

Source of Information and Knowledge of Pregnant Women and Toddler Moms Concerning Child's Growth and Dental Development in Poor Community

Thalca Hamid¹, Emy Susanti^{2*}, Satiti Kuntari³, Siti Mas'udah²

¹Department of Orthodontic, Faculty of Dentistry, Universitas Airlangga, Surabaya, 60132, East Java Province, Indonesia

²Department of Sociology, Faculty of Social and Political Sciences, Universitas Airlangga, Surabaya, 60286, East Java Province, Indonesia

³Department of Pediatric Dental Hygiene, Faculty of Dentistry, Universitas Airlangga, Surabaya, 60132, East Java Province, Indonesia

Corresponding author: emy.susanti@fisip.unair.ac.id

Abstract

Mother has a very important role in determining the level of health, including oral health in her children. The objectives of this research are mapping the source of knowledge of pregnant women and toddler moms about dental health and oral cavity of children under five. An action research was conducted using quantitative methods supported with qualitative data with a gender perspective approach. This study was conducted in East Java, Indonesia. The subjects of this study were pregnant women and toddler moms, as well as health workers from puskesmas (public health center) and local community leaders in poor communities in the study area. The result from this study is the development of a model of empowering pregnant women in optimizing the growth and development of children's teeth in poor communities in East Java with a gender perspective. A health program with a gender perspective that focuses on the special needs of women with poverty needs will provide more optimal results, specifically dental and oral health in children while playing the role of women as a major. The results of this study show the knowledge of pregnant women and toddlers about the growth and development of children's teeth that have started since the pregnant woman has not maximized the maximum preparation of the mother to improve the child's tooth development when the pregnant woman is not maximized. Furthermore, it is necessary to increase the socialization of the growth and development of children's teeth during pregnancy and improve children's dental health at 1000 days of birth by increasing concentration and increasing health materials at the meeting of family members or organizations.

Keywords: *Women's empowerment model, health of pregnant women; children's dental health; women's protection; children and family empowerment.*

INTRODUCTION

The mouth is an obvious portal of entry to the body, and oral health reflects and influences general health and well being. Maternal oral health has significant implications for birth outcomes and infant oral health. Pregnancy Risk Assessment Monitoring System (PRAMS) on the purpose of the Millennium Development Goal explains that poor dental health in pregnant women can have an effect on preterm births and low birth weight (Sumidarti, 2011). Maternal periodontal disease, that is, a chronic infection of the gingiva and supporting tooth structures, has been associated with preterm birth, development of preeclampsia, and delivery of a small-for-gestational age infant. Santoso et al (2009) studies show that maternal periodontitis is a significant risk factor for birth in LBW less than in mothers with normal dental health. Some risk factors associated with low birth weight babies

are one of them caused by periodontal disease (Ulfah et al, 2016; Sharma et al, 2007; Louro et al, 2001). Maternal oral flora is transmitted to the newborn infant, and increased cariogenic flora in the mother predisposes the infant to the development of caries. Pregnant women become very vulnerable to dental disease due to neglect of dental and oral health which impacts their prospective babies (Anggraini et al, 2015; George et al, 2010; Alsada et al, 2005). It is intriguing to consider preconception, pregnancy, or intrapartum treatment of oral health conditions as a mechanism to improve women's oral and general health, pregnancy outcomes, and their children's dental health. (Boggess, *et al.* 2006).

Socioeconomic factors, lack of resources to pay for care, barriers to access to care, and lack of public understanding of the importance of oral health and effective self-care practices all represent underlying reasons cited for observed inadequacies in oral health. (Boggess, *et al.* 2006). Study of Susi et al (2012) explains that there is a higher prevalence of caries experienced by children from low socioeconomic families. Previous studies have shown that people who have higher education and high socioeconomic status also have an awareness of maintaining health, including teeth by taking care according to the advice of the dentist, this is clearly different from people with low socioeconomic status who overlook the importance of maintaining dental health (Maulana et al, 2016; Sanders et al, 2004; Musacchio et al, 2007).

Oral health promotion is at least as important as prevention of oral diseases. Nowadays, the main focus may be, "Promotion of optimal oral health is key". Oral health promotion is a precautionary process in which people are learning somehow to improve their oral health conditions through a broad range of activities and practices. Oral health promotion is carried out gradually and continuously with the aim of refreshing and preventing the decline of public knowledge either by institutions or community groups (Astuti, 2013). Efforts for counseling through oral health promotion sometimes have problems due to lack of public awareness so other methods are needed (Hamdalah, 2013; Petersen et al, 2004; Watt et al, 2005). In other words, it refers to the process by which individuals or targets groups are able to gain more control over the determinants of their oral health, and improve their oral health. (Buunk-Werkhove, *et al.* 2017). Some oral health promotions are done by clarifying the presentation of the message to make it look attractive (Katonhe et al, 2016; Vamos et al, 2015; Beiruti et al, 2004).

To be effective, oral health promotion must first seek to educate women and their health care providers about the importance of oral health and must promote an understanding of their ability to prevent and manage both periodontal disease and caries and to thereby limit the personal and intergenerational consequences of both conditions.(Boggess, *et al.* 2006). During this examination of many pregnant women centered on fetal health, while oral health is often ignored (Diana et al, 2010). Previous studies state that during pregnancy, the mother will experience hormonal changes that will affect oral health such as gingivitis and pyogenic granulomas (Muhsinah et al, 2014; Laine, 2002; Gajendra et al, 2004).

Dental caries is the most common chronic disease in children that is five times more common than asthma and seven times more common than hay fever. The highest prevalence of caries is found in Asia and Latin America and is the primary pathologist of dental dating in

children (Sumini et al, 2014). Previous studies have shown that chronic gingivitis occurs slowly over a long period of time and if left unchecked can cause periodontitis (Riyanti, 2008; Chambrone et al, 2011; Foster et al, 2005). The American Academy of Pediatric Dentistry defines the disease of Early Childhood Caries (ECC) as the presence of 1 or more decayed (noncavitated or cavitated lesions), missing (due to caries), or filled tooth surfaces in any primary tooth in a child 71 months of age or younger. In children younger than 3 years of age, any sign of smooth-surface caries is indicative of Severe Early Childhood Caries (S-ECC). Signs that are often found in children affected by caries are having difficulty eating and often crying because it feels painful and difficult to chew food (Mariati, 2015). Previous studies suggest that caries can cause mastication (mastication) which can affect nutritional status (Ratnasari et al, 2014; Murakami et al, 2011; Cote et al, 2004). From ages 3 through 5, 1 or more cavitated, missing (due to caries), or filled smooth surfaces in primary maxillary anterior teeth or a decayed, missing, or filled score of ≥ 4 (age 3), ≥ 5 (age 4), or ≥ 6 (age 5) surfaces constitutes S-ECC2. (Kamath P. S. *et al.* 2017).

The multi-factorial nature of ECC covers but is not limited to commonly used terminologies including “nursing caries”, “baby bottle caries”, and “baby bottle tooth decay”, since inappropriate feeding habits are often associated but are not the sole etiological factors of this condition. Poor eating habits are usually done by children who like cariogenic foods, which are foods that contain lots of carbohydrates, are sticky, and are easily broken down in the mouth (Worotitjan et al, 2013). Previous studies have concluded that consuming sweet foods and drinks between meals can increase the risk of caries (Angela, 2005; Bruno-Ambrosius et al, 2005; Johansson et al, 2010). The Centers for Disease Control and Prevention suggested the term “Early childhood caries” in 1994 at a workshop in an attempt to focus attention on the multiple factors (i.e. socioeconomic, behavioral, and psycho-social) contributing to caries at such early ages, rather than ascribing sole causation to inappropriate feeding methods. (Kamath P. S. *et al.* 2017). The study of Tulangow et al (2013) shows that caries is mostly suffered by children from among people with low socioeconomic status because they consume a lot of cariogenic food, low knowledge, and rarely do dental examinations to the dentist. Previous studies explain that parents with high income levels in addition to being able to meet basic needs, can also provide opportunities for health services to children, which is inversely proportional to parents from among the minimum income earners (Ngantung et al, 2015; Hallet et al, 2003; Oliveira et al, 2008).

Early childhood caries (ECC) remains a major unresolved dental public health problem in developing as well as developed countries, despite the continuous trials for implementation of preventive strategies. Dental caries that occur in developing countries has increased especially in preschool children where the prevalence and morbidity is high (Utami, 2013). The decline in the prevalence of ECC among children in developed countries cannot be denied but it continues to progress at epidemic proportions in low-middle income countries. (Olotosi. *et al.* 2015).

Usually, the mother is the main caregiver during early childhood and plays a pivotal role in her child’s health. Parents are the primary sculptors for behavior; the adoption of consistent childhood behavioral habits occurs at home with the parents, especially the mother.

Furthermore, there are several well-supported pathways through which a mother's oral health status and its determinants directly influence her child's oral health. Indeed, there is a correlation between the mother's attitude toward oral health and dental care and the level of oral health and the degree of dental care utilization by the child. Mothers with low education and knowledge of oral health are behavioral predisposing factors that do not support children's dental health and often assume deciduous teeth are temporary (Afiati et al, 2017). Previous studies have explained that parents (mother) and children are a unity and bond where the mother is a good health team for health supervision including about how to care for teeth (Suratri et al, 2016; Moallemi et al, 2008; Kowash et al, 2000). Some authors have also found that maternal oral health has an influence on the occurrence of early childhood caries. Mothers who have experienced extensive past or current caries may have need for counseling on the prevention of childhood caries. (Andrade MRTC. *et. al.* 2012). A study conducted by A'yun et al (2016) illustrates that maternal behavior in the use of dental health services and maternal behavior in the selection of children's food affect the risk of child caries.

The degree that pregnancy provides a "teachable moment" in self-care and future child-care, prenatal education should universally adopt an oral health component. This educational intervention should prioritize those mothers who have suffered significantly from dental caries so that they can learn to effectively prevent transfer of this disease to their children. (Bogges, *et al.* 2006).

Self care in the health field refers to the activities of individuals, families and communities with the aim of improving health, preventing disease, limiting disease and restoring health. Health care emphasizes efforts to improve health and prevent health problems and does not neglect recovery for the sick (Efendi et al, 2009). This activity comes from the knowledge and skills of the profession and experience. They are carried out by people on their own behalf, either separately or in collaboration with experts / professionals. (Departemen Kesehatan Ingris Raya. 2005).

Newer definitions also include care given by individuals to families or community members. As an example. The British Ministry of Health notes that "self-means is a part of everyday life. This is care carried out by individuals for their own health and well-being, and includes care for their children, family, friends and others in the local environment and community. 3 women are the main implementers of self-care for their families, caring for sick children, elderly and chronic family members, and also in making decisions about nutrition and family hygiene. (Departemen Kesehatan Ingris Raya. 2005).

RESEARCH METHODS

A quantitative descriptive study was conducted in several districts in East Java, namely Temoran Village, Omben District, Sampang Regency; Bandung Rejosari Village, Sukun District, Malang Regency; and Sidotopo Lor Subdistrict, Semampir District, Surabaya City. Primary data collection was conducted through interviews using a questionnaire of 100 mothers who have children under five. In-depth interviews were conducted to 5 mothers and 10 health workers and women's organizations using guidelines for interviews. The collected data (300 questionnaires) were edited to check for incomplete answers. The data were then

processed by giving codes to the answer, coding and tabulating using SPSS techniques. Data collected from in-depth interviews with 30 informants from 3 districts were processed by first making a transcript of all in-depth interviews. Quantitative data were analyzed by making frequency tables and cross tables by calculating percentages. Furthermore, the researchers made analysis and examined patterns, trends, and theoretical analysis. Qualitative data that had been transcribed were analyzed by making data categorization using the 'File Analysis' technique, which was typology of data based on the issues studied. Afterwards, the researchers made 'empirical generalization' therefore theoretical points and concepts were formulated as a result of logical induction from empirical data.

RESULTS AND DISCUSSION

Sources of Knowledge of Pregnant and Toddler Moms about Children's Dental Health and Oral Cavity

This study was conducted in three locations in East Java, namely Sampang Regency, Malang Regency and Surabaya City. The following paragraphs described source of knowledge of pregnant women and toddler moms about dental health and oral cavity of their toddlers based on three research locations. This study examined one poor village in each research location. There are 224 health cadres in Bandung Rejosari Village, Sukun District, Malang Regency, which are divided according to the area of their residence. Most cadres are housewives. Generally, there are 9 cadres in 1 post who work as health assistants for pregnant women and toddler moms.

Toddler moms in Bandung Rejosari still have limited knowledge about dental health. There are still many who have not been able to answer correctly related to knowledge about the growth of children's teeth that begins to form in the womb. There is still a lot of misinformation about the formation of children's teeth among the cadres, as some of them do not know exactly when the children's teeth formed in the womb. In fact, the society in the village often get counseling about nutritional health of pregnant women and children under five compared to counseling on oral health.

Some new cadres have difficulties regarding the tasks and health information needed in assisting pregnant women and toddler moms. New cadres only have the duty to help *posyandu* (integrated service post). However, they cannot perform optimally when accompanying pregnant women because of the lack of health information they have. Therefore, those 224 cadres could not give good and proper assistance to pregnant women and toddler moms in Bandung Rejosari.

Cadres with less than 1 year of service admitted that they have not mastered their role as cadres and do not give full attention to the pregnant women or toddler moms under their care. On the other hand, senior health cadres, who have been assisting pregnant women and toddler moms for decades, have lots of health information and experience so that they can optimally assist pregnant women and toddler moms.

Health cadres in Bandung Rejosari do not provide special socialization for pregnant women and toddler moms to check their teeth to the dental clinic at *puskesmas* (public health

center). In contrast, health center staff only provide guidance for pregnant women and toddler moms who visit the MCH clinic to visit dental clinics.

The cadres revealed that there is still no information or special socialization about dental health obtained by them or toddler moms. In addition, there has never been a special catalog about health or dental care found in public health center. Generally, public health center has more often provided counseling about nutritional health for pregnant women. For the first time, the cadres received special dental health education conducted by the Faculty of Dentistry, Universitas Airlangga. They acknowledged that special socialization activities on dental health are very beneficial for maintaining children's growth and future dental health.

The involvement of health cadres in the socialization of dental and oral health is very important. As health workers, health cadres serve as a community empowerment forum by increasing skills in how to brush teeth properly and detect cavities (Arini et al, 2019). Previous studies mentioned that health cadres are indeed not able to work optimally because they are not yet professional and their knowledge is still lacking (Surjaningrum, 2012; Standing et al, 2008).

Likewise, dental health information is also lacking in the community. Most people do not need to understand health procedures because explanations from the authorities are still lacking and ineffective (Leander, 2015). A study conducted by Tuhuteru et al (2014) in Manado stated that public health services in Manado also rarely conduct oral health promotion so that many periodontal diseases are found.

In Sampang Regency, precisely in Temoran Village, Omben District, the community obtained a source of health information about maternal and child dental health through village midwives and cadres. The cadres in Temoran Village are assigned as assistants to help the community in dealing with health needs such as *posyandu* and counseling held by Temoran Village. One cadre oversees 10 households.

Although Temoran Village is located on the coast of the sea, pregnant women consume vegetables more often than fish. This is due to the knowledge of pregnant women in Temoran Village about the importance of food intake when pregnant is quite lacking. Meanwhile, lecture on the health of pregnant women in Temoran Village was conducted by public health center. Pregnant women in Temoran Village receive special lectures on dental health once a year.

The village's first lady and head of *posyandu* stated that they provide support for the community to improve their health, especially for pregnant women. By holding a *posyandu* program, pregnant women and toddler moms in Temoran Village are recorded and given counseling when *posyandu* is held once a month on the second week.

Regarding the enthusiasm of the community to seek treatment at the public health center, the village's first lady could not emphasize that the entire community in Temoran Village would visit the health center when they were sick. She also admitted that she often went to a clinic because of busyness. One of the village officials also claimed that he had never been treated at the health center because he considered the facility could not provide good service, and that there was a dentist's practice located not far from where he lived.

Mothers in Madura need to have enough knowledge about food and nutritional intake. Malnutrition can cause anemia during pregnancy or in toddler moms, as they can not make food with balanced nutritional rules (Purbadewi & Ulvie, 2013). Previous studies stated that a person's level of knowledge influences the way he sorts food and therefore a mother needs to have good knowledge to meet nutritional needs of children and families (Mawaddah et al, 2008; Kim, 2009; Daba et al, 2013).

The reality of the community's lack of interest in Temoran Village visiting health center and preferring clinic is a picture of where the community prefers service from clinic. Usually, the middle to lower classes prefer low-cost services including health services (Hermawan et al, 2011). However, this does not happen to the Temoran Village community. Previous studies have shown that people's interest in health services is influenced by how health services provide communication and services so that they can influence community understanding (Amalia, 2013; Kristiansen et al, 2006).

In Surabaya, the attention of the community of Sidotopo Subdistrict, Semampir District, on dental health of pregnant women and toddler moms is not good enough. The existence of health cadres does not necessarily focus on dental health issues. Health cadres in Sidotopo only focus on chronic health problems.

Cadres in Sidotopo provide services in accordance with the directions from the Sidotopo Public Health Center. Sunaiyah admitted that the challenge of becoming a cadre is the lack of parents' attention to toddler's health. This is caused by the background of residence in big cities that demand high needs so that many toddler moms also work to help their husbands, so that children lack attention, child nutrition is ignored. Some cases in this Sidotopo include digestive and nutritional problems.

In addition, most of those who come for counselings are grandmothers of toddlers because the moms are working. Most people in Sidotopo work as construction workers, and some work in the port as sailors or porters for ships because Sidotopo is in the port area. Meanwhile, the women work as factory workers or traders. This has an effect when posyandu activities, as toddlers come with their grandmothers. This condition results in the lack of health attention in toddlers and children in Sidotopo Village, because grandmothers of toddlers feel they only help when their parents work.

Health information obtained by pregnant women and toddler moms in Sidotopo does not only come from health cadres and health center staff but also from the internet. Some toddler moms claimed to look for health information and pregnancy information on the internet.

Working mother is a challenge for fulfilling health care for children. However, a study conducted by Ali (2003) mentioned that there are no differences between working mothers and non-working mothers in terms of childcare such as immunization. Working mothers can still provide health services for their children. Rejeki's study (2008) stated that working mothers do in part have an 'inconvenience' impact in providing health care, and they are also uneasy and cannot bear their children.

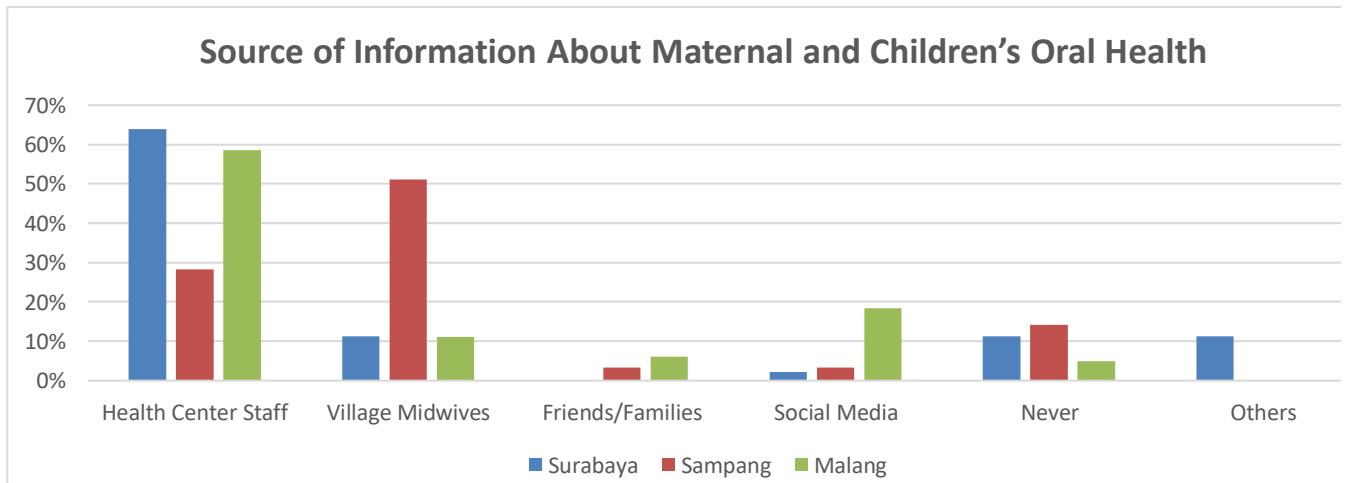


Figure. 1. Source of Information about Maternal and Children's Oral Health
 Source: Primary Data

Table 1 showed that Surabaya respondents mostly answered health center staff when asked about the source of maternal and children's oral health information (64%). Meanwhile, 10 respondents answered village midwife, never, and the other columns, and they were only 2 respondents who chose social media. Of the 92 respondents interviewed in Sampang, as many as 47 people chose village midwives. While, the least choice was friends/neighbors and social media, each of which was only chosen by 3 respondents. Like Surabaya respondents, Malang respondents mostly chose health center staff (58.5%). This finding showed that in Surabaya and Malang, health center staff had most role in providing information on maternal and children's oral health. While in Sampang, the community obtained more information about the maternal and children's oral health through village midwives.

Information about oral and dental health is indeed widely obtained from dental health medical personnel. In Hutabarat's study (2009), dental and oral health information obtained by school children in Medan was mostly from dentists and dental nurses. Previous studies showed that sources of information on dental health are difficult to obtain apart from dentists, such as the lack of information posters at health care sites as well as the community's lack of attention (Rundungan et al, 2015; Mwangosi et al, 2002; Page et al, 2005).

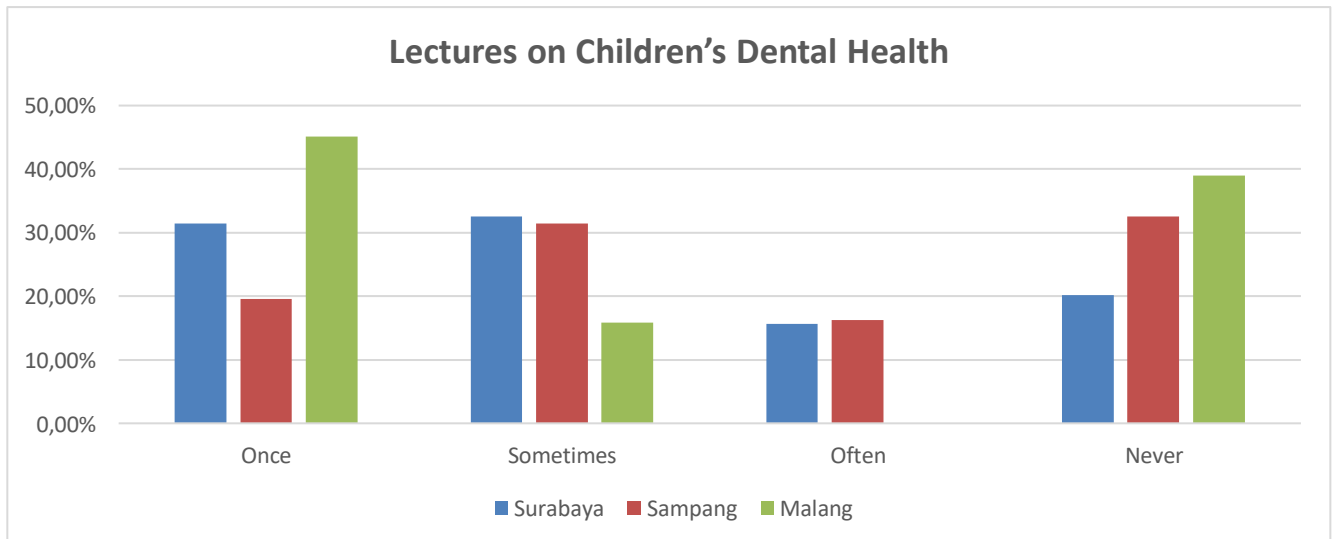


Figure. 2. Lectures on Children's Dental Health
 Source: Primary Data

Table 2 showed that some respondents have received lectures or socialization about children's dental health. For Surabaya respondents, 28 respondents answered they once received socialization, 29 answered sometimes, and 14 answered often. Furthermore, for Sampang respondents, 18 respondents answered they once received socialization, 29 answered sometimes, and 15 answered often. While in Malang, 37 informants answered once, and 13 answered sometimes. However, many other respondents claimed they had never given a lecture or counseling on children's dental health. Therefore, dental health counseling still needs to be improved.

Dental health education is not like counseling on the health of other organs. Dental health does not get enough portion to be socialized to the public. Some places such as rural areas and schools are not equipped with dental and oral health units, so students have limited information about the importance of dental health (Bany et al, 2014). Anitasari et al's study (2005) emphasized that there is no indicator whether dental and oral health counseling activities, although running smoothly, are successfully implemented by the community.

Parent's Knowledge of Children's Dental Health

Table 3 showed there were 35 Malang respondents (42.7%) know about children's teeth growth starting from the womb. Meanwhile, 31.7% respondents are less knowing the information, and 25.6% respondents do not know. This finding indicated that the mother's knowledge related to the growth of children's teeth is quite good, although there are still respondents who do not understand about the child's tooth growth time. On the other hand, there were 64 Surabaya respondents (71.9%) do not know about children's teeth growth starting from the womb. There were 34 Sampang respondents (37%) know about children's teeth growth starting from the womb. Meanwhile, 9.8% respondents are less knowing the information, and 53.3% respondents do not know. This indicates that the mother's knowledge

related to children's tooth growth is still lacking, although there are some respondents who know and can answer the questions correctly.

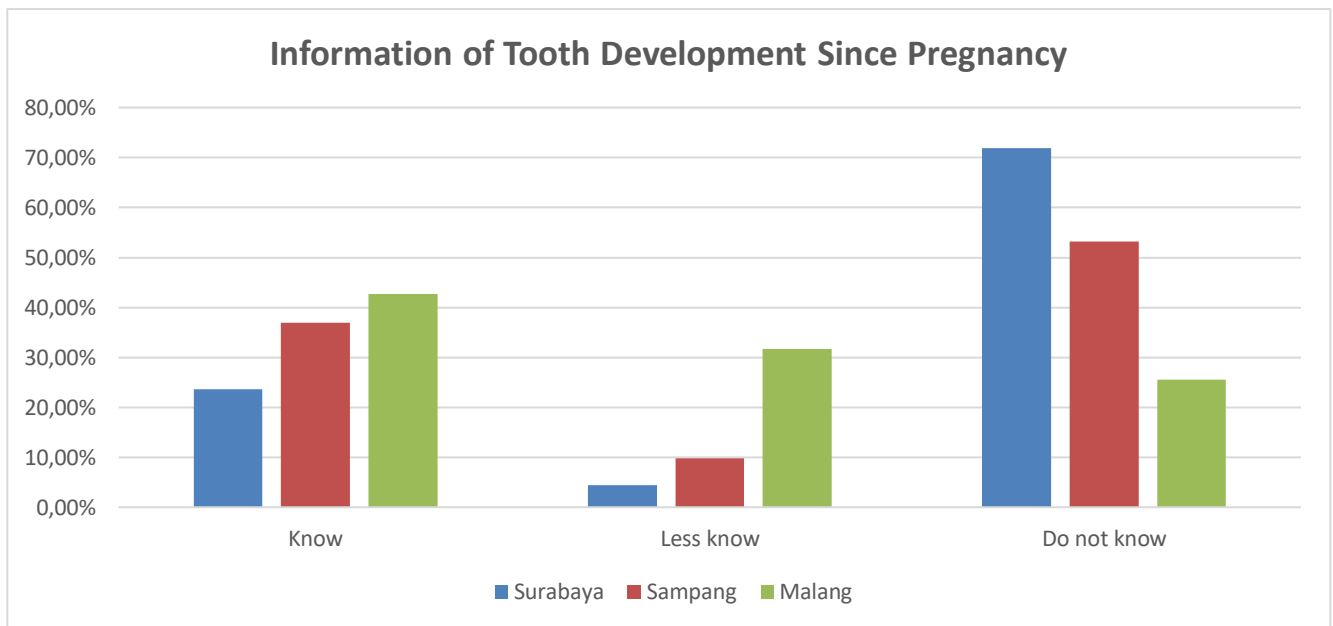


Figure. 3. Information of Tooth Development since Pregnancy
Source: Primary Data

Parents neglect the importance of knowledge and care for children's dental health because they assume that the teeth grown in childhood are baby teeth (not permanent). Many parents assume that deciduous teeth are only temporary, so that the damage is not a serious problem (Eddy et al, 2015). Previous studies showed that maternal knowledge regarding tooth growth and care is influenced by socioeconomic status, experience, mass media information, and environment (Rompis et al, 2016; Al-Attas, 2007; Hashim, 2012).

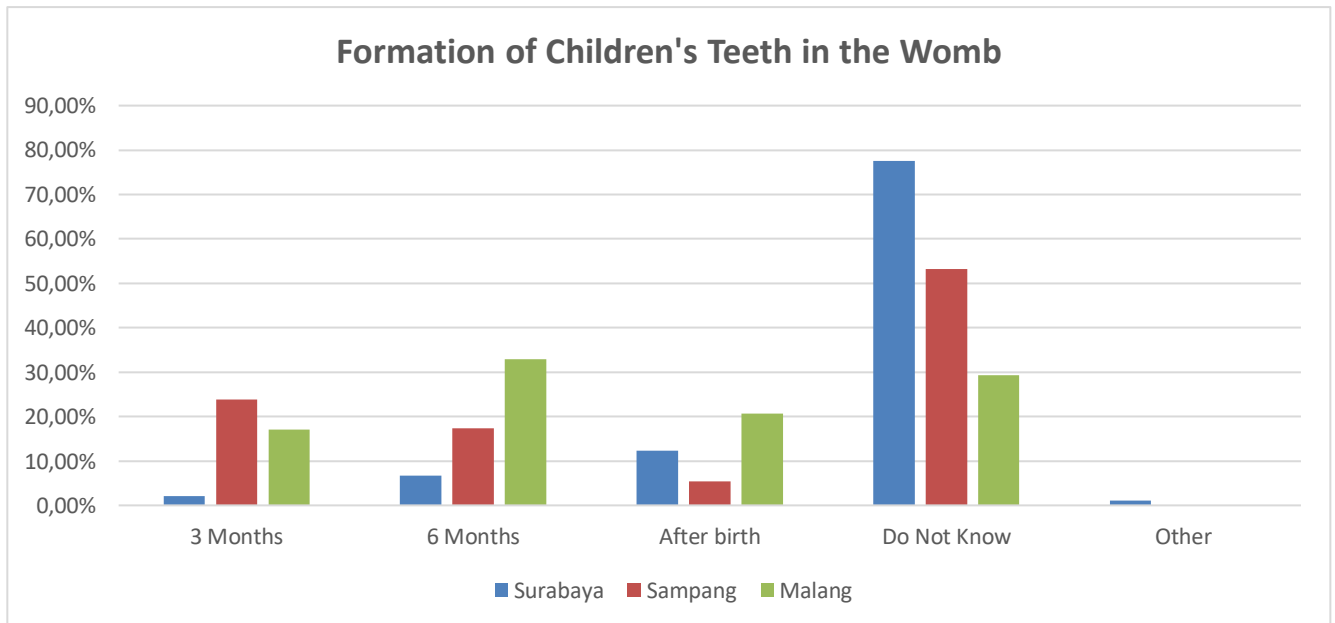


Figure. 4. Formation of Children's Teeth in the Womb
Source: Primary Data

Most respondents answered that they did not know about the time the child's teeth were formed in the womb. Among the respondents who answered that they did not know were 69 people in Surabaya, 49 people in Sampang, and 24 people in Malang. This finding showed that the respondent's knowledge about the time of formation of a child's teeth in the womb is still small. For this reason, it is expected that related parties such as midwives, doctors, and cadres will provide more information, especially regarding the time of the growth of a child's teeth in the womb. In addition, mothers can also seek information independently via the internet or social media.

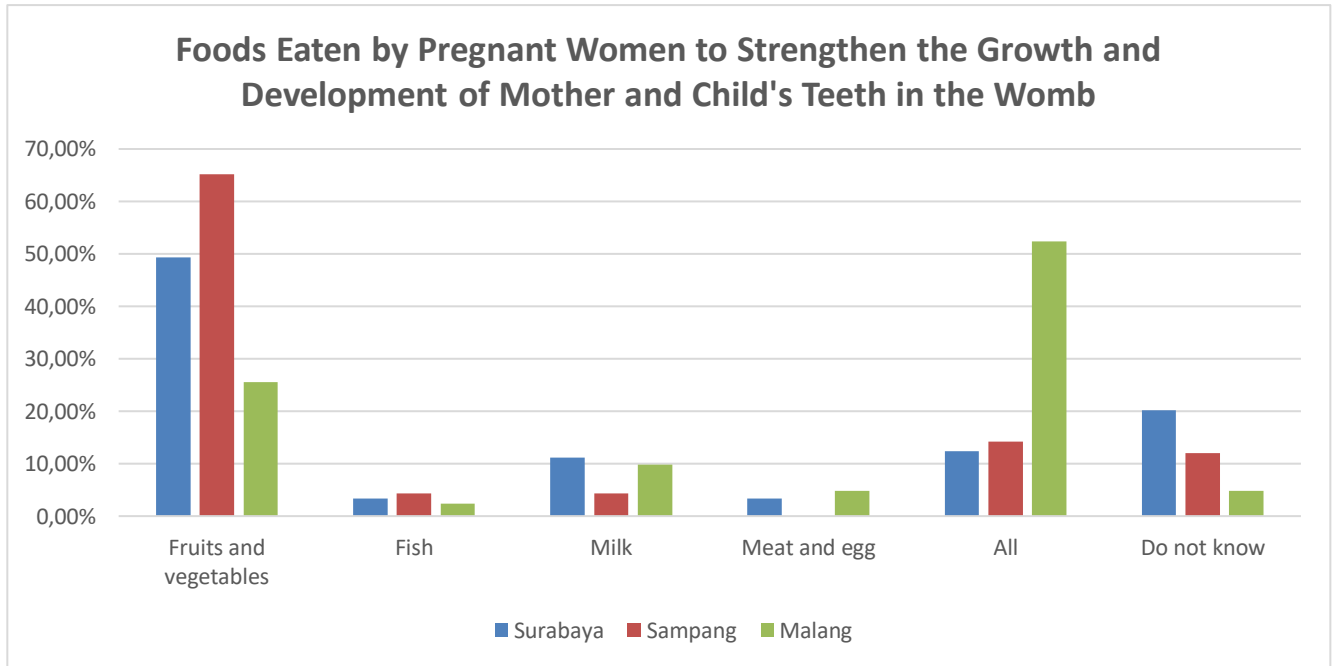


Figure. 5. Foods Eaten by Pregnant Women to Strengthen the Growth and Development of Mother and Child's Teeth in the Womb
 Source: Primary Data

Table 5 showed that most respondents already know what pregnant mothers should eat to strengthen the growth and development of maternal and child teeth while in the womb. As many as 44 Surabaya respondents answered vegetables and fruit, 3 answered fish, 10 answered milk, 3 answered meat and eggs, and 11 others answered all. While Sampang 60 respondents chose vegetables and fruit, 4 chose fish and milk, and 13 chose all ingredients. Whereas for Malang respondents, 21 people answered vegetables and fruit, 2 answered fish, 8 answered milk, 4 answered meat and eggs, and 43 others answered all ingredients. Even so, there were several respondents from these 3 regions who did not yet know what pregnant women should eat in order to strengthen the growth and development of maternal and child teeth while in the womb (Surabaya = 18 respondents, Sampang = 11 respondents, and Malang = 4 respondents).

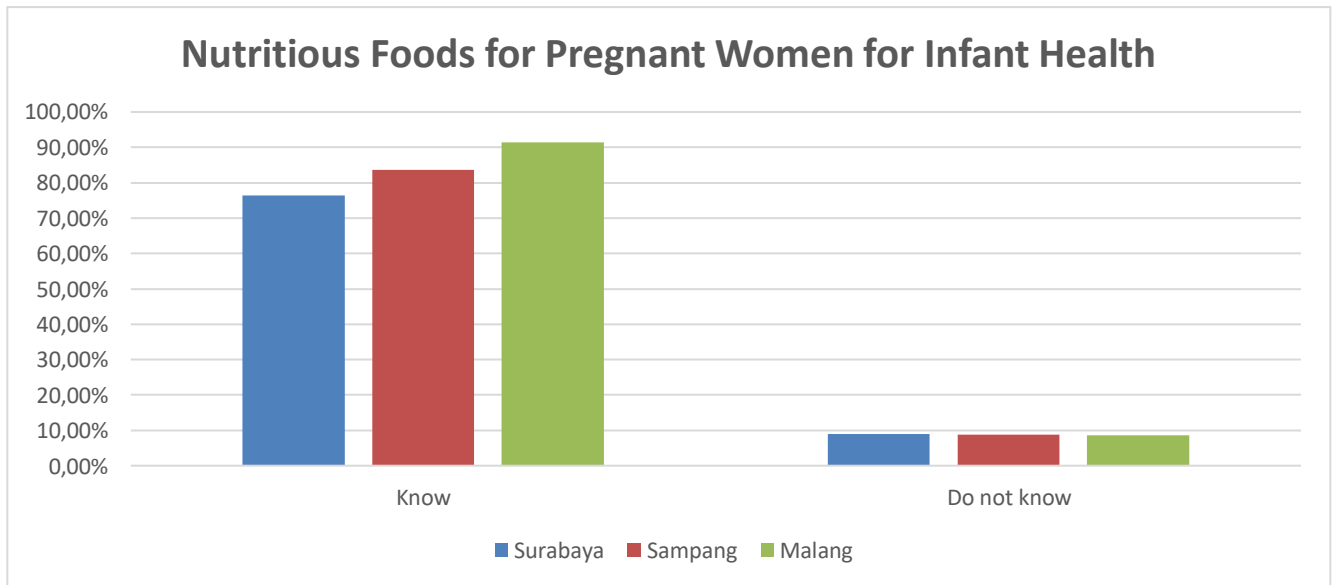


Figure. 6. Nutritious Foods for Pregnant Women for Infant Health

Source: Primary Data

Table 6 showed 75 Malang respondents know about nutritious food for pregnant women for infant health (91.5%). Meanwhile, 8.5% respondents do not know. This showed that most respondents know a variety of nutritious foods that are beneficial to the health of their babies. Although most Surabaya respondents do not seem to know the growth of first teeth in infants, however 76.4% respondents know that they needed to consume nutritious food during pregnancy, especially to support the growth of their baby teeth. Only as many as 13 respondents who do not know the nutritious food they have to consume during pregnancy affected the growth of baby teeth. Meanwhile, 77 Sampang respondents (83.7%) know about nutritious food for pregnant women for infant health. There were 8.7% respondents answered less knowing the information, and 5.4% do not know. Meanwhile, respondents who do not answer questions were 2.2%. This showed that many respondents already know about nutritious food for pregnant women for baby's health, so that the mother's condition during pregnancy and its baby can be equally healthy.

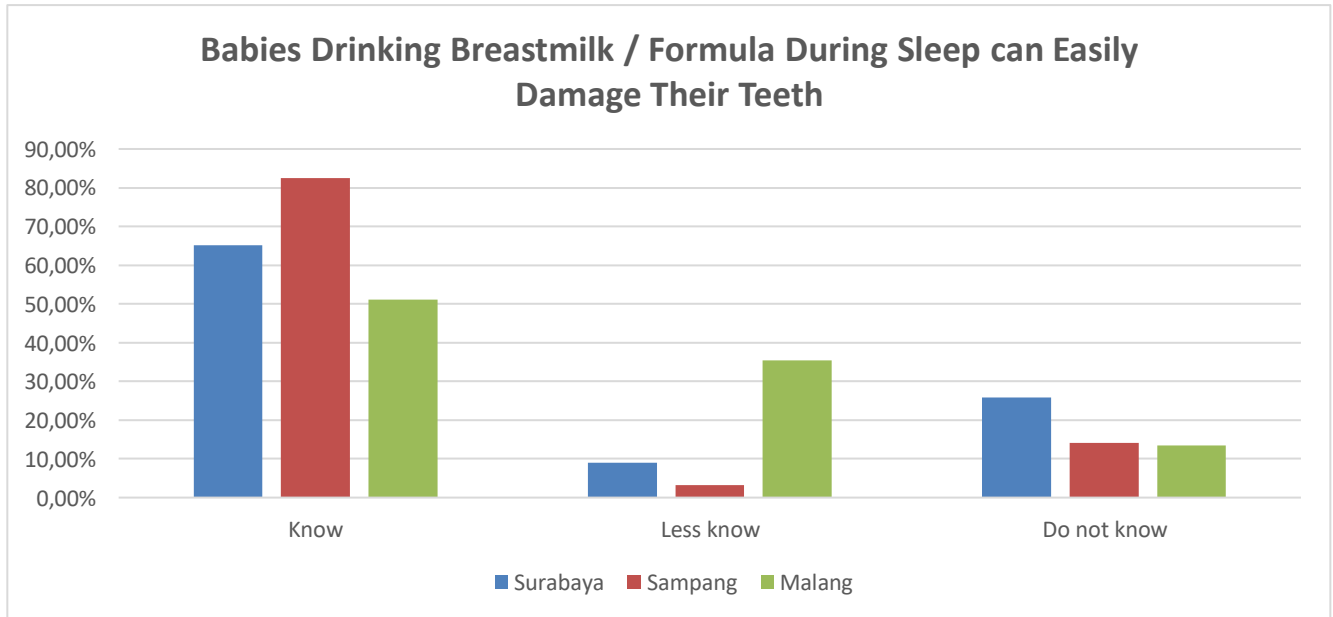


Figure. 7. Babies Drinking Breastmilk / Formula During Sleep can Easily Damage Their Teeth

Source: Primary Data

Table 7 showed 42 Malang respondents (51.2%) know about babies who drink breastmilk / formula while sleeping would easily get tooth decay. Meanwhile, 35.4% respondents are less knowing the information, and 13.4% respondents do not know. The above data showed that most respondents already know that drinking breastmilk/formula during sleep easily damages teeth, so that mothers will try to clean up the remaining milk. On the other hand, there were 58 Surabaya respondents (65.2%) know about babies who drink breastmilk / formula while sleeping would easily get tooth decay. Meanwhile, 9% respondents are less knowing the information, and 25.8% respondents do not know. There were 76 Sampang respondents (82.6%) know about babies who drink breastmilk / formula while sleeping would easily get tooth decay. Meanwhile, 3.3% respondents are less knowing the information, and 14.1% respondents do not know. The data above showed that most respondents already know that drinking breastmilk / formula during sleep easily damages teeth, so that mothers will try to clean up the remaining milk.

Formula served in bottles or called baby bottle tooth decay is the cause of caries in the deciduous teeth of children. Caries caused by formula usually occurs in children aged 1-2 years, and it occurs quickly and wide, causing severe pain (Yulita et al, 2013). Previous studies showed that the tendency of women to choose formula rather than breastmilk because of labor force participation. Therefore, formula given to infants can cause diarrhea/moniliasis as a result of impaired tooth growth (Siregar, 2004; Gaffney et al, 2004; Achmad et al. 2018).

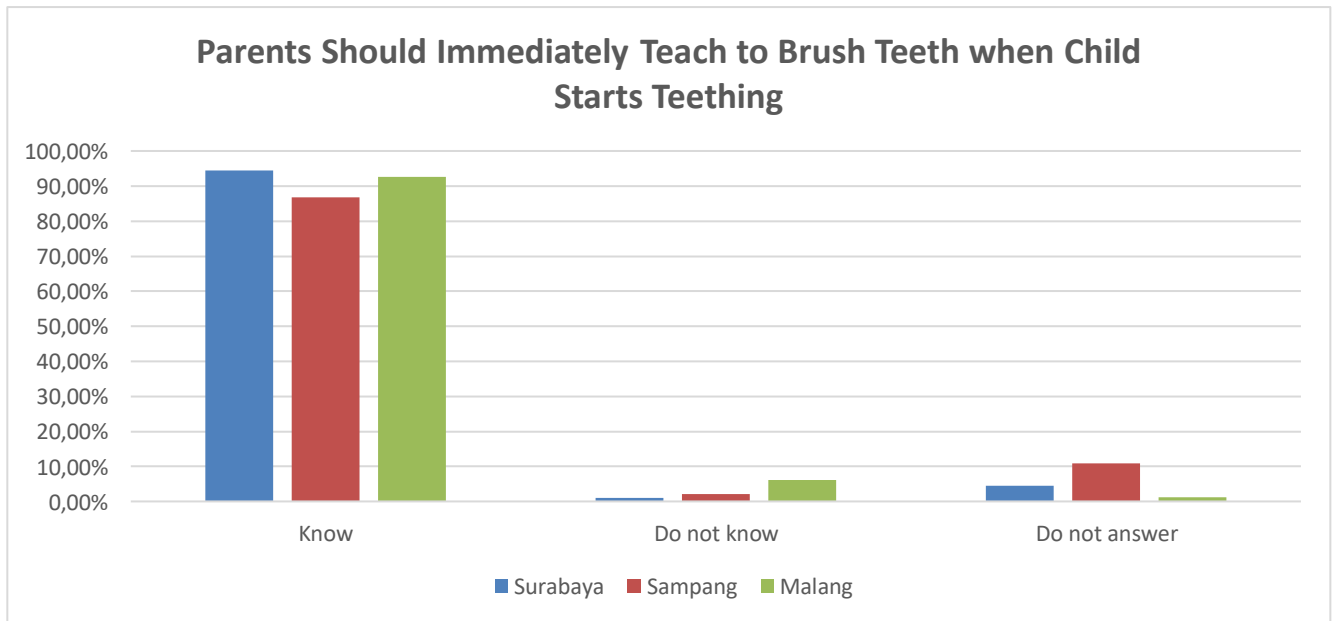


Figure 8. Parents Should Immediately Teach to Brush Teeth when Child Starts Teething
 Source: Primary Data

Table 8 showed that 76 Malang respondents (92.7%) know that parents should immediately teach to brush teeth when child starts teething. Meanwhile, 6.1% respondents do not know and 1.2% do not answer. It can be inferred that almost all respondents know that parents should immediately teach to brush teeth when child starts teething. In addition, children under five are already accustomed to brushing their teeth. There were 80 Sampang respondents (86.9%) know that parents should immediately teach to brush teeth when child starts teething. Meanwhile, 2.2% respondents do not know and 10.9% do not know. This result indicated that the respondents know the obligation to brush teeth so that children have been taught to brush their teeth at the age of 1 to 2 years.

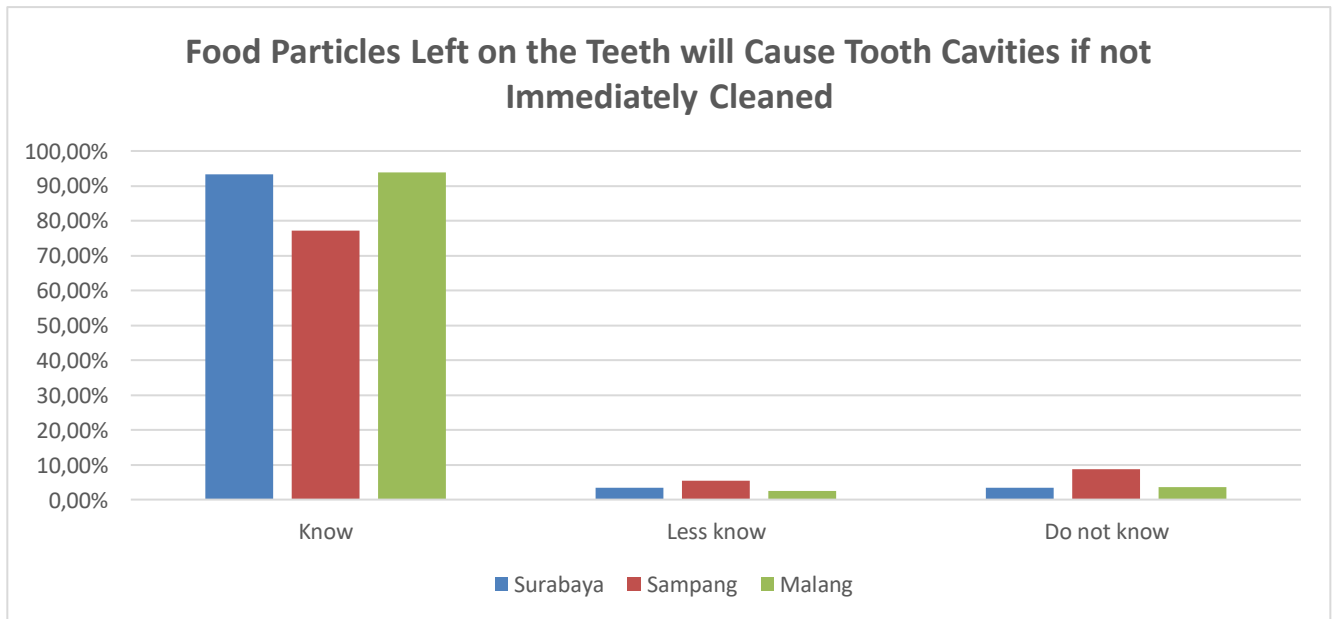


Figure. 9. Food Particles Left on the Teeth will Cause Tooth Cavities if not Immediately Cleaned

Source: Primary Data

Table 9 showed that 77 Malang respondents (93.9%) know that food particles left on the teeth will cause tooth cavities if not immediately cleaned. Meanwhile, 2.4% respondents are less knowing the information, while 3.6% respondents do not know. It can be inferred that most respondents know that food particles left on the teeth will cause tooth cavities if not immediately cleaned. Most Surabaya respondents (93.3%) also know that food particles left on the teeth will cause tooth cavities if not immediately cleaned. The respondents claimed they would immediately clean their children's teeth after they eat to prevent tooth cavities.

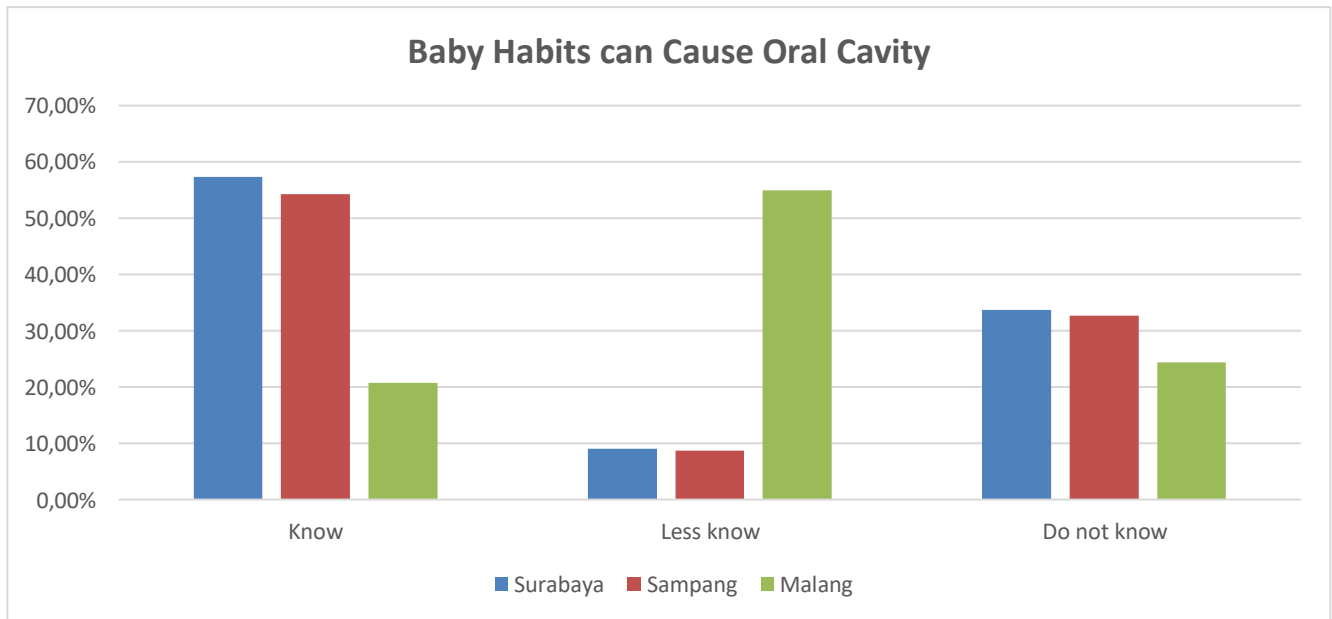


Figure. 10. Baby Habits can Cause Oral Cavity
 Source: Primary Data

Table 10 showed that 17 Malang respondents (20.7%) know about baby habits (e.g. thumb sucking) can cause oral disorders. Meanwhile, 54.9% respondents are less knowing the information, and 24.4% respondents do not know. This indicates that most respondents do not know if the habit of thumb sucking can cause oral disorders. It is likely that respondents will also let their baby suck their thumb. Oral deformity is also experienced by most children as the result of habits since childhood, such as thumb sucking. Oral phase experienced by infants/toddlers naturally happens and will be experienced by most toddlers. Therefore, it is not surprising that all parents will also allow this as a natural action. But, the habit of sucking the thumb turns out to also adversely affect the growth of oral cavity disorders that can be experienced by babies/toddlers. There were 89 Surabaya respondents (57.3%) know that the habit of thumb sucking could cause oral disorders. Meanwhile, 30 respondents (33.7%) apparently do not know this, and likely to allow their children to practice thumb sucking.

CONCLUSION

Mother's knowledge about the growth and development of children's teeth that have started during pregnancy has not been obtained optimally, so that mother's preparation to maintain the growth and development of children's teeth during pregnancy has not been maximized. Some mothers have limited access to sources of information about the growth and development of children at the time of pregnancy. This is due to the lack of knowledge on health cadres and limited facilities. The support or enthusiasm of the family and the local apparatus for maternal and children's dental health is quite good, but it needs continuity in socializing about it.

This study proposes several important recommendations in increasing children's dental health knowledge. The socialization of the growth and development of children's teeth

during pregnancy and the maintenance of children's dental health at 1000 days of birth needs to be conducted by increasing the intensity of meetings that involve dental health materials. In addition, the ability of health cadres, particularly in the field of the growth and development of children's teeth, should be improved through health lectures, communication between cadres and experts and communication through mass media.

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