



## ANALYSIS OF PARENTS' SOCIAL ECONOMIC STATUS TOWARDS CARIES STATUS IN CHILDREN

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### **Abstract**

*A concise and factual abstract is required (maximum length 200 words). The abstract should state briefly the purpose of the research, the principal results, and major conclusions. An abstract is often presented separately from the article, so it must be able to stand alone. References should therefore be avoided, but if essential, they must be cited in full, without reference to the reference list. Non-standard or uncommon abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself. Abstract in italics, spacing 1, size 11, Font Book Antiqua also includes keywords. The number of words for the abstract is min. 150-200 words, which contain the problem, objectives, methods, and results. Keywords are a minimum of 3 (three) and a maximum of 5 (five) words that reflect the content of the manuscript. Please avoiding general and plural terms and multiple concepts (avoid, for example, 'and', 'of'). Separate each keyword with a ";" on every word. Be frugal with abbreviations: only abbreviations that are familiar in the field are eligible. These keywords will be used for indexing purposes.*

**Keywords:** *socioeconomic status, child caries status.*

### **A. Introduction**

Dental and oral health is one of the factors that support the healthy paradigm and behavioral factors of a person's individual. Overall body health is much influenced by the health of the teeth and mouth itself. Teeth are vital organs in our body, one of the functions of teeth is as a tool for chewing food, helping to crush food in the mouth, and also helping the digestive organs so that food can be absorbed by the body properly. If you can't maintain good dental health, it will cause bacteria to attack your teeth and cause cavities. (Silvia, 2014).

Dental caries is a serious public health problem, therefore it requires the involvement of all parties to overcome it. Families play a very important role in children's dental caries because they can be the first to know about abnormalities in the child. Children with dental caries need to be treated immediately, so that more severe problems that can interfere with their quality of life can be avoided. Therefore, in this study, parents were involved in obtaining perceptions about their child's dental health and the problems that arise due to tooth decay experienced by their child (Dalia H, 2010).

Dental caries is a significant problem, because it is exacerbated by low socioeconomic levels and malnutrition. Dental caries is more common in children from families with low socioeconomic levels, single mothers/fathers, or parents with low educational levels. Age is a factor that greatly affects the occurrence of dental caries. The problem of dental caries is still a lot of complaints by both children and adults and cannot be allowed to become severe because it will affect the quality of life where they will experience pain, discomfort, disability, acute and chronic infections, eating and sleeping disorders and have a high risk of being hospitalized. hospitals and health centers, which causes high medical costs and reduced learning time at school. (Ministry of Health RI, 2012).

Dental caries is the most common problem in the oral cavity. As many as 60-90% of school children experience caries worldwide<sup>1</sup> The caries prevalence of the Indonesian population who has dental and oral problems has increased from 23.1% to 25.9%<sup>2,3</sup>. The prevalence of dental caries in developed countries has decreased in the last three decades, while in developing countries the prevalence of dental caries continues to increase. A study indicates that caries in primary teeth is increasing in Southeast Asia and in some countries in Africa. Dental caries is the most common dental disease in children that contributes to tooth loss in adulthood. (Moynihan, P et al., 2004).

Children entering school age generally have a high caries risk, because at this age children like to snack randomly such as sweet and sticky foods (Worotijan et al, 2013). Parent's income and education are factors that affect health status, because in meeting the needs of life and to get the desired health care place it is more possible for groups with

income and higher education compared to groups with low income and education, healthy living behavior can be influenced by social one's economy. Several factors that influence socio-economic conditions are education, income, and parents. Higher education has a positive effect on health and promotes healthy behavior. Income has a direct influence on medical care, if income increases then the cost for health care also increases. Parents are the initial foundation to build a better socio-economic life, especially for mothers. Where the active role of mothers in the development of a child is very necessary in providing basic education, attitudes, and basic skills, complying with regulations and instilling good habits, especially in maintaining dental and oral health (Ntangan, 2015).

The low level of health is not only a failure of health services, but is related to inadequate income, education and housing (Kent, 2005). A high level of income will increase efforts to utilize health services and prevent disease. Likewise, low income levels will have an impact on the lack of utilization of health services in terms of health care because of the purchasing power of drugs and transportation costs in visiting health care centers that are better for their children. People with less economic capacity will find it difficult to meet their basic needs, so it will be difficult to provide health services for their families (Notoadmodjo, 2007).

Economic status and education level affect a person's healthy living behavior. Mulder (2011) Income has a direct influence on medical care, if income increases the costs for health care also increase. Nissim (2011) People with low economic status and education level tend to ignore healthy living behavior. Mulder (2011) Children from low-income groups tend to be at risk of severe caries. (M, 2006). Caries was found less in high socioeconomic groups and vice versa. This is associated with a greater interest in healthy living in high socioeconomic groups. Education is one of the factors that affect health status, someone who has a high level of education will have good knowledge and attitudes about health so that it will affect his behavior to live a healthy life. (Sondang. P, 2008).

Based on research conducted by Chusnul Chatimah Harsyal (2018), respondents who experienced dental caries were found to be more likely to have low parental income, namely 81.8% (out of 19 respondents), compared to moderate parental income, which was 42.9% (from 19

respondents). 7 respondents), this shows that there is a relationship between parental income and children's dental caries status and also respondents who experience dental caries are more commonly found at the low level of parental education, namely 89.5% (out of 19 respondents), compared to parents' income. high, namely 28.6% (out of 7 respondents), this shows that there is a relationship between the level of education and the dental caries status of children.

Based on Riskesdas (2018) the percentage of Indonesian population who have dental and oral health problems in 2013 and 2018 increased from 25.9% to 57.6%. The province of Aceh shows the prevalence of the population with dental and oral problems at 55.3%, and the prevalence of tooth decay/cavities in the Indonesian population in 2018 was 45.3%, Aceh Province was 47% And based on the age group 12 according to WHO, it was 39,9%.

In developed countries the prevalence of dental caries continues to decline, while in developing countries such as Indonesia it tends to increase. Based on data from Riskesdas, the prevalence of caries in children aged 1-4 years in Indonesia is 6.9%, while in children aged 5-9 years it is 21.6%. In West Sumatra Province, the population aged 1-4 years who have problems with dental and oral health is 5.2% and at the age of 5-9 years is 21.1%, from this figure it can be seen that with increasing age, dental and dental health problems also increase. mouth, especially caries. In the city of Padang, dental and oral disease is still a disease with the first rank among the ten most diseases. With the high prevalence of caries in Kindergarten (Kindergarten) school children in the city of Padang in 2009 it was 52%. (Riskesdas, 2007).

Based on the results of the recapitulation of the health screening of elementary school students conducted by the Ambacang Kuranji Health Center in March 2017 of 21 elementary schools located in the working area of the Ambacang Kuranji Health Center, it was found that the highest caries incidence rate occurred at SD Negeri 25 Lubuk Lintah at 83.1%. The number of students at SD Negeri 25 Lubuk Lintah is 156 children, and class III students are 36 children whose ages range from 8-10 years. The purpose of this study was to determine the relationship between the level of education, income, knowledge and attitudes of parents on the

permanent first molar caries status of third grade students of SD Negeri 25 Lubuk Lintah, Kuranji District, Padang City.

Many studies show that the prevalence of caries is higher in children who come from low socioeconomic status. This is because children of this status consume a lot of cariogenic foods, have low knowledge of dental and oral health, rarely make visits to the dentist so that their teeth are not treated (Angela A., 2005). This is usually due to various factors such as family isolation, inadequate finances, parental indifference, lack of appreciation for the value of oral health, and even a lack of parental understanding of the importance of oral health. (Pertiwi ASP, et al, 2007).

From the results of this study, the problem is that the lower the socioeconomic status of the family, the higher the caries rate because children often consume cariogenic foods.

## **B. Method**

This research was conducted with a descriptive method with a literature study design. Collecting various literatures and reviewing various research articles related to socioeconomic status on caries status in children.

## **C. Result and Discussion**

Low-income people are many who do not realize that they have problems with their teeth. When they feel pain caused by these dental problems, many do not have the funds to go to get proper treatment at dental clinics. Also many of them think that dental treatment is not necessary. Medical treatment and dental health care for people with low incomes is a need whose priority is still low. Therefore, clinical examination plays a role in balancing the community's need for treatment for dental problems and dental health services and treatment for these disorders (Beal et al, 1996).

Several studies reported that the prevalence of tooth decay in children and adolescents who came from low economic status. High socioeconomic status has a low risk of tooth decay, but low economic status has a higher risk of dental caries, this is because children and

adolescents from this group eat more cariogenic foods and consume less fiber. knowledge of parents and infrequent treatment to the dentist. Wycoff explained that there is a relationship between socioeconomic conditions and the occurrence of tooth decay and tooth loss. Factors that influence this are education and income related to diet, dental care habits and others (Beal et al, 1996).

One in four American children born into poverty suffers from tooth decay twice as much as their affluent peers and that more of their disease goes untreated. The report also states that although a continuous reduction in tooth decay in permanent teeth is obtained, the prevalence of tooth decay in children's teeth may increase in the same low-income population group (Handayani, 2003).

Based on research conducted by Chusnul Chatimah Harsyal (2018), respondents who experienced dental caries were found to be more likely to have low parental income, namely 81.8% (out of 19 respondents), compared to moderate parental income, which was 42.9% (from 19 respondents). 7 respondents), this shows that there is a relationship between parental income and children's dental caries status and also respondents who experience dental caries are more commonly found at the low level of parental education, namely 89.5% (out of 19 respondents), compared to the income of older people. high old is 28.6% (of 7 respondents).

Factors that influence this difference are education, occupation and income related to dental caries, dental care habits and others. The relationship between socioeconomic status is inversely proportional, increasing socioeconomic status is a risk factor for dental caries and is generally measured by indicators such as income, education level, lifestyle and dental health behavior. Caries is more common in low socioeconomic class compared to high socioeconomic class. Actually, this happens not because of the high cost of dental care, but rather because of the great sense of need for dental health (Touger et al, 2003).

Healthy living behavior can be influenced by a person's socioeconomic status. (Mulder BC, et al., 2011) Several factors that affect socio-economic conditions are work, education, income, and the number of family members. Work determines socioeconomic status because from work all needs will be fulfilled. Higher education has positive properties about health and promotes healthy living behavior. (Soekanto S. 2003) Income has a direct influence on medical care, if income increases the cost for health care also increases. (Nissim BD, 2011) Family is the foundation This is the beginning to build a better socio-economic life, where the active role of the family in the development of a child is very necessary in providing basic education, attitudes, and basic skills, complying with regulations and instilling habits. (Diana M., 2010)

Health education can be one way to reduce behavioral factors as the cause of health problems. Health education can increase a person's knowledge about how to maintain health and change behavior that is not beneficial to health into behavior that is beneficial to health. The level of education is very influential on knowledge, attitudes, and healthy living behavior. A person with a higher level of education will have good knowledge and behavior about health which will affect his behavior to live a healthy life. (Retnaningsih Ekowati, 2013) In his theory, Notoatmodjo states that when a person is at a higher level of knowledge, attention will be given to dental health. will be higher, and vice versa, when someone has less knowledge, then attention and dental care are also low. (Dinkes, 2014) Economic status or social status and education level affect a person's healthy living behavior. Income has a direct effect on medical care, if income increases the costs for health care also increase. People with low economic status and education levels tend to ignore healthy living behaviors. Children from low-income groups tend to be at risk of severe caries. Caries was found less in high socioeconomic groups and vice versa. This is associated with a greater interest in healthy living in high socioeconomic groups. (Azwar Azrul, 1983)

According to research by Castilho et al. 2013 as many as 52.8% of parents are included in the low level of education category and respondents who experience dental caries are more commonly found in

respondents who have a low level of parental education, namely 89.5% which can be seen because parents are the first source of dental health information for children, especially mothers. Parents who have a high education will have better information than parents with low education about dental health so that the knowledge of these parents will be the capital for parents to guide their children about dental health at home. Higher education will make a person have better knowledge and insight so that it affects healthy living behavior (Shabani, L.F, et al. 2015). Blum (1974) that someone who has a higher socioeconomic level in terms of education will tend to have better knowledge and know more about dental health problems and have a better health status. (Wibowo, A. 2014)

The results showed that most of the respondents' parents had the latest secondary education level (SMA), which was 45 out of 60 people (75%) while the dental caries condition of the students showed that most of the respondents had low caries number criteria (1,2-2,6 ) as many as 20 out of 60 students (33.3%). The alignment between the number of respondents and their parents with the last high school education and the criteria for a low number of caries is in accordance with the opinion (Christiano and Rama, 2015) which states that the higher the level of education, the easier it is to absorb new information and innovations, including dental health. (Afiati, et al., 2017).

The same opinion was also conveyed by Nuntung, et al (2015), in their 2015 research which stated that the higher a person's formal education level, the better knowledge and attitudes of healthy living behavior, the easier it is to get a job so that the more income one earns. to meet health needs. On the other hand, a lack of education will hinder the development of one's attitude towards newly recognized values. (Dwi Eni Purwati, 2017)

Work determines socioeconomic status because from work all needs will be fulfilled. Higher education has a positive nature about health and promotes healthy living behavior (Soekanto, 2003).



Based on the results of research conducted by Sihite (2012) showed 49% of children experienced dental caries and DMFT an average of 1.01 and based on statistical calculations there was a significant relationship between the type of parental occupation and the prevalence of caries-free children's teeth (Sihite, John H. 2012) According to Kent and Blinkhorn, work indicates a certain social class where research shows a decrease in the incidence of caries, especially in young adults, especially in children from high socioeconomic groups. This suggests that socioeconomic status can also affect health status. (Tampubolon, NS, 2005)

The results of Dwi Eni Purwati's 2017 research show that the majority of respondents have the criteria for a low and moderate number of dental caries with a moderate level of parental work, namely 14 respondents (23.3%). This is supported by the opinion of Sogi and Basgar in the research of Christiono and Rama (2015) which states that the caries status and oral hygiene are better in children with middle and upper-class parental employment status, this is because parents from the upper middle class consider it important to maintain dental health and expect the teeth to function optimally as long as possible in the oral cavity, including their children.

Children in America who come from families with incomes below the Federal Poverty Level (FPL) have a dental caries prevalence twice as high as children from families with higher incomes. Tooth decay due to caries suffered by children from families with low incomes is also more extreme and more severe than children from families with high incomes and one third of children suffering from caries from families with low incomes have untreated caries. (Dye, B.A et al, 2007)

This study shows that most of the respondents' parents have income below the minimum wage, which is 45 people (54.2%). Income will affect a person's lifestyle, because a person or family who has a high income will practice a luxurious lifestyle, for example more consumptive because they are more able to buy everything they need when compared to families with lower economic class. Children from families with middle to upper incomes are more likely to consume foods that contain

cariogenics, because children from these families are more able to buy foods that contain a lot of cariogenics (Lilik, Hidayanti. 2010).

The results of research conducted by Chusnul Chatimah Harsyaf (2018) who experienced dental caries were more commonly found in low-income parents compared to moderate-income parents. There is a relationship between income and caries status of permanent first molars due to the lack of parental income so that it affects the maintenance and oral health services received by children. According to Thabrany, H. 2014 the high cost of health services affects a person to obtain adequate health services.

And further strengthened by research by A'yun et al (2016) in Dwi Eni Purwati 2017 which states that the prevalence of dental caries is higher in children who come from low social status, partly due to low visits to dental health services.

The researcher's assumption states that the low level of parental socioeconomic status can affect dental caries due to the low income of parents and low parental education, thus causing dental and oral health problems. found in low-income parents compared to middle-income parents.

## **E. Conclusion**

Dental and oral health status is largely determined by several factors and which affect tooth decay in children and adolescents who come from low socioeconomic status. High socioeconomic status has a low risk of tooth decay, but low economic status has a higher risk of dental caries and there is a relationship between the socioeconomic status of parents with tooth decay and tooth loss. The factors that influence this are education, occupation and income, therefore the socioeconomic status of parents greatly affects whether or not the dental caries status will occur in children.

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