oral health problems will interfere with self-confidence and self-esteem which leads to a lack of social interaction, isolation or even stigmatization. Severe dental and oral disease that is not treated can also have a negative impact on employment opportunities. Not only that, increasing dental and oral health problems will result in various diseases such as: bacterial infections that enter the blood vessels and attack the heart or blood vessel disease to strokes [6]. Besides that, the impact of tooth decay on children and adolescents is that sufferers are not confident, unable to study, work, or think properly because their teeth hurt. Dental and oral health problems that are not treated and treated will result in the function of the teeth as chewing being disrupted, so that the child does not want to eat and more severe consequences can occur due to

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malnutrition, low body weight, the spread of toxins or bacteria through the bloodstream, respiratory tract, digestive tract which can cause infection. In education too, toothache can affect a child's attendance at school, leading to poorer educational performance [10].

Efforts to overcome dental and oral health problems in Indonesia according to dental and oral health status are by increasing promotive and preventive efforts as early as possible to obtain optimal health status as one of the elements of general welfare and national goals. Through government programs namely UKGM (Community Dental Health Promotion) which is dental and oral health counseling to the community and UKGS (School Dental Health Promotion) is a form of activity to see the condition of dental and oral health in children, especially pre-school children because at preschool age they are still not able to maintain oral hygiene themselves so that there is still a high rate of dental and oral health problems in preschool children [11].

From a preliminary survey conducted by the author at the Bertha Inpatient Primary Clinic in 2023 on March 30, 2023, there were 10 out of 16 pre-school aged 3-4 years during March 2023 experiencing dental and oral health problems. From the data obtained and the incidence of dental and oral health problems which is still high and the efforts that have been programmed by the government have not been able to minimize dental and oral health problems in pre-school children, the authors want to examine the description of the knowledge and attitudes of mothers regarding dental and oral health in pre-school children 3-4 years at the Bertha Inpatient Primary Clinic in 2023.

2. METHOD

The research design in this study used a survey research design through interviews and distributing questionnaires, where this study used descriptive research which aimed to describe the level of knowledge and attitudes of mothers about dental and oral health in pre-school children 3-4 years at the Bertha Inpatient Primary Clinic in 2023. The sample in this study were 30 respondents (mothers) who had pre-school children 3-4 years. The sampling technique in this study used the accidental sampling method [12], namely all mothers with pre-school aged 3-4 years who came to use health facilities at the Bertha Inpatient Clinic in May 2023.

<table>
<thead>
<tr>
<th>No.</th>
<th>Variable</th>
<th>Definition</th>
<th>Indicator</th>
<th>Measuring instrument</th>
<th>Scale</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Mother’s knowledge about dental and oral health</td>
<td>Knowledge is the result of the mother's knowing about dental and oral health</td>
<td>Assess the mother’s knowledge regarding the definition, prevention, and impact of dental and oral health problems</td>
<td>Questionnaire</td>
<td>Ordinal</td>
<td>Good: 76% - 100%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Enough: 56% - 75%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Not enough: ≤ 56%</td>
</tr>
<tr>
<td>2.</td>
<td>Mother’s attitude towards oral health</td>
<td>Attitude is the result of the mother’s evaluation or assessment of matters related to dental and oral health based on her knowledge</td>
<td>Assess the mother’s reactions and responses about dental and oral health</td>
<td>Questionnaire with a statement</td>
<td>Likert</td>
<td>Positive: &gt;50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Negative: ≤ 50%</td>
</tr>
</tbody>
</table>

The instruments used in this study were knowledge questionnaires and attitude questionnaires. The variables which consisted of the mother’s knowledge and attitudes about dental and oral health.
This study aims to describe the knowledge and attitudes of mothers about dental and oral health in preschool children. This study uses primary data and secondary data. Primary data is data directly obtained from the clinic and respondents while secondary data is data obtained from documents, books, and existing evidence.

3. RESULTS AND DISCUSSION

This section will present the results of research conducted in May 2023. The number of respondents was 30 respondents (mothers) who had preschool children aged 3-4 years who used the Bertha Pratama Inpatient Primary Clinic facilities. In this chapter, we obtain data on the frequency of respondents based on knowledge and attitudes which will be presented in the form of tables and narratives.

Table 2. Frequency Distribution of Descriptions of Mother's Knowledge About Dental and Oral Health in Preschool Children 3-4 years old

<table>
<thead>
<tr>
<th>No</th>
<th>Respondents Knowledge About Dental and Oral Health</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Good</td>
<td>14</td>
<td>46.7%</td>
</tr>
<tr>
<td>2</td>
<td>Enough</td>
<td>13</td>
<td>43.3%</td>
</tr>
<tr>
<td>3</td>
<td>Not enough</td>
<td>3</td>
<td>10.0%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>30</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Based on the data in Table 2. above, it can be seen that Mother's Knowledge of Dental and Oral Health in Preschool Children 3-4 years at the Bertha Inpatient Primary Clinic in 2023 found that most respondents had good knowledge of 14 people (46.7%), quite a number 13 people (43.3%) and less than 3 people (10.0%).

Table 3. Frequency Distribution of Mother's Attitudes Regarding Dental and Oral Health in Preschool Children 3-4 years old

<table>
<thead>
<tr>
<th>No</th>
<th>Attitude of Respondents About Dental and Oral Health</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Positive</td>
<td>27</td>
<td>90.0%</td>
</tr>
<tr>
<td>2</td>
<td>Negative</td>
<td>3</td>
<td>10.0%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>30</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Based on the data in Table 3. above it can be seen that the Attitudes of Mothers Regarding Dental and Oral Health in Preschool Children 3-4 years at the Bertha Inpatient Primary Clinic in 2023 it was found that the majority of respondents had a positive attitude of 27 people (90.0%) and a minority of respondents who were negative as many as 3 people (10.0%).

Discussion

The mouth is an open cavity where food and water enter, as well as the initial part of the digestive system. Inside the mouth are teeth, tongue and saliva. Teeth are hard and small white bones that grow arranged rooted in the gums. The teeth are arranged in two enclosures, the upper and lower jaw which are surrounded by the cheeks and tongue. Each tooth consists of a crown and a root which are joined by a slightly thinner area called the neck of the tooth. Teeth function to crush food so that it is easy to swallow. The tongue also functions to help flip through food and help swallow food[13].

The impact of tooth decay on children and adolescents is that sufferers are not confident, unable to study, work or think properly because their teeth hurt. In addition, dental and oral health problems that are not treated and treated will result in the function of the teeth as chewing being disrupted, so that children do not want to eat and more severe consequences can occur due to malnutrition, low body weight, the spread of toxins or bacteria through the bloodstream, respiratory tract, the digestive tract which can cause infection. In education too, toothache can affect a child's attendance at school, leading to poorer educational performance [7]. Every child has two phases of teeth in his life, namely the baby teeth phase or what is often called milk teeth and the permanent teeth phase. In the primary

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dentition phase, a child only has three types of teeth namely incisors, canines and molars. While the permanent teeth phase, a child has four types of teeth namely incisors, canines, premolars and molars. Therefore, dental and oral hygiene is very important to treat early on. Children from an early age can be taught the discipline to clean their teeth using a toothbrush and toothpaste independently. In this case the role of parents in introducing proper tooth brushing techniques to pre-school children is very useful.

Mother's knowledge is the basis for the formation of children's positive behavior to maintain dental and oral health of pre-school children where attention is given to good and correct care. Parents, especially mothers need to know, teach and train children from an early age to take care of their own teeth because at this pre-school age mothers must be able to follow the intellectual development of children so that children can easily understand and learn[14]. Attitude is a tendency to do something in a certain way, method, pattern and technique towards the world around it, either in the form of certain individuals or objects. Attitudes have disaggregated directions in two directions, namely whether to agree or not, whether to support or not, whether to side with or not towards an object. If you agree, it means that the person has a positive attitude and vice versa[15].

A. Description of Mother's Knowledge About Dental and Oral Health in Preschool Children 3-4 years at the Bertha Inpatient Primary Clinic in 2023.

Based on the results of research on maternal knowledge about dental and oral health in preschool children 3-4 years at the Pratama Bertha clinic in 2023. Obtained from 30 respondents it was found that most respondents had good knowledge as many as 14 people (46.7%), only 13 people (43.3%) and less than 3 people (10.0%).

Knowledge is the result of "knowing" and this happens after people perceive a particular object. A person's knowledge is not absolutely influenced by education because knowledge can also be obtained from previous experience, but the level of education determines whether or not someone easily absorbs and understands the information conveyed to him and then receives and understands it. Mother's knowledge is the basis for the formation of positive behavior in pre-school children where good and correct dental care from an early age can prevent tooth decay [15]. Knowledge of the majority of respondents who have good knowledge indicates that mothers who have good knowledge will tend to have children with good dental and oral conditions. This suggests that the dental and oral health status of children is greatly influenced by the mother's knowledge. With a good level of mother's knowledge about dental and oral health in pre-school children, it is hoped that it can be maintained and applied to children from an early age about the importance of caring for dental and oral health and applying the correct method of brushing teeth in pre-school children so that they can help the growth and development of healthy children. better, so that children become healthy and active.

This research is in line with the results of research conducted by Desi Sundari Utami, Dewi Anggraeni, Ero Haryanto entitled "Knowledge and Attitudes of Mothers About Dental and Oral Health in Kindergarten Children Al-Qolam Ciumbuleuit". In this study, the results obtained from 60 respondents were 35 respondents (58.4%) with good knowledge, 22 respondents (36.6%) with sufficient knowledge and 3 respondents (5%) with low knowledge. According to the assumptions of Desi Sundari Utami, Dewi Anggraeni and Ero Haryanto, the factors that influence the knowledge of respondents are education, environment, experience, age, socio-culture and sources of information [16].

This research is in line with the results of research conducted by Wiwi Filman Ningsih, et al. entitled "Knowledge and Attitudes of Mothers About Dental and Oral Health with Dental Caries Incidence in Pre-School Children in 2021". In this study, the results obtained from 52 respondents (mothers) the level of maternal knowledge about dental health was in the good category, namely 32 mothers (62%) and mother's knowledge about dental health was in the poor category, namely 20 mothers (38%). According to the assumption of Wiwi Filman Ningsih, et al., the knowledge of parents, especially a mother, on how to maintain healthy teeth and mouth is very important in underlying the formation of behaviors that support children's dental and oral hygiene, so that children's dental and oral health is good[17]. This suggests that the dental and oral health status of
children is greatly influenced by the mother's knowledge. With a good level of mother's knowledge about dental and oral health in pre-school children, it is hoped that it can be maintained and applied to children from an early age.

B. Description of Mother's Attitudes About Dental and Oral Health in Preschool Children 3-4 years at Bertha Inpatient Primary Clinic in 2023.

Based on the results of research on Mother's Attitudes regarding dental and oral health in preschool children 3-4 years at Bertha's primary care clinic, it was found that from 30 respondents it was found that the majority of respondents had a positive attitude of 27 people (90.0%) and a minority of respondents were negative as many as 3 people (10.0%).

Attitudes can be formed based on the cognitive component, namely the belief that is owned, in this case the mother has a positive nature about the importance of caring for oral health but still has the belief that children's teeth can still grow back. Based on the affective component, namely emotional feelings, which means the mother has a positive attitude because of the feelings of a mother to maintain healthy teeth and mouth in her child. And the conative component, which means the tendency to behave in a certain way according to the attitude possessed by a person. This research is in line with the results of research conducted by Wiwi Filman Ningsih, et al entitled "Knowledge and Attitudes of Mothers About Dental and Oral Health with Dental Caries Incidence in Pre-School Children in 2021". In this study, the results showed that a positive attitude was 33.3% compared to 10.8% of mothers who had a negative attitude.

According to the assumptions of Wiwi and et al, attitude is an individual's readiness to act according to his feelings and thoughts based on the values he believes in. So that attitudes can be learned, not brought from birth, not settled so they can change. In addition, based on the results of the study, there is a gap with the reality that occurs where mothers already have good knowledge and attitudes, but dental and oral health problems in pre-school children cannot be overcome and the number of tooth decay is still high. So according to the theory, in addition to dental and oral care, dental and oral health problems are also caused by the habit of children not cleaning their teeth after eating sweet and sticky foods [17]. Where it is in accordance with Sariningsih's theory in the book Edina Hartami” the importance of modifying food habits that are associated with a high risk of caries in children such as avoiding sticky and sweet foods and eating more fibrous and watery vegetables and fruits [13].

This research is not in line with the results of research conducted by Desi Sundari Utami, Dewi Anggraeni, Ero Haryanto entitled "Knowledge and Attitudes of Mothers About Dental and Oral Health in Kindergarten Children Al-Qolam Ciumbuleuit". In this study, the results showed that mothers were unfavorable (not good) by 32 people (53%) and Favorable (good) by 28 people (47%). According to the assumptions of Desi Sundari Utami, et al, a negative attitude occurs because the mother has not been able to apply it properly and occurs because of several obstacles in the form of the child's unwillingness to not understand the importance of dental and oral health so that this knowledge is relatively not applied to children [16]. According to the assumptions of the researchers, attitude is the readiness of individuals to act according to their feelings and thoughts based on the values they believe in. So that attitudes can be learned, not brought from birth, not settled so they can change. Attitude is a reaction or response of someone who is still closed to a stimulus or object.

4. CONCLUSION

From the results of research conducted on mothers who have knowledge and attitudes about dental and oral health in pre-school age children 3-4 years at the Pratama Bertha clinic and the data processing that has been done, it can be concluded that mothers at the Primary Bertha clinic have the majority of good knowledge of 14 people (46.7%) and a positive attitude of 27 people (90.0%). In this case, the higher the knowledge possessed by the mother, the higher the positive attitude of the mother. So that the mother's knowledge and attitudes about dental and oral health are very influential in the process of forming children's behavior. Suggestions to mothers who are less knowledgeable can further increase knowledge about the importance of dental and oral health in pre-school children. And suggestions for further research with the addition of other factor variables such as the characteristics
and behavior of the mother that affect dental and oral health.

REFERENCES


