

## MOM'S KNOWLEDGE ABOUT PREVENTING DENTAL CARIES IN PRESCHOOL CHILDREN IN NUSANTAR TK, SIMALUNGUN REGENCY IN 2021

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### ABSTRACT

Mother who is the closest person to the child in health care has a significant influence on the attitude and behavior of the child. Kindergarten age children generally do not know and have not been able to maintain the health of their oral cavity, so it is the parents' responsibility to educate them properly. The purpose of this study was to determine the mother's knowledge about the prevention of dental caries in preschool children at Nusantara Kindergarten in 2021. This research design uses a descriptive survey with the sampling technique of a total sampling of 35 respondents in Tk Nusantara Tanah Jawa. The instrument used in data collection is a questionnaire. Analysis of the data shows the results of the description of the knowledge of mothers in Tk Nusantara Tanah Jawa obtained data that the majority of respondents have good knowledge as many as 33 people (91.7%), The researcher recommends that further researchers should conduct similar researchers, it is hoped that they will examine the relationship between knowledge level and dental health maintenance behavior in elementary school children. For further researchers, it is also recommended to choose a total sampling technique according to the conditions and characteristics of the population.

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### 1. INTRODUCTION

Mothers who are the closest people to children in health care have a significant influence on children's attitudes and behavior. Kindergarten age children generally do not know and have not been able to maintain the health of their oral cavity, so parents are responsible for educating them correctly (Rompis et al., 2016). In Ulfah & Utami's (2020) research, parents' knowledge about health behavior can improve their ability to supervise their children in maintaining oral and dental hygiene. Lack of parental knowledge about diet on the development of dental caries, increases the provision of sweet foods to their children, so that children are more often exposed to risk factors for dental caries. According to research by Rompis et al (2016), generally children who have just entered school age have a high caries risk, because at this school age children usually like to snack on food and drinks as they wish. Caries disease in children is a lot and often occurs but less attention from parents with the assumption that children's teeth will be replaced by permanent teeth. Many cases of caries today are due to the lack of knowledge of parents about choosing the right type of food and dental care for their children, especially school-age children. Parents, especially mothers, play an important role in changing the habits of parents who are always seen, assessed, and imitated by their children, which then consciously or unconsciously will be absorbed and become a habit for their children. In the study of Savira & Suharsono (2013), according to the Basic Health Research of North Sumatra Province, it was reported that the DMF-T index of North Sumatra Province, the percentage of the population with dental caries was 16.7%.

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After conducting dental and oral examinations on elementary school students through UKGS in all regencies in North Sumatra Province in 2010, out of 1,420,129 students, 375,180 students or 26.42% had dental caries, 42,617 people had dental caries. , and received treatment as many as 22,560 people or 53.17%. The number of elementary schools that have done mass toothbrushing is 1490 elementary schools or 17.19% of the total number of 8,896 elementary schools. The results of the initial survey conducted by researchers showed that in Nusantara Kindergarten there were 5 students who experienced dental caries and children who like to eat sweet foods such as candy, chocolate, and sweet drinks, then there were 10 mothers who had not been able to know how to prevent dental caries. With the above background, the authors are very interested in conducting a research entitled Differences in Mother's Knowledge About Prevention of Dental Caries in Preschool Children Before and After Education in Tk Nusantara Simalungun Regency in 2021.

## 2. METHOD

The research design used is descriptive research method. This research was conducted at Nusantara Tanah Jawa Kindergarten in 2021. This research will be carried out in March-April 2021. The population in this study using a sampling technique that is Total sampling is The total number of students in Tk Nusantara Tanah Jawa is 36 people. Researchers collected research data after getting permission from STIKes Santa Elisabeth Medan. And got a letter of permission from the principal of the Nusantara Tanah Jawa Kindergarten, Simalungun Regency. The type of data collection used in this study is primary data. Primary data in this study was obtained by giving questionnaires to the mothers of Tk Nusantara Tanah Jawa students, Simalungun Regency. The research was conducted using an instrument in the form of a questionnaire.

## 3. RESULTS AND DISCUSSION

This chapter describes the mother's knowledge about the prevention of dental caries in preschool children at Tk Nusantara Tanah Jawa, Simalungun Regency. Includes: Mother's Age, Mother's Education, Child's Age.

Table 1. Frequency Distribution of Demographic Data Based on Mother's Age, Mother's Education, Child's Age for Kindergarten Students in Tanah Jawa, Simalungun Regency in 2021 (n=36)

| respondent characteristics | (f)       | (%)        |
|----------------------------|-----------|------------|
| <b>Mother's Age</b>        |           |            |
| 25-30 Years                | 12        | 33,4%      |
| 31-40 Years                | 21        | 58,6%      |
| 41-50 Years                | 3         | 8,3%       |
| <b>Total</b>               | <b>36</b> | <b>100</b> |
| <b>Mother's education</b>  |           |            |
| SMA                        | 31        | 86,1%      |
| DIII                       | 4         | 11,1%      |
| S1                         | 1         | 2,8%       |
| <b>Total</b>               | <b>36</b> | <b>100</b> |
| <b>child's age</b>         |           |            |
| 5 Years                    | 4         | 11,1%      |
| 6 Years                    | 20        | 55,6%      |
| 7 Years                    | 12        | 33,3%      |
| <b>Total</b>               | <b>36</b> | <b>100</b> |

Table 1. Distribution of frequency distribution of respondents, data obtained from 36 respondents, the majority of respondents aged 31-40 years were 21 people (58.6%), at the age of 25-30 years as many as 12 people (33.4%), and the minority aged 41-50 years as many as 3 people

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(8.3%). Education data of respondents, the majority of high school as many as 31 people (86.1%) in DIII education as many as 4 people (11.1%), and the minority education S1 as many as 1 person (2.8%). The data on the age of the children are the majority of 6 years old as many as 20 people (55.6%), and the age of 7 years children as many as 12 people (33.3%), and the minority of children aged 5 years being 4 people (11.1%).

Tabel 2. Frequency Distribution of Mother's Knowledge About Prevention of Dental Caries in Preschool Children at Tk Nusantara Tanah Jawa, Simalungun Regency.

| Mother's knowledge about prevention of dental caries | (f) | (%)   |
|--|-----|-------|
| Good   | 17  | 47,2% |
| Enough   | 19  | 52,8% |
| Not enough   | 0   | 0     |
| Total  | 36  | 100   |

Tabel 2. shows that of the 36 respondents, the majority of mothers with sufficient knowledge about prevention of dental caries in children were 19 respondents (52.8%) and the minority of mothers with sufficient knowledge about prevention of dental caries in children were 17 respondents (47.2%) and mothers with knowledge of dental caries in children with poor category got 0 (0%).

## DISCUSSION

Based on research that has been carried out in the field that the mother's knowledge about the prevention of dental caries in preschool children at Tk Nusantara Tanah Jawa, Simalungun Regency, the results of the mother's knowledge about the prevention of dental caries in the majority category are 19 respondents (52.8%). The research that has been done in the field shows that the mother's knowledge is sufficient because the mothers of the students are busy at work so they cannot pay attention to the children's dental hygiene and are unable to pay attention to the children's dental hygiene, while the minority in the good category are 17 respondents (47.2%). Prevention of dental caries as oral care, diet, and fluoridation are met, this is seen from the mother being able to meet the needs of maintaining children's dental health and being able to teach children to brush their teeth using toothpaste properly.

The researcher got the results from the questionnaire questions, it was found that in P1 the results showed that 36 people got a score of 1 where this was seen from how the consumption of fibrous foods (vegetables and fruits) needed to be increased to maintain children's dental health in line with research by Prasasti (2016) in his research said that based on interviews, researchers obtained from Tk Nusantara from 36 mothers who often gave their children fibrous foods such as vegetables and fruits. While in P2, 34 people got a score of 1 point, as many as 2 people got a score of 0 points, this is seen from how children can use adult toothbrushes. Based on interviews, researchers obtained from Tk Nusantara from 34 mothers who did not give their children an adult toothbrush and as many as 2 mothers gave their child an adult toothbrush. While in P3 it was found that 33 people got a score of 1 point, as many as 3 people got a score of 0 points, this is seen from the cause of cavities is food residue that is not cleaned. Based on researcher interviews, it was found that 33 mothers knew the cause of cavities and 3 mothers did not know the cause of cavities. While in P4 it was found that 32 people got a score of 0 points, as many as 4 people got 1 point, this is seen from sticky sweet foods that can't damage teeth. Based on researcher interviews, it was found that 32 mothers did not know that sticky sweet foods could not damage teeth and 4 mothers knew that sticky foods could damage children's teeth. While in P5, 33 people got a score of 1 point, 3 people got 0 points as seen from dental caries the same as dental caries. Based on interviews with researchers, it was found that 33 mothers knew that dental caries could cause cavities and 3 mothers did not know that maternal dental caries could cause cavities. While P6 obtained as many as 32 people get a value of 0 points, as many as 4 people get a value of 1 point seen from brushing teeth can cause cavities. Based on interviews with researchers, it was found that 32 mothers knew that brushing their teeth did not cause cavities and 4 mothers did not know that brushing their teeth could cause cavities. While P7 as many as 36

people got a score of 0 points seen from cleaning their teeth they could only rinse their mouths. Based on interviews with researchers, it was found that 36 mothers did not know that cleaning their teeth could not just be done by gargling. While P8 as many as 35 people got a score of 1 point, as many as 1 person got a value of 0 points seen from before going to bed needing to brush their teeth. Based on interviews with researchers, it was found that 35 mothers often taught and invited their children to brush their teeth before going to bed and 1 mother did not teach and invite their children to brush their teeth before going to bed. At P9 as many as 35 people got a score of 1 point, as many as 1 person got a score of 0 points seen from rubbing must use toothpaste that contains fluoride in line with, Mansjoer's research in his research said fluoridation was done by allowing dentists to give dental cells to the teeth, adding fluoride to the teeth. supply of drinking water at home, use of toothpaste containing fluoride. Based on interviews, researchers found 35 mothers used mouthwash containing fluoride and used toothpaste containing fluoride and as many as 1 mother did not use mouthwash containing fluoride. In P10 as many as 20 people get a score of 0 points, as many as 16 people get a value of 1 point, this is seen from a good toothbrush that has an attractive color and shape. Based on interviews with researchers, it was found that 20 mothers said that a toothbrush with an attractive shape had no effect on children and 16 mothers said that a toothbrush with an attractive shape could increase children's enthusiasm to brush their teeth. While the question P11 as many as 35 people get a value of 1 point, as many as 1 person get a value of 0 points seen from brushing the teeth correctly is brushing the parts (front, back, between the teeth). Based on interviews with researchers, it was found that 35 mothers taught their children to brush their teeth from the front (front, back, between the teeth) and 1 mother did not know that brushing teeth started from the front (front, back, between the teeth). And in P12 as many as 12 people get a value of 0 points, as many as 24 people get a value of 1 point seen from using the correct toothpaste as long as the toothbrush. Based on researcher interviews, it was found that 12 mothers did not know how to use the correct toothpaste and 24 mothers knew how to give the correct toothpaste.

Mother's knowledge about the prevention of dental caries has several indicators, namely oral care, diet, fluoridation. From the results of the study, there were 19 respondents (52.8%) who had sufficient knowledge of the mother as oral care and 17 respondents (47.2%). Researchers got results from research conducted in the field that mothers' knowledge about prevention of dental caries as oral care still does not pay attention to children's dental hygiene and mothers also need to improve how to maintain dental hygiene in kindergarten age children because the mother's role is very important and has an effect on children. The results of the research above are supported by (Suratri, et al 2016) knowledge of the mother on the health or care of children's teeth and mouth is quite good but their behavior is not in accordance with their knowledge and attitudes. Knowledge is a very important domain for the formation of action. Knowledge is needed as a physical impetus in growing self-confidence as well as by encouraging everyone's behavior, so it can be said that knowledge is a stimulus to one's actions (Yuliana, 2017).

Mother's knowledge about prevention of dental caries as a diet is good for the majority of 36 respondents (100%) and the minority is quite 0. Researchers assume that the mother's role in mother's knowledge as a diet is high or good in this role the mother pays attention to the mother's food pattern and child's dental hygiene. The results of the research above are supported by Prasasti (2016) which states that vegetables and fruits reduce a child's risk of tooth decay. So that the role of parents in familiarizing children to consume vegetables and fruits needs to be increased. Avoid the habit of eating foods that damage teeth (candy, chocolate, etc).

The results obtained from the mother's knowledge about the prevention of dental caries as a good majority of fluoridation as many as 19 respondents (52.8%) and the minority in the sufficient category as many as 17 respondents (47.2%). The researcher assumes that the mother's knowledge about preventing dental caries is low or sufficient In this knowledge as fluoridation, mothers need to teach children to brush their teeth using toothpaste that contains fluoridation. The results of this study are supported by according to Mansjoer, fluoridation is done by allowing dentists to give dental cells to the teeth, adding fluoride to the drinking water supply at home, using toothpaste that contains fluoride.

According to the research data, the findings of the knowledge of the respondents' knowledge of the mothers of the Nusantara Tanah Jawa Kindergarten students which in the majority are good in the view of the researchers, this is due to the team's guidance factor that directs respondents to train children to brush their teeth and consume fibrous foods such as fruits and teach them how to brush. Correct teeth. This makes the respondent's knowledge good. Therefore, it can be concluded that showing proper brushing, avoiding foods that can damage teeth (chocolate, candy, and sticky foods) is one way to reduce the risk of dental caries. Dental caries is a disease of the hard tissues of the teeth due to bacterial activity resulting in (softening) of the hard tissues of the teeth followed by the formation of cavities (cavities). Dental caries is a multifactorial disease caused by bacteria (Prasasti, 2016).

## 5. CONCLUSION

From the results of the frequency distribution of respondents, it can be concluded that the mother's education most influences dental caries in children, where the results show that the majority of mothers' education is high school as many as 31 people (86.1%) in DIII education as many as 4 people (11.1%), and minorities S1 education is 1 person (2.8%). Mother's knowledge about prevention of caries in children can be concluded that of the 36 respondents the majority of mothers with sufficient knowledge of prevention of dental caries in children are 19 respondents (52.8%) and a minority of mothers with sufficient knowledge of prevention of dental caries in children are 17 respondents (47.2%) and mothers with knowledge of dental caries in children with less category got 0 (0%).

## REFERENCES

- [1] (Wang & Wang, 2018). Hubungan Tingkat Pegetahuan Kesehatan Gigi Dan Mulut Dengan Perilaku Perawatan Gigi Dan Mulut Pada Anak Usia Sekolah 7-9 Tahun Di Sd Islam Al Jaticempaka.
- [2] Rompis, C., Pangemanan, D., & Gunawan, P. (2016). Hubungan tingkat pengetahuan ibu tentang kesehatan gigi anak dengan tingkat keparahan karies anak TK di Kota Tahuna. E-GIGI, 4(1).<https://doi.org/10.35790/eg.4.1.2016.11483>
- [3] Fithriyah, R. El, Tingkat, H., & Ibu, P. (2018). Hubungan Tingkat Pengetahuan Ibu Tentang Pencegahan Karies Dengan Kejadian Early Childhood Caries Pada Anak Usia Prasekilah. 1(2), 106–114.
- [4] Herlinawati. (2018). Pengetahuan Tentang Pemeliharaan Kesehatan Gigi Dan Deskripsi Jumlah Karies Gigi Ibu Pekerja Di Kelurahan Tualang Kecamatan Perbaungan Serdang Bedagai. Jurnal Ilmiah PANNMED, 13(2), 121–125.
- [5] Khalid, T., Mahdi, S. S., Khawaja, M., Allana, R., & Amenta, F. (2020). Relationship between socioeconomic inequalities and oral hygiene indicators in private and public schools in Karachi: An observational study. International Journal of Environmental Research and Public Health, 17(23), 1–10. <https://doi.org/10.3390/ijerph17238893>
- [6] Nurman Hidayat, M. T. S. (2018). Gambaran Kejadian Karies Gigi Pada Anak Sekolah Dasar. Journal of Chemical Information and Modeling, 9(9), 1689–1699.
- [7] Rompis, C., Pangemanan, D., & Gunawan, P. (2016). Hubungan tingkat pengetahuan ibu tentang kesehatan gigi anak dengan tingkat keparahan karies anak TK di Kota Tahuna. E-GIGI, 4(1). <https://doi.org/10.35790/eg.4.1.2016.11483>
- [8] Savira, F., & Suharsono, Y. (2013). 濟無No Title No Title. Journal of Chemical Information and Modeling, 01(01), 1689–1699.
- [9] Ulfah, R., & Utami, N. K. (2020). Taman Kanak Kanak Relationships To Knowledge and Behavior of Parents in Maintaining Dental Health With Dental Care in Kindergarten. 7(2), 146–150.

- [10] Yuliana, E. (2017). Analisis Pengetahuan Siswa Tentang Makanan yang Sehat dan Bergizi Terhadap Pemilihan Jajanan di Sekolah. Universitas Nusantara PGRI Kediri, 01, 1–7. <http://www.albayan.ae>
- [11] Fithriyah, R. El, Tingkat, H., & Ibu, P. (2018). Hubungan Tingkat Pengetahuan Ibu Tentang Pencegahan Karies Dengan Kejadian Early Childhood Caries Pada Anak Usia Prasekolah. 1(2), 106–114.
- [12] Sapti, M. (2019). 濟無No Title No Title. Kemampuan Koneksi Matematis (Tinjauan Terhadap Pendekatan Pembelajaran Savi), 53(9), 1689–1699.
- [13] Saputra, R. (2019). 濟無No Title No Title. Journal of Chemical Information and Modeling, 53(9), 1689–1699.
- [14] Yuliana, E. (2017). Analisis Pengetahuan Siswa Tentang Makanan yang Sehat dan Bergizi Terhadap Pemilihan Jajanan di Sekolah. Universitas Nusantara PGRI Kediri, 01, 1–7. <http://www.albayan.ae>