

CHILDREN'S ORAL HEALTH BEHAVIOR IN CULTURAL PRACTICE: A QUALITATIVE STUDY OF EARLY CHILDHOOD CARIES IN PADANG CITY

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ABSTRACT

Early Childhood Caries (ECC) remains a major public health concern in Indonesia. While global studies have widely applied the Health Belief Model (HBM) to explain parental perceptions of oral health, limited research has integrated local cultural values and the role of early childhood education (ECE) in shaping oral health practices. This study explores how cultural norms, parenting styles, and educational settings influence children's oral health behaviors in Padang City. This study uses a qualitative case study design conducted at three early childhood education institutions with a Holistic Integrative Early Childhood Education program in Padang City (RA Ar Risalah, Adzkia, and Nirbas). Data was collected through observations, semi-structured interviews with parents and teachers and literature review. Purposive sampling identified actor informants (parents of children with and without caries) and ordinary informants (teachers, principals). Data analysis followed Miles and Huberman's three-stage approach: coding, data display, and conclusion drawing. Findings show that toothbrushing is culturally embedded in bathing routines, maternal control over diet is stronger than paternal or extended family control, and dental care is largely perceived as curative rather than preventive. ECC in Padang City reflects a complex interplay of cultural practices, parental roles, socioeconomic conditions, and institutional support. Addressing ECC requires culturally grounded interventions that involve both family and PAUD educators, while reframing oral health as preventive rather than curative.

Keywords: cultural; early childhood caries; oral health; parenting; PAUD

PERILAKU KESEHATAN GIGI DAN MULUT ANAK DALAM PRAKTIK BUDAYA: STUDI KUALITATIF KARIES ANAK USIA DINI DI KOTA PADANG

ABSTRAK

Karies Anak Usia Dini (*Early Childhood Caries/ECC*) masih menjadi masalah kesehatan masyarakat utama di Indonesia. Meskipun studi global telah banyak menerapkan *Health Belief Model* (HBM) untuk menjelaskan persepsi orang tua terhadap kesehatan gigi dan mulut, penelitian yang mengintegrasikan nilai-nilai budaya lokal serta peran pendidikan anak usia dini (PAUD) dalam membentuk praktik kesehatan gigi dan mulut masih terbatas. Penelitian ini bertujuan untuk mengeksplorasi bagaimana norma budaya, pola asuh orang tua, dan lingkungan pendidikan memengaruhi perilaku kesehatan gigi dan mulut anak di Kota Padang. Penelitian ini menggunakan desain studi kasus kualitatif yang dilakukan di tiga lembaga PAUD dengan program PAUD *Holistik Integratif*, yaitu RA Ar Risalah, Adzkia, dan Nirbas di Kota Padang. Pengumpulan data dilakukan melalui observasi, wawancara semi-terstruktur dengan orang tua dan guru, serta studi literatur. Teknik *Purposive Sampling* digunakan untuk menentukan informan pelaku (orang tua anak dengan dan tanpa karies) dan informan pengamat (guru dan kepala sekolah). Analisis data mengikuti tiga tahapan Miles dan Huberman, yaitu kodifikasi data, penyajian data, dan penarikan kesimpulan. Penelitian menunjukkan bahwa kebiasaan menyikat gigi telah terintegrasi secara budaya dalam rutinitas mandi, kontrol ibu terhadap pola makan anak lebih kuat dibandingkan peran ayah atau keluarga besar, serta perawatan gigi masih dipersepsikan terutama sebagai tindakan kuratif dari pada preventif. ECC di Kota Padang mencerminkan interaksi yang kompleks antara praktik budaya, peran orang tua, kondisi sosial ekonomi, dan dukungan institusional. Upaya penanggulangan ECC memerlukan intervensi yang berlandaskan budaya dengan melibatkan keluarga dan pendidik PAUD, serta menggeser paradigma kesehatan gigi dari pendekatan kuratif menuju preventif.

Kata kunci: budaya; karies anak usia dini; kesehatan gigi dan mulut; pola asuh; PAUD

INTRODUCTION

Dental caries is a health issue affecting many people worldwide. According to the World Health Organization (2019), approximately 2.5 billion

people worldwide are affected by dental caries. Dental caries affects individuals across genders and age groups in Indonesia. Nevertheless, health problems caused by caries are more common among children aged 3 to 4 years, reaching 42.7%, and in

5-year-old children it is 56.8% (SKI, 2023). Early Childhood Caries (ECC) is defined as the presence of one or more decayed, missing due to caries, or filled tooth surfaces in any primary tooth in a child 71 months of age or younger (American Academy of Pediatric Dentistry (AAPD, 2022). Dental caries can be caused by various intra- and extraoral factors. Early Childhood Caries (ECC) is widely recognized as a multifactorial disease influenced by oral hygiene practices, dietary patterns, fluoride exposure, and caregiver-related behaviors (Pitts et.al., 2017; Tinanof et. al., 2019). This is supported by Baroeva and Mamieva (2022) and Khabibjonova (2024), that factors that trigger caries problems include inadequate oral hygiene, poor diet such as frequent consumption of carbohydrates, sugar, and acids, damage or cracks in the enamel, decreased saliva production, gland dysfunction or certain medications, and a genetic predisposition to caries problems. Moreover, socioeconomic conditions and caregiver knowledge have been shown to significantly influence ECC prevalence (Folayan et al., 2021). However, the damage to deciduous teeth in children progresses more rapidly compared to adults (Skakodub et al., 2022).

The family environment, particularly the role of parents, plays an important role in maintaining children's dental health, since children's cognitive abilities are still limited, especially in dental care. Parental knowledge, attitudes, and practices have consistently been identified as key determinants of children's oral hygiene behavior and ECC risk (Al-shunaiber et al., 2019; Hooley et al., 2012). Therefore, when an oral health diagnosis is conducted on a child, it is necessary to carry out an evaluation that is not only based on the child's clinical condition, but also on factors at the family level due to the close interaction between the child and the family (González-Olmo et al., 2022). According to the Indonesian Dental Association (PGDI), parental particularly maternal attitudes and behaviors in maintaining oral health have a significant influence on children's behavior (Eddy & Mutiara, 2015). ECC is a type of disease that is not contagious, but is caused by social, cultural, and environmental factors related to dental care and sugar consumption, leading to the appearance of *Streptococcus* and *Lactobacillus* bacteria (Kusuma et al., 2023). Dental caries can also be related to cultural factors, as culture serves as a set of values that guide human life. According to Goodenough (quoted in Keesing, 1974) culture refers to those elements in the human mind that consist of guidelines for determining what to be, what to feel, how to act upon it, and how to face it. Culture, internalized in the human mind

through learning, may influence parents in caring for their children's teeth, since it relates to values and perceptions about teeth themselves. Culture also affects parenting practices as well as the types of food provided to children. This is supported by Herlan et al. (2020) who stated that not every community defines health solely based on physical conditions, but also on values, beliefs, and cultural factors that shape the definition of health.

Cultural manifestations related to dental health problems include: (1) Iptika's (2014) study entitled *The Relationship between Betel Nut Chewing Habits and Beliefs and Dental Health*. The findings showed that betel chewing, practiced for pleasure similar to smoking and believed to strengthen teeth, in fact causes dental health problems such as irregular teeth, tooth loss, and tooth discoloration. (2) Trikarjana's study (as quoted in Permatasari & Artaria, 2015) entitled *Controversy on Dental Caries and the Distribution of Fluoride Tablets in Palembang City*. This research shows that pempek, which consists of sago and vinegar, can cause dental problems because the sticky texture of sago can adhere and form plaque, and the acidic vinegar can damage tooth enamel. (3) Prossinger and Willms (s quoted in Permatasari & Artaria, 2015) in *Diet and Nutrition in Prehistoric Central Europe* explained that staple food variation had different impacts on dental problems, such as North American maize-cultivating societies, which had a higher caries frequency compared to rice-cultivating societies. (4) In the modern era, a culture has emerged of consuming snacks and sweet drinks as refreshments between meals (Mahmoud et al., 2022). From the above explanations, it is evident that culture plays an important role in both maintaining and impairing dental health.

Culture does not merely encompass traditional knowledge, but is dynamic, depending on continuously changing life conditions. This statement regarding the dynamic nature of culture is interpreted through Kistanto (2017) who stated that culture originates from human awareness of experiences, encouraging the formulation of definitions, boundaries, and theories of human life activities. Although parental culture plays an important role in children's lives, parental education regarding children's oral health is not the sole factor influencing children's vulnerability to caries; educational institutions also play a role. One of the earliest educational institutions for children that participates in health education is Pendidikan Anak Usia Dini (PAUD). This is emphasized through the self-efficacy theory of behavior change by Judge and Bono which highlights the importance of role mod-

els within the surrounding society (Adhani et al., 2018). According to Dewi (2022), Pendidikan Anak Usia Dini (PAUD) is one of the central figures in supporting the education of young children, as the role of educators is important in character education and habituation, as well as in continuing the good practices that have been carried out at home by the children's parents. Furthermore, it can be said that early childhood education (PAUD) plays a role in supporting children's health because PAUD directly facilitates learning for children about hygiene, diet, and physical activity. Thus, the issue of dental caries experienced by children can be influenced by both the family and school environment.

Although several international studies have demonstrated the construction through the Health Belief Model (HBM), which attempts to explore how parents perceive perceived benefits, perceived barriers, perceived susceptibility, perceived severity, and self-efficacy in relation to children's oral health behaviors and ECC risk (Liu et al., 2024). Most of these studies were conducted outside Indonesia and did not integrate local cultural contexts. In Indonesia, research revealed that children's oral health behaviors are influenced not only by family factors but also by teachers' roles in shaping cues to action and students' self-efficacy (A'yun et al., 2016; Nurjanah et al., 2022). However, no studies to date have comprehensively integrated urban cultural values with the role of PAUD in ECC prevention. Especially when interacting with urban communities like the city of Padang, which must have the Minangkabau ethnic group as the majority, but there are also people from other ethnic groups, so at the very least there are differences with the local culture due to social friction that occurs with various communities.

This research gap is increasingly significant given that West Sumatra is among the provinces with the highest prevalence of dental caries in Indonesia, reaching 48.2% of 17,114 individuals/samples (SKI, 2023). In addition, based on data from the Ministry of Education and Culture (Kemendikbud, 2025), Padang City ranks first in the number of PAUD institutions in West Sumatra, with 542 out of a total of 5,087 PAUD institutions across 19 districts/cities. This condition makes Padang City a strategic context to examine how the high prevalence of caries can be understood through the lens of culture. Culture is not only seen as traditional rules but also as a system that regulates daily life and is dynamic, especially in modernized life like today, as well as how the role of

PAUD as an early childhood educational institution can be optimized in preventing ECC.

METHOD

This study employed a qualitative method with a case study approach. Qualitative research, according to Strauss and Corbin, is defined as a type of research in which findings are not obtained through statistical procedures or other forms of quantification, but rather simply describe and analyze phenomena that occur. Furthermore, according to Afrizal (2014) a case study is an approach that refers to the determination of a case or the exploration of a system bounded within a particular time and place. The focus of this research is the identification of dental caries problems in early childhood, particularly among students enrolled in Early Childhood Education (PAUD) in the City of Padang. This is due to the fact that dental health problems continue to occur, making it necessary to understand the origin of the problems and the extent of the influence of these factors on children's dental health.

This research is located in three early childhood education institutions (PAUD) in different districts, namely Nibras Islamic Kindergarten in East Padang District, Adzkia III Integrated Islamic Kindergarten (IT) in Koto Tengah District, and Ar Risalah Kindergarten (RA) in Kuranji District. The research sites were selected from eleven districts in Padang City, West Sumatra Province, Indonesia. Based on information from the education office, of the four districts with the highest number of early childhood education institutions (PAUD), only three districts have implemented The Holistic-Integrative Early Childhood Development (PAUD HI) programs well. According to information from the education office, the following is a list of PAUDs and their locations where the PAUD HI program is well implemented: Nibras Islamic Kindergarten in East Padang District, Adzkia III Integrated Islamic Kindergarten (IT) in Koto Tengah District, and Ar Risalah Kindergarten (RA) in Kuranji District. Another reason for conducting research in these locations is to observe the dental health conditions of children where the PAUD HI program is well implemented to see whether it has a significant impact on the children's condition. In addition to different schools, different regional locations are expected to provide variations in data on differences in parenting patterns, especially since the tendency for children to choose a school is often thought of based on where they live. The research was conducted from May 2025 to July 2025, data collection techniques

were carried out through several methods, including observation, interviews, and literature review. The researcher was directly involved in the learning activities at PAUD to observe how children's social life took place, when it occurred, and what elements were involved in the process. This observation was then reinforced with interviews conducted with teachers and parents, using a set of pre-prepared questions. The findings were then analyzed with reference to previous research relevant to the topic.

The informant selection technique used in this study is Purposive Sampling, namely the deliberate selection of informants based on predetermined cri-

teria set by the researcher. These criteria divide the informants into two categories: actor informants and ordinary informants. According to Afrizal (2014), the actor informant is someone who provides information about themselves, including knowledge and behavior related to the phenomenon being studied. Meanwhile, the observer informant is someone who provides information about the actor informant because they live alongside them directly and are aware of the phenomenon that occurs. Therefore, the actor informant consists of several criteria determined by the researcher as follows: Parents who have children aged 4 to 6 years, parents whose children attend school at Ra

Table 1. List Of Actor Informants

Kode	Age	Occupation	The Child's Dental Condition	School Name
P1	34	Homemaker	Caries-Free,	Ar Risalah
P2	34	Homemaker	Caries-Free,	Ar Risalah
P3	32	University lecturer	Dental Caries	Ar Risalah
P4	33	Chief Clinical Coordinator	Dental Caries	Ar Risalah
P5	52	University lecturer	Caries-Free,	TK Islam Nibras
P6	33	Civil servant	Caries-Free,	TK Islam Nibras
P7	33	University lecturer	Dental Caries	TK Islam Nibras
P8	33	Principal	Dental Caries	TK Islam Nibras
P9	42	Homemaker	Caries-Free,	TK IT Adzkia III
P10	36	Homemaker	Caries-Free,	TK IT Adzkia III
P11	34	Homemaker	Dental Caries	TK IT Adzkia III
P12	40	Homemaker	Dental Caries	TK IT Adzkia III

Source: Primary Data 2025

Table 2. List of observer informants

No	Name	Position
1	P13	Ra Ar Risalah
2	P14	Adzkia III
3	P15	Nibras

Source: Primary Data 2025

Meanwhile, the observer informants are individuals who live alongside the actor informants. The criteria set by the researcher are the parties responsible for students such: as school principals and teachers, who, due to their involvement in the children's social environment, possess relevant in-

sights related to the research problem. The following is the list of actor and observer informants:

ata analysis is carried out by researchers to draw conclusions from the data collected during field research. Therefore, the transformation of data from an emic perspective (from within) to an etic perspective (from outside) requires careful examination. In this context, data analysis followed the three-stage method proposed by Miles and Huberman (Afrizal, 2014), which includes: data coding, data display, and conclusion drawing/verification. The data coding stage involved categorizing or labeling the findings so that the data could be classified and focused based on those labels. After the coding process was completed, the next step was data display, in which the research results were presented in categories or groupings through a matrix.

Finally, the conclusion drawing/verification stage was carried out based on the research findings, and the researcher re-examined the validity of the data by repeating the coding and data display processes until the research was concluded.

The division of tasks among the research team is divided into three types; the principal investigator is responsible for Conceptualization, Data Curation, Formal Analysis, Investigation, Methodology, Administration, Resources, Supervision, Validation, Visualization, Draft Writing, and Writing-Review & Editing. Meanwhile, the second, third, and fourth researchers are responsible for Conceptualization, Formal Analysis, Methodology, Validation, and Draft Writing. Then the fifth to eighth authors are responsible for Investigation, Validation, and Data Curation.

RESULTS AND DISCUSSION

Dental health is a condition in which oral hygiene is well maintained and achieved through proper hygiene practices. Tooth-cleaning activities are habits that are developed and influenced from an early age. Therefore, the formation of oral hygiene habits originates from educational institutions and other social environments, especially parents. To promote healthy habits, particularly in maintaining dental health, Indonesia has implemented the PAUD HI Program in Early Childhood Education (PAUD) institutions.

The Holistic-Integrative Early Childhood Development (PAUD HI) Program targets not only children in understanding the importance of dental health but also parents through Parenting Program in PAUD HI, ensuring that the program aligns with the vision and mission being developed. Parents are involved by schools in understanding their children through socialization and communication regarding the learning activities provided at school. In addition, PAUD implements programs aimed at maintaining children's dental health, including supervised toothbrushing practices and monitoring children's food consumption.

In particular, PAUD institutions in Padang City conduct toothbrushing practices daily and, at a minimum, once a month, depending on each school's policy. This activity aims to provide children with knowledge about proper tooth-cleaning techniques and the importance of maintaining healthy teeth. Furthermore, PAUD institutions monitor students' food intake by restricting them from bringing food from outside the school and by providing nutritious meals that support good dental health.

Nevertheless, there are factors beyond the school's control that continue to affect the dental health of children in Padang City. These factors include parents allowing children to consume unhealthy foods after school, parental toothbrushing habits that do not follow recommended guidelines, and inconsistent parental supervision of children's oral hygiene practices. As a result, children continue to experience a high prevalence of dental caries. Therefore, parental understanding of children's health conditions is crucial for achieving the vision and mission of the Holistic-Integrative Program. To provide a clearer understanding, the following discussion explains the factors that influence children's dental health and contribute to the occurrence of dental caries.

The Culture of Tooth Cleaning

Table 3. The Tooth Brushing Schedule Of The Informants Children

Kode	Intensity Of Brushing Teeth	Parental Control And Supervision During Tooth Brushing
P1	two times a day	supervised
P2	every time they take a bath	supervised
P3	every time they take a bath	not supervised
P4	every time they take a bath	not supervised
P5	two to three times a day	not supervised
P6	three times a day	not supervised
P7	two times a day	not supervised
P8	two to three times a day	not supervised
P9	three times a day	supervised
P10	two times a day	not supervised
P11	two times a day	not supervised
P12	three times a day	not supervised

Source: Primary Data 2025

Culture is an integral part of human life, particularly in carrying out daily activities, and it is acquired through a learning process, so that every action becomes part of culture (Koentjaraningrat,

2009). Children, who fundamentally learn from their parents, will absorb all knowledge obtained through behavioral examples observed or taught by their parents, without distinguishing whether it is right or wrong. One cultural practice acquired is cleaning the teeth while bathing, and this culture has become widespread in society, including among parents at three PAUD institutions: RA Ar Risalah, Adzkia, and Nirbas. The culture of parents in tooth cleaning is based on their knowledge that bathing is an activity of cleansing the body as a whole, including the teeth. Thus, measuring how regularly a person or child cleans their teeth is based on how often the child takes a bath. Additionally, the time for brushing teeth can also be measured according to the child's bath time, and the most common and primary time is in the morning, as the morning is when children start their activities, such as going to school. Other times are after the child has completed their activities, such as in the afternoon. Findings regarding the informants' explanations concerning the frequency of their children's tooth-cleaning activities are summarized in Table 3 above.

In the Indonesian context, tooth cleaning is closely linked to bathing activities, forming a cultural habit that is widely practiced. However, its implementation varies among individuals, especially with regard to the timing. Tooth cleaning is generally classified into morning, afternoon, and evening routines. Referring to the data obtained from the informants, the timing patterns of children's tooth cleaning are presented in Figure 1.

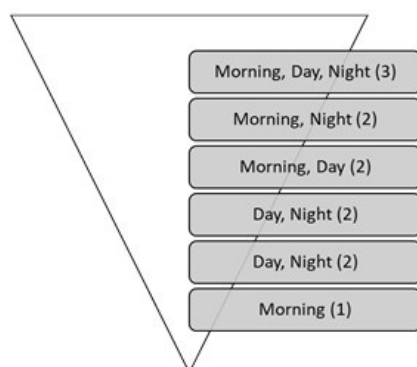


Figure 1. The General Timeline For Cleaning Teeth

Source: Processed Results Of The Author 2025

In addition to the timing of tooth cleaning, the method of performing it also plays a role. Previous studies emphasize that brushing frequency alone is insufficient without proper technique and parental

supervision (Dos Santos et al., 2018). Children who are still in the learning phase will imitate what they see or what their parents convey, including during tooth cleaning. Children are taught that tooth cleaning is an activity of putting a toothbrush into the mouth and brushing the teeth with it. However, the assumption that cleaning their teeth means simply putting a toothbrush in their mouth often leads to improper execution, such as brushing without toothpaste, brushing only the front teeth, biting the toothbrush, or merely putting the toothbrush in their mouth. These phenomena occur because, in practice, children are sometimes outside their parents' supervision due to several factors, such as the child's desire for independence, parental encouragement of independence, or parents' lack of time for supervision. This is reinforced by the statement of P1 as follows:

"In the morning during bathing and at night before sleeping, now she is already in the stage of becoming independent because she is growing up, so she is in a transitional stage but still supervised because of the concern that she might not brush properly. Since this is the beginning of fostering independence, she is being accustomed to brushing thoroughly because if left as it is, she will continue brushing that way into adulthood."

Mothers, as those entrusted by the family with the responsibility of educating children, apply behaviours consistent with their own habits. this is emphasized by the following statement of informant P4:

"The parenting style applied by his father and aunt will be slightly more relaxed compared to his own, especially regarding the types of food consumed by his child."

Parents consider bathing the easiest time for children to brush their teeth or to become accustomed to doing so, even though, in practice, parents themselves recognise that tooth cleaning coincides with bathing. Furthermore, early childhood requires parental assistance to ensure proper tooth cleaning, though this is not always provided, as children aged 4 to 5 are already being taught independence, particularly in how they brush their teeth. In practice, children at the PAUD level are encouraged to begin living independently, or they express a desire to learn independence. Although parents still attempt to mon-

itor children’s brushing, it is not as intensive as when children were funder of 3.

Parental Control Over Children’s Food

Parents play a crucial role in children’s dental health, particularly since the family environment is the primary institution where children acquire knowledge. In practice, parents in Padang recognize that sweet foods are the main factor contributing to dental problems in their children. Parents impose restrictions on the types of sweet foods children can consume, yet in practice, they still grant children the freedom to purchase them. The freedom given to to children to purchase food/snacks is not solely dependent on parents (father and mother), but also on other family members, such as aunts and grandparents, who also participate in child-rearing. Based on the informants’ statements regarding the types of food identified as causing dental problems, this information is presented in **Table 4**, and several responses also address the children’s eating behaviour.

Differences in parenting styles among family members provide children with multiple options to act according to their wishes. Mothers, who generally impose stricter restrictions on children’s snack purchases, differ from fathers and other family

members, who tend to be more lenient, so the rules imposed by mothers are not absolutely enforced. In this situation, children become aware of the family dynamics and prioritize approaching family members who are more lenient in order to fulfill their desire to purchase snacks. This is represented by the statement of **P3** as follows:

“Because children’s snacks nowadays are indeed sweet snacks, and since my child likes milk, chocolates, and ice cream, that’s why there is already a little decay in her molars because she likes sweet foods. She really likes sweets, but we limit it, not allowing everything. However, every day there is still some, sometimes with her father because with me the restriction is stricter, but with her father the snack restriction is not too tight.”

Good dental health is not only determined by avoiding certain foods but also by habits established from an early age. Children’s dental health can be maintained through intensive supervision, especially during tooth cleaning. Parents whose children’s teeth are in good condition are influenced by their commitment to monitor the types of food their children should eat. As a result, habits that

Table 4. Children’s Eating Behaviors

Kode	Children’s Preferred Food Types and Parental Responses to Their Food Intake.
P1	Does not want candy or chocolate because they are used to being restricted.
P2	Does not like sweet foods such as chocolate and candy.
P3	All types of sweet foods such as candy, chocolate, and milk
P4	The parents and the aunt (caregiver) are not consistent in enforcing food regulations. The child enjoys all sweet foods but does not like spicy foods
P5	Shopping is only allowed at supermarkets. The standard choice of ice cream snacks is the Magnum brand. The parents own a Minang-style restaurant (serving staple real food).
P6	Shopping is controlled, only allowed to shop at the small store next to the house. Given options between sweet foods and cold foods
P7	Pasta, flavored yogurt, flavored milk
P8	Likes chocolate wafers such as Oreo. Candy must be crushed first.
P9	Shops at the minimarket with the parents, and the child is not given the right to choose snacks.
P10	Does not like candy
P11	Likes ice cream, candy, and chocolate biscuits, but also enjoys eating fruits.
P12	Snacking is accompanied but not controlled. Chocolate candy is preferred. Lunchbox contains bread and flavored milk

Source: Primary Data 2025

have been practiced for years make the children accustomed to a type of food that tends to be monotonous and unwilling to change. Thus, children who have been taught which foods are allowed or considered healthy are likely to follow these patterns and resist alteration.

Dental Care for Children

Parents in Padang City, particularly those at RA Ar Risalah, Adzkia, and Nirbas, consider health facilities as supporting measures when dental problems arise, rather than as part of the priority of preventive care. Parents also perceive that public health facilities such as community health centers (puskesmas) lack appropriate standards for approaching children. As a result, some children whose parents attempt to seek dental care encounter difficulties due to traumatic experiences from their first visit. This is related to the parental view that health facilities are places for treatment rather than preventive care, reinforcing children's association of dental visits with illness and treatment, thereby contributing to trauma. The parents reported the following:

P7: "child first went to the community health center (Puskesmas) when she complained of a toothache. When she visited a dentist, her teeth had already been in pain twice at the puskesmas and was only given medicine. The last time, she finally went to a dentist and it turned out she had a cavity, which was filled about five months ago."

P8: "Atta has only been to the dentist once because his gums were swollen and his tooth was aching."

P9: "There are no regular dental check-ups; teeth are only examined when there is pain at the nearest clinic. If there is no pain, no check-up is done."

P12: "No special dental care is done for the child regularly, except when there is a problem, such as tooth extraction, then the child is taken to the nearest clinic that has a dentist."

A person's economic ability becomes a fragment within life, as it often plays a role in helping someone gain access to facilities, education, and healthcare. However, the process of acquiring economic ability becomes a polemic issue for a person regarding the intensity of life between a child and their parents. This finding suggests that economic

capacity alone does not necessarily translate into protective oral health practices. Instead, supervision intensity, time availability, and caregiving arrangements appear to mediate children's vulnerability to ECC. Previous studies similarly highlight that socioeconomic status interacts with behavioral and parental factors rather than functioning as a single determinant (Peres et al., 2019).

Parents with higher economic capacity may provide adequate living standards for their children, yet they may neglect the crucial aspect of spending time and developing closeness with them. Parents in Padang City are generally divided between families where the father is the primary breadwinner and families where both parents work. The number of working people in a family will provide more sources of income and also have a positive impact on the family's economic condition. However, in the case of Padang City, it actually shows that a person with good economic conditions makes children more prone to health problems, especially those related to children's teeth. If one of the parents works, then the other parent can stay at home to take care of the children, but if the opposite occurs, it makes the children more vulnerable to health problems. This situation hinders adequate supervision of tooth cleaning. Furthermore, children whose parents both work may accompany them to workplaces, as described by P4:

"When her father takes her to campus, that's when it becomes uncontrolled. Sometimes his colleagues offer candies or donuts, and she just takes them."

Further problems can arise in the workplace, such as parents catering to their children's various needs to prevent fussiness at work, including food preferences that can potentially cause dental problems. This situation is often not accompanied by proper dental cleaning due to the lack of facilities or the lack of adequate conditions. In a work environment filled with coworkers, parents are also unable to control their children's feeding practices, particularly regarding their children's dental health. This can also contribute to children developing dental problems such as caries. Parents are limited by the fact that they are not always present with their children, so this control tends to be looser depending on the child's wishes. Although the knowledge passed down to children will keep them under their parents' control, however, children are accustomed to always getting what they want, which itself becomes part of their acquired knowledge.

Patterns of Caries Problems in Children

Early Childhood Caries (ECC) is a dental health problem that is not solely caused by medical factors, but is also related to socio-economic dimensions (Okyere Boadu et al., 2025). These three interconnected elements medical, social, and economic make ECC a highly complex issue. However, culture also plays a role in the emergence of caries. Culture serves as a foundation within each individual, encompassing knowledge and shaping behavior to conform to accepted values within their environment. Yet, in the case of early childhood, children are still in the process of acquiring knowledge that will determine their behavior. Parents or families are the primary institution through which children obtain such knowledge. Parents' knowledge of dental and oral health is a key factor that influences the health outcomes of their children, as demonstrated by phenomena observed in Padang City, West Sumatra Province.

Padang City, whose majority population comes from the Minangkabau ethnic group, is strongly influenced by cultural traditions in its social and cultural life. Nevertheless, according to Dewi (2018), Padang is also home to various other ethnic groups, such as Javanese, Malay, Chinese, Mentawai, Batak, Acehnese, Tamil, and others. The city's ethnic diversity and its multicultural character mean that people's knowledge and behaviors are shaped less by their traditional culture or majority ethnicity, and more by knowledge that adapts to their social conditions. This condition is emphasized by Solihin (2015) who stated that societal change can occur in both social and cultural aspects. Social change refers to social structures and social relationships, while cultural change refers to changes in cultural aspects, and these changes will affect existing values and norms. Consequently, issues related to dental health, such as ECC, also need to be

understood through the socio-cultural phenomena and conditions in Padang City itself.

Children in Padang City acquire knowledge not only from their family environment, but also from their school and neighborhood. Parenting styles, social environment, culture, and perceptions of dental health play a major role in children's knowledge of dental health. These environments influence how children acquire knowledge, which eventually becomes embedded as part of cultural practices in maintaining oral health. Accordingly, these factors directly affect the dental health status of children, particularly regarding caries (**Figure 2**).

With reference to the figure above, the intended meaning is that the toothbrushing culture derived from parental knowledge and transmitted to children ultimately shapes children's oral hygiene behaviors, leading them to engage in the same practices. The alignment of knowledge between children and parents represents a form of education provided by the parents. In practice, the culture of toothbrushing as carried out and taught by parents in Padang City is performed during bathing. Thus, the intensity of toothbrushing depends on the frequency of bathing, whether once up to three times a day. The perception is that the routine of bathing constitutes a cleansing activity of the entire body, including the teeth. As a result, if problems with dental conditions occur, these are attributed to cleansing practices that are not carried out according to proper procedures.

Dental caries in children is regarded as a problem stemming from the children's habit of consuming sweet foods. Therefore, controlling the types of such foods is seen as a way of addressing dental problems. Nevertheless, control over children varies among family members, which becomes one reason why food restriction cannot be implemented effectively. Mothers act as the main figures enforcing strict rules regarding children's health, especially in controlling food consumption. How-

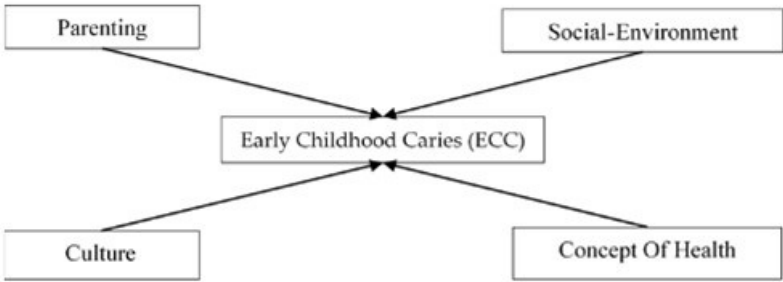


Figure 2. Elements Of The Emergence Of ECC

Source: Processed Results Of The Author 2025

ever, it is different when children are under the supervision of fathers or other family members, who tend to be more flexible. The differing parenting patterns are the key factor in why the control of children's diets does not function properly.

Conditions influencing the flexible parenting of family members can occur due to the family's economic situation. If the household income relies solely on the father, then the mother usually takes on the role of a housewife who is intensively at home, thus enabling stronger supervision of the child. However, if both parents are equally occupied with work, control over the child tends to be more flexible. In cases where both parents work, the child usually accompanies one of the parents after school until their working hours are completed. When children are present in the parents' workplaces, parents often try to fulfill all the children's wishes so that they do not throw tantrums or disturb the workplace. By contrast, if other family members such as an aunt or grandmother are at home, they also take on the role of looking after the child after school. These caregivers similarly tend to fulfill all of the children's wishes, including those involving foods that cause caries.

Decisions to utilize healthcare facilities to address children's dental problems do not lie with the children but are under the authority of parents. Parents, who hold such authority, have the right to decide on their use. However, parents who hold negative perceptions of dentists particularly the view that dental treatment is painful tend to shield themselves and their children from it. As a result, parents will strive to prevent their children from having dental problems by emphasizing proper tooth-brushing. Moreover, parental fear of dentists is often turned into a form of teaching doctrine, such as "if you do not brush your teeth, your teeth will be damaged and you will be taken to the dentist," which creates a distinct trauma for the children. This creates trauma for children. However, the appearance of caries, such as black spots or decayed teeth, is not a reason for parents to consider it a critical issue. Parents' perceptions of their child's dental health, based on whether the child is bothered by pain, become the primary basis for whether the child requires medical attention. The perception of pain as a necessary condition for medical treatment is a form of knowledge held by parents, and this perception is also passed on to children. Medical conditions requiring medical treatment include not only dentists but also all other healthcare professionals. Consequently, parental interventions for

children's health problems often create a sense of trauma in children, reinforcing the belief that medical treatment is inherently painful.

The social environment also constitutes a factor influencing children's dental health, since children do not live exclusively within the family setting, meaning that parental control is not the sole determinant. Children's independent routines, such as schooling, can contribute to the emergence of caries. Children spend significant time at school at least five days per week outside of parental supervision. Problems concerning food restrictions may also be undermined by the children's environment. Because some children initially dislike or even don't know the types of foods that their parents have restricted from childhood, these preferences are often distorted by the child's environment, such as introductions from friends, coworkers, parents, and even other family members. External factors are one of the factors that increase the potential for dental health problems, so some of the foundations built by parents can be eroded for the sake of their child's enjoyment. This reflects how the emotional relationship between parents and children can serve as a basis for the emergence of health problems, particularly dental issues.

Knowledge is something possessed by humans that serves as a guide for behavior. Knowledge can be influenced by culture, and this is reinforced by Good enough (as cited in Keesing, 1974), who stated that culture is neither a behavioral pattern nor merely the product of behavior (materials), but rather knowledge that resides in the human mind. This means that culture is a set of human knowledge comprising guidelines for determining what something is, how it should be understood, and how it is valued. Conversely, knowledge can also influence culture, as emphasized by Putra (2012), who argued that humans are beings endowed with awareness or knowledge regarding what they do in facing their environment or circumstances. The elements influencing behavior arising from such knowledge are shaped by perspectives, values, norms, and related factors.

The inverted pyramid in the **Figure 3** above represents the levels of parental knowledge regarding cariogenic foods. At the top of the pyramid are types of foods that are widely known to pose a risk of causing dental caries, such as candy, chocolate, and ice cream, which constitute knowledge categorized as common knowledge (Ernst, 2011)¹. This information is easily accessible, frequently conveyed in popular health media, and has become

¹ Common knowledge is usually defined as a state in which everyone knows that p, everyone knows that everyone knows that p, and so on, ad infinitum.

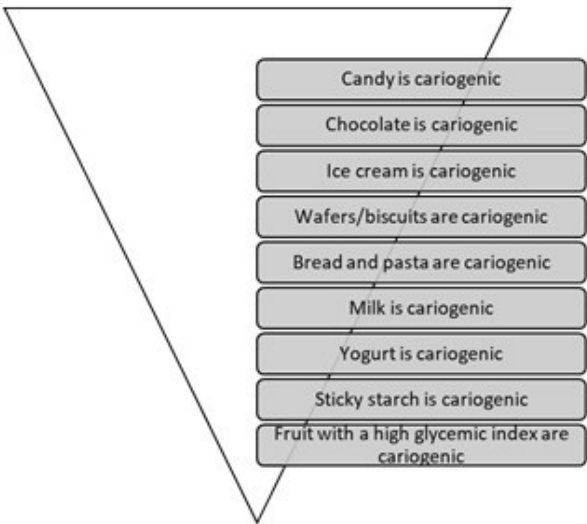


Figure 3. The Depth Of Knowledge About Types Of Foods Causing ECC
Source: Processed Results Of The Author 2025

part of the general discourse in society. However, as one moves downward in the pyramid, the types of foods with cariogenic potential are less frequently recognized by parents, such as flavored milk, flavored yogurt, pasta, and fruits with a high glycemic index. This knowledge is more profound, hidden, and requires a more specific understanding of nutritional and biomedical aspects, thus referred to as esoteric knowledge (Helms, 2014)². It is important to note that parents who understand the types of food at the lower level of the pyramid can almost certainly also identify the foods at the upper level. Accordingly, this pyramid not only illustrates the distribution of knowledge but also demonstrates a gradation of complexity and depth of understanding regarding the etiology of caries based on types of food. The depth of knowledge is shaped not only by culture and experience but also by the educational background of the parents.

Furthermore, children with dental problems, particularly caries, who require further treatment by a dentist, often experience difficulties. This is due to the trauma experienced by both parents and children. Parents are traumatized by the perception that going to the dentist is painful, so they often avoid even the idea of having their teeth checked. Furthermore, children's trauma also contributes significantly to the difficulty parents face in taking their children to the dentist. Children's trauma to dental care stems from negative experiences with healthcare facilities, or from parental beliefs, often based on words or actions, that they should only use healthcare facilities for illnesses. Consequently,

children experience trauma related to the use of healthcare facilities. For this reason, some of the barriers to accessing health facilities do not stem from economic constraints but rather from limited knowledge about the proper utilization of health-care services.

CONCLUSION

Children's education encompasses all aspects related to their lives, including health. However, children are still in the learning and developmental stage, making them dependent on parents and other adults, such as teachers at school, to help regulate and fulfill their needs. Consequently, the knowledge and behaviors of people in a child's surrounding environment in providing support can significantly influence their health outcomes. Parents serve as the earliest and most fundamental educational institution for their children, equipping them with the knowledge they possess as the most relevant foundation for development and well-being. Teachers also assume a parental role while children are at school by providing guidance, knowledge, and care throughout the school day. However, the foundations and perspectives of parents and teachers regarding child health often differ, particularly in the context of children's oral and dental care.

Through the Holistic-Integrative Early Childhood Education (PAUD HI) program, teachers also provide parents with information and guidance on maintaining children's oral health. Nevertheless, parents often rely on knowledge and practices

² Esoteric knowledge is knowledge of the unusual, the exceptional, the extraordinary; knowledge of things that in some way lie beyond the familiar everyday world

rooted in their cultural beliefs, which may contribute to the persistence of dental caries among children.

Dental caries is not caused solely by external factors, such as the types of foods consumed, but also by internal factors, particularly limited knowledge regarding oral health, appropriate dental care practices, the causes of dental diseases, and the preventive and corrective actions required to address these health problems. Control over the types of foods identified by parents as sources of caries is also not strictly enforced. This is because parenting styles adopted by fathers, mothers, and other family members vary. Mothers who have a closer emotional bond with their children will strive to strictly limit the root of the problem they are experiencing. However, the parenting styles adopted by fathers and other family members, who tend to be more flexible in caring for their children, will hinder the mother's goal of maintaining a healthy diet. Furthermore, within the reach of parents, children can also become uncontrolled in consuming foods perceived as a source of dental health problems. Children's tantrums, which arise when their desires are not met, can cause parents to give in to these behaviors. This is especially true for working parents, whose children are in the workplace, who will engage in such behaviors to avoid disrupting their work.

In addition, children's tooth-cleaning practices also contribute significantly to dental problems. Although diet and oral hygiene are indeed the two primary determinants of dental health issues such as caries, there is another important factor that parents often overlook: the timing of tooth brushing. There are a series of practices that parents implement and fail to implement that can affect children's dental health from caries, such as brushing teeth during bath time and brushing teeth at night. Although children generally have the same dental hygiene habits, namely during bath time, the difference lies in the intensity of bath time. Therefore, some children have good teeth due to more intensive bath time than others.

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