

# Mothers' Knowledge Toward Oral Health of Children Under 5 Years Old

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## ABSTRACT

**Background:** Poor oral hygiene may have a mainly effect on body health in general. Childhood is an important period of life that needs to be monitored closely so that the child will grow up healthy. As a child spends majority of time with his mother, she has the key role in his healthy and proper developing. The mother's knowledges, towards the oral health care of their children acts as a significant predictor of the child's health.

**Objective(s):** This study aimed to evaluate mothers' knowledge toward oral health of children under 5 years old.

**Methodology:** A descriptive study design carried out between October 27th, 2021 to march 30th 2022 on mothers of children under 5 years at primary dental health care, to evaluate the mother knowledge about oral health. The research sample includes (310) mothers of children under five years old. They are selected by using non-probability sampling (convenience sample).

**Results:** Results shows that "Stages of tooth development and growth" observed that most of the mothers respondents had responded at a high level evaluating and assigned 4 (57.14%) items with a moderate, and 3(42.86%) items with a high levels, then followed by the second sub domain of "Role of Fluoride in Dental Health" had a moderate evaluating for 5(80.0%) items, while leftover item are assigned a high evaluation level, the third sub domain of "Children's Diet and Oral Hygiene" had a high evaluating for 3(42.86%) items, while it came to evaluate moderate for two items, and the other two were assigned at low levels. Finally, the fourth subdomain "Problems and Diseases of Teeth and Gums among Children" revealed that mothers' respondents had responded at a moderate level evaluating 6(42.86%) items, and with a high level 5(35.71%) items, while leftover items of low level are accounted 3(21.43%).

**Conclusion:** Mothers knowledge's items regarding Children's Oral Health has a evaluate at a moderate level generally assigned somewhat away from the target in which that achieving the goal of this study.

**Recommendation:** Encourage mothers to regular visit to dentist clinic and assess the children oral cavity and identify any health problems .Teach child to brush with fluoride toothpaste after eating or drinking any meal. Reduce eating sweeting and chocolate meals and make sure to brush teeth after eating them. Improving and providing health services in primary health care dental services.

**Keywords:** Mothers, knowledge, Oral health, Children under 5 years old.

## INTRODUCTION

The importance of the study lies first in the children learning the principles of mouth hygiene from their families, through the first three years of their lives. Also, families have the most important role in ensuring mouth health by instilling the habit of brushing teeth. In developed countries, although the situation of oral health has improved significantly among preschool kids in developed countries, tooth caries still exists and has a significant impact on children around the world (Alsharif et al., 2020).

In early childhood caries (ECC) was specific form of rampant tooth caries that affects the initially teeth of infants and preschool children. Untreated caries kids have consequences, including an increased dangers of developing new carious lesions, including primary and permanent teeth, as well as strong indicator of positive associations between untreated ECC and failure in its ability developing, social and intellectual delays. Poor quality of life, and its advantage related to oral health (Ashkanani, 2013).

Poor oral hygiene may have a mainly effect on body health of children as well as adults. The poor population in developed countries and more developing countries have this disease in a high and noticeable manner, and the geographical space today is understood as a functional area, the future of social actions, and a catalyst for these actions. An example of analysis of variance and the spatial prevalence of oral problems is essential for allocating assets to areas of better social deprivation, which necessitate further noteworthy steps to address these problems (Salama et al., 2020).

Parents are the key to achieving the best oral health outcomes as well as ensuring the welfare of young kids. Several ECC danger factors were associated with it, which can be broadly divided into biological and social risk factors. Social risk factors include: low education for parent, deteriorating society economic status, and decrees of health awareness about tooth disease. The family and child have to work together for maintain of good oral hygiene, and in general it has been observed that bad parental

attitudes are reflected in the deterioration of oral health in children (Gurunathan et al., 2018).

The low level of knowledge and parental belief have a direct impact on the child's mouth health; because parents are the decision maker. The child's oral health was affected by the mother's responsible on the tooth health. And that the positive behavior for mother will improve the oral hygiene of the child. This is because the position of the mother produces a modification of the child's behavior and thus has a significant impact on healthy oral hygiene practices (Pullishery et al., 2013).

Parents have the main role in promoting positive attitudes and strategies towards mouth health habits. Mothers are the immediate and reliable caregivers of children in most countries, and they have a fundamental and pivotal role in providing impact guidance and better behaviors towards oral health (Chala et al., 2018). In addition, the role of parents has a important impact for state of dental caries in kids and gum health. He emphasized the mother role in developing the mouth habits and health of their children. Although the role and responsibility in the family can change, and the mothers still played an important role in shaping the lifestyle of their kids, especially oral health (Sueyanti & Setiawan, 2021).

## METHODOLOGY

**Design of the Study:** A descriptive study design carried out between October 27th, 2021, to march 30th 2022 on mothers of children under 5 years at primary dental health care center in Al-Nasiriyah city, to evaluate the mother knowledge about children under five years oral health.

**Administrative Arrangements:** Written official permissions from the College of Nursing, University of Baghdad to the Ministry of Planning Central Statistical System for evaluate the questionnaire and give their opinion on evaluating it. another one from the College of Nursing, University of Baghdad to Thi-Qar Health Director in order to facilitate collecting data from the sample.

**Ethical Considerations:** Ethical approval was obtained from ethical committee of research in the Faculty of Nursing/University of Baghdad regarding confidentiality and anonymity of participants.

**Setting of the Study:** The study was carried out at two specialized dental centers in al-Nasiriya city.

**Sample of the Study:** The research sample includes (310) mothers of children under five years. They are selected by using non-probability sampling (convenience sample).

**Data Collection:** The process of gathering information was conducted from 20th January 2022 to March 30th, 2022. The study and the objectives were explained to the study sample by the investigator, the mothers' verbal consent has been taken and the answering of questions have been done by using interview method.

**Statistical Analysis:** The following statistical data analysis approaches were used in order to analyze and assess the results of the study under application of the statistical package (SPSS) ver. (21.0)

**RESULTS OF THE STUDY**

The current study included two parts of sociodemographic data, the first related to the children's data under five years old, and the second related to the mother's information.

Table 1: Distribution of the studied health care Child's Socio-Demographical Characteristics variables with comparisons significant

Child's (SDCv.)	Groups	No.	%	C.S. (°) P-value
Child's age groups (Per Yrs).	< 1 yr.	7	2.3	$\chi^2= 188.00$ P=0.000 (HS)
	1 _	15	5	
	2 _	66	22	
	3 _	73	24.3	
	4 _ 5	139	46.3	
	Mean ± SD	3.376 ± 1.192		
Gender	Female	146	48.7	P=0.686 (NS)
	Male	154	51.3	
Child's age when the baby teeth develop (Per months)	6 m.	145	48.3	$\chi^2= 158.13$ P=0.000 (HS)
	7 m.	33	11.0	
	8 m.	57	19.0	
	9 m.	35	11.7	
	10 m. and more	30	10.0	
	Mean ± SD	7.43 ± 1.86		
Feeding Pattern	Breastfeeding	178	59.3	P=0.001 (HS)
	Bottle-Feeding	122	40.7	
Child's Health Condition	Groups	No.	%	C.S. (°) P-value
Tooth Decay	Absent	116	38.7	P=0.000 (HS)
	Present	184	61.3	
Gingivitis	Absent	208	69.3	P=0.000 (HS)
	Present	92	30.7	
Toothache	Absent	233	77.7	P=0.000 (HS)
	Present	67	22.3	
Others	Absent	247	82.3	P=0.000 (HS)
	Present	53	17.7	

(°) HS: Highly Sig. at P<0.01; NS: Non Sig. at P>0.05; Testing based on One-Sample Chi-Square test, and Binomial test.

Table (1) shows distribution of studied child's socio-demographical characteristics variables according to their observed frequencies and percentages, as well as comparisons significant by comparing observed distribution with their expected outcomes in each variable whether they are randomly distributed or not.

Table 3: Summary Statistics of Mothers' Knowledge about Children's Oral Health

Knowledge's Items	Resp.	No.	%	MS	SD	RS%	Ev.
Part1: Knowledge's items regarding (Stages of tooth development and growth)							
1. When do primary teeth most often begin to appear in	False	95	31.7	0.67	0.47	67	H

Table 2: Distribution of the studied health care Mother's Socio-Demographical Characteristics variables with comparisons significant

Mother 's (SDCv.) and Some related variables	Groups	No.	%	C.S. (°) P-value
Mother's Age Groups	20 _ 24	58	19.3	$\chi^2= 89.10$ P=0.000 (HS)
	25 _ 29	108	36	
	30 _ 34	82	27.3	
	35 _ 39	37	12.3	
	40 _ 45	15	5	
	Mean ± SD	28.76 ± 5.42		
Educational level	Can't Read or write	5	1.7	$\chi^2= 82.667$ P=0.000 (HS)
	Can Read and Write	48	16	
	Primary School graduate	44	14.7	
	Intermediate School Graduate	26	8.7	
	Technical Diploma (Institute Graduate)	56	18.7	
	Middle School	58	19.3	
	Bachelor's	53	17.7	
	Master's	10	3.3	
Marital Status	Married	275	91.7	$\chi^2= 460.50$ P=0.000 (HS)
	Divorced	20	6.7	
	Widow	5	1.7	
Occupational	Homemaker	145	48.3	$\chi^2= 89.82$ P=0.000 (HS)
	Daily-Paid Worker (Self-Employed)	19	6.3	
	Civil Servant	136	45.3	
Number of children Groups	One	95	31.7	$\chi^2= 75.067$ P=0.000 (HS)
	Two	86	28.7	
	Three	69	23	
	Four	31	10.3	
	Five and more	19	6.3	
	Do you have knowledge or information about children's oral health ?	No	44	
Yes	256	85.3		
If the answer is "Yes", name the source of information	Non Applicable	44	14.7	$\chi^2= 234.58$ P=0.000 (HS)
	Internet	149	49.7	
	Reading	67	22.3	
	TV	24	8.0	
	Relatives	16	5.3	

(°) HS: Highly Sig. at P<0.01; Testing based on One-Sample Chi-Square test, and Binomial test.

Table (2) shows distribution of mother's socio-demographical characteristics variables, and some related variables according to their observed frequencies and percentages, as well as comparisons significant by comparing observed distribution with their expected outcomes in each variable whether they are randomly distributed or not. Results shows that highly significant differences are accounted at P<0.01 amongst observed distribution with their expected outcomes in each variable.

children ?	Don't know	4	1.3	0.46	0.50	46	M
	True	201	67.0				
2. How many primary teeth does a normal child's mouth have ?	False	107	35.7	0.45	0.50	45	M
	Don't know	55	18.3				
3. Primary teeth do not require good care because they will fall out anyway	True	138	46.0	0.45	0.50	45	M
	False	139	46.3				
4. Child starts losing primary teeth at the age of:	Don't know	27	9.0	0.45	0.50	45	M
	True	134	44.7				
5. It is important to keep primary teeth healthy because they affect the development of permanent teeth underneath.	False	156	52.0	0.80	0.40	80	H
	Don't know	26	8.7				
6. The number of primary teeth in children are complete at the age of:	True	240	80.0	0.53	0.50	53	M
	False	94	31.3				
7. Parents can help relieve teething pain by massaging baby's gums with clean fingers or offering hard teething rings.	Don't know	46	15.3	0.84	0.37	84	H
	True	160	53.3				
Part2: Knowledge's items regarding (The Role of Fluoride in Dental Health)							
1. Fluoride is an important mineral that helps prevent tooth decay by further hardening the covering layer of teeth (enamel layer).	False	15	5.0	0.62	0.49	62	M
	Don't know	34	11.3				
2. Does the toothpaste you use for your child contain fluoride ?	True	240	80.0	0.57	0.50	57	M
	False	43	14.3				
3. Fluoride helps restore minerals to the covering layer of teeth (enamel), leading to the prevention of decay:	Don't know	87	29.0	0.68	0.47	68	H
	True	204	68.0				
4. The right intake of fluoride is beneficial for healthy teeth, but an excessive intake is harmful:	False	26	8.7	0.65	0.48	65	M
	Don't know	80	26.7				
5. Fluoride prevents the growth of harmful oral bacteria:	True	194	64.7	0.60	0.49	60	M
	False	48	16.0				
	Don't know	73	24.3				
	True	179	59.7				

Continue ...

Knowledge's Items	Resp.	No.	%	MS	SD	RS%	Ev.
Part3: Knowledge's items regarding (Children's Diet and Oral Hygiene)							
1. Healthy primary teeth are essential for children to chew food properly:	False	28	9.3	0.86	0.34	86	H
	Don't know	13	4.3				
2. Primary teeth do not require good care because they will fall out:	True	259	86.3	0.14	0.35	14	L
	False	170	56.7				
3. Which of the following foods, if overeaten, can lead to tooth decay ?	Don't know	87	29.0	0.34	0.47	34	M
	True	101	33.7				
4. Which of flowing precautions can prevent tooth decay?	False	199	66.3	0.32	0.47	32	L
	Don't know	5	1.7				
5. Is it possible to align (straighten) crooked teeth into correct position without having to visit a dentist?	True	96	32.0	0.38	0.49	38	M
	False	123	41.0				
6. Your child's teeth are an important part of his body:	Don't know	62	20.7	0.89	0.32	89	H
	True	115	38.3				
7. Not brushing the teeth after eating snacks such as sweets and biscuits causes tooth decay:	False	16	5.3	0.88	0.33	88	H
	Don't know	18	6.0				
	True	266	88.7				
Part4: Knowledge's items regarding (Problems and Diseases of Teeth and Gums among Children)							
1. A visit to the dentist is only necessary when your child is in pain:	False	20	6.7	0.16	0.37	16	L
	Don't know	37	12.3				
2. What are the most common dental diseases among children?	True	243	81.0	0.84	0.36	84	H
	False	47	15.7				
3. The dentist plays an important role in the prevention of oral diseases:	Don't know	0	0.0	0.81	0.39	81	H
	True	253	84.3				
4. What are the causes of gum disease ?	False	20	6.7	0.57	0.50	57	M
	Don't know	22	7.3				
	True	170	56.7				

5. Which of the following can prevent gum disease ?	False	128	42.7	0.49	0.50	49	M
	Don't know	26	8.7				
	True	146	48.7				
6. Which of the following factors can lead to crooked teeth ?	False	185	61.7	0.30	0.46	30	L
	Don't know	24	8.0				
	True	91	30.3				
7. Tooth decay is an infectious disease (transmitted from one person to another):	False	131	43.7	0.29	0.45	29	L
	Don't know	82	27.3				
	True	87	29.0				
8. Bleeding gums when tooth brushing may be a sign of:	False	126	42.0	0.53	0.50	53	M
	Don't know	14	4.7				
	True	160	53.3				
9. The appearance of white spots on infant's mouth and gums indicates infection with one of the following pathogens:	False	137	45.7	0.45	0.50	45	M
	Don't know	27	9.0				
	True	136	45.3				

Knowledge's Items	Resp.	No.	%	MS	SD	RS%	Ev.
10. Thumb sucking and constant pacifier use can cause what is known as an open bite (the top front teeth not meeting the lower front teeth), causing a gap between the top and bottom teeth even when the child's mouth is closed	False	29	9.7	0.56	0.50	56	M
	Don't know	103	34.3				
	True	168	56.0				
11. The occurrence of an open bite in children causes difficulty in:	False	152	50.7	0.41	0.49	41	M
	Don't know	24	8.0				
	True	124	41.3				
12. Constant teeth clenching and grinding may cause erosion of the covering layer of the teeth (enamel), leading to tooth decay or even tooth sensitivity	False	20	6.7	0.72	0.45	72	H
	Don't know	63	21.0				
	True	217	72.3				
13. Constant halitosis in a child throughout the day may be an indication of oral health problems:	False	28	9.3	0.86	0.35	86	H
	Don't know	15	5.0				
	True	257	85.7				
14. Dental-related accidents that may lead to tooth breakage, cracking or complete extraction require a dental visit:	False	38	12.7	0.77	0.42	77	H
	Don't know	31	10.3				
	True	231	77.0				

Ev. : Evaluated (0.00 – 33.33) Low (L) ; (33.34 – 66.66) Moderate (M) ; (66.67– 100) High (H).

Table (3) shows a summary statistic for "Knowledge's items regarding of Mothers toward Children's Oral Health" among the sampling population.

Results shows that "Stages of tooth development and growth" observed that most of the mothers respondents had responded at a high level evaluating and assigned 4(57.14%) items with a moderate, and 3(42.86%) items with a high levels, then followed by the second sub domain of "Role of Fluoride in Dental Health" had a moderate evaluating for 5(80.0%) items, while leftover item are assigned a high evaluation level, then followed by the third sub domain of "Children's Diet and Oral Hygiene" had a high evaluating for 3(42.86%) items while it came to evaluate moderate for two items, and the other two were assigned at low levels, then finally followed by the fourth sub domain "Problems and Diseases of Teeth and Gums among Children" observed that mothers respondents had responded at a moderate level evaluating 6(42.86%) items, and with a high level 5(35.71%) items, while leftover items of low level are accounted 3(21.43%).

Table 4: Relationships between [Subject's Knowledge and Socio-Demographical Characteristics variables

Demographical Characteristics and some related variables	Knowledge		
	C.C.	Sig.	C.S. (°)
Mother Age Groups	0.102	0.530	NS
Level of Education	0.286	0.000	HS
Occupational	0.223	0.000	HS
Marital Status	0.080	0.377	NS
Number of children	0.090	0.655	NS
Source of Information	0.110	0.372	NS

(°) HS : Highly Sig. at P<0.01; NS : Non Sig. at P>0.05 ; S : Sig. at P<0.05 ; Testing are based on a Contingency Coefficient test

Table (4) shows the statistics of relationships by estimating a contingency coefficients value and testing their significant levels. Results shows that regarding to a contingency coefficient of studied factors, observed differentiated relationships between mothers' knowledge with "Education levels, and Occupation". due

to the significant levels, since significant relationships are accounted in at least at P<0.05

For summarizes of preceding results, it concluded that the overall evaluation of "Knowledge's regarding of Mothers Children's Oral Health" have assigned at a moderate level

## DISCUSSION

The study included 310 mothers of children under 5 years old who admitted to the specialized dental center. Table (1) summarizes socio-demographic data of children. The highest percentage was 46.3% (139) and aged 4-5 years. In this age most of children are completed their primary teeth eruption. Thus, the tooth decay is the most common problem that children suffer from (Heng, 2016). Which was reflect in table (1) that show the high percentage of teeth decay 61.3% (186). Approximate percentage between male and female children have been recorded (51.3% and 48.7% respectively). Concerning the Child's age when the first primary teeth erupted, 145 (48.3%) of children were at age 6 months. It was the optimal age for the first primary teeth eruption which have been recording by Manohar, & Mani, (2017) with percentage 46%.

Tooth decay was reported among 184 of children (61.3%) whereas gingivitis was noted among 92 of children (30.7%) followed by toothache 22.3% and others 17.7% Table (1). A consistent result in China by Guan et. (2021) reported that the caries prevalence was 63.1% of a total 1,291 children aged 3-5 years. Also, a cross-sectional epidemiological study in Turkey were presented by Sengül et al., (2021) showed that 73.3% of 1.156 children aged 4-5 years old revealed early childhood caries (ECC). The high percentage of teeth decay may associate with many believes and un correct practices of the mothers. the item in the third domine of the mother's knowledge regarding Children's Diet and Oral Hygiene In table (3) which include (Primary teeth do not require good care because they will fall out) showed low assessment. The same observation has been showed at the first item in the fourth domine (A visit to the dentist is only necessary when your child is in pain). These items are very important in

prevent (ECC) and maintain oral health properly. Similar study carried out in Jeddah showed approximate percentage of children dental caries (61.5%). In contrast, it is higher than 29.6% those reported in Brazil by (Sakai et al., 2008). The difference between these results, including ours could be attributed to difference in the background of patients as well as difference in the consideration of tooth decay, as tooth decay was identified through the questionnaire only.

Regarding to the Mother's Socio-Demographical Characteristics variables in table (2). The age group (25-29) years included 108 (36%) of mothers. The comparable high percentage age group have been done by Rossato et al., (2021) who studied the Mothers Knowledge and Practices of the Infant Oral Health Care in First Year of children's Life and found that 53.9 % of mother at age (19-29). Almsury, (2022) studied the Mothers Health Mouth Care to Child Under Five Years in Iraq and found that (44.5%) of mothers at age (20-29) years.

In respect to education level the percentage were distributed among the different educational levels, and the lowest percentage was among women who are don't read and wrote 1.7%. the majority of mothers was married 91.7%, and 48.3% were homemaker.

Regarding to the number of children in the family, it ranged between one child 31.1%, tow child 28.7%, three child 23% and up. The oral and dental health of children generally in our societies have the second priority for parents, and decrease with the increasing numbers of children, especially in families with limited income.

The finding of this study regarding to the most accessible source of information 256 (85%) of mothers received their information from the internet. The same source of information represents the highest percentage in study reported in Pakistan and account 53% (Mubeen & Nisar, 2015). Also, studies by (Moslemi et al., 2017). in Iran, who reported that 53% and 77% of mothers received their information from electronic media and TV programs, respectively.

However, it is in contrary to Moroccan mothers in the study by Chala et al. (2018) was showed that the main sources of information were by mothers were family members and other mothers. On the other hand, studies detected different main sources of mother's information's which were found to be from relative (72%) to some extant from different types of mass media (Salama et al., 2021). About 51 (20.9%) of information from the dentist, 81 (33.2%) from other health professionals while, 54 (22.1 %) and 34 (13.9 %) got the health information from mass media and school sessions respectively (Duguma & Wassihun, 2019).

The mothers' knowledge about children oral health in table (3) included four sub domine showed moderate overall score value for each one.

The first sub domain "Stages of tooth development and growth" reveled moderate assessment in four items (57.14%) and a high-level evaluation in three other items (42.86%). Most of the mothers (67%) were answered correctly about her child age of primary tooth eruption. The mother also records that healthy primary tooth are very important to develop permanent teeth and the parents' role in relieve teething pain by using clean finger or teething ring (80% and 83.7% respectively). The leftover items were at a moderate level. These results supported by Abduljalil, & Abuaffan, (2016) who found that 76.6% of mothers agreed about the importance of primary teeth. Also 91% Saudi mothers agreed that the baby teeth are important for child's general health (Al-Zahrani et al., 2014). Khan et al., (2022) exhibit that (55.1%) participants out of 572 Saudi mothers knew that 1st primary tooth erupts at the age of 6 months, and 65.4% reported by (Getaneh et al., 2018). In contrast, (Rajanna et al., 2019) in Bangalore City reported that 79.4% of mothers did not have any knowledge regarding the time of eruption of their child's deciduous teeth.

The second sub domain about "Role of Fluoride in Dental Health", showed that Most of the mothers (68%) know about the fluoride role in restore minerals to the enamel layer and preventing

decay. The rest of the items show moderate level responses. This finding was consistent with previous studies by Abduljalil, & Abuaffan, (2016) in Sudan who reported that 64.7% of the mothers supported the role of fluoride in preventing tooth decay. Chala et al. (2018) also reported 60.9% of mothers were aware that fluoride beneficial in the caries prevention. Duguma, & Wassihun, (2019) in their study 220 (76.6%) stated that fluoride tooth pest prevents dental caries. Also great majority of Saudi mothers (90.1%) agree that the fluoridated toothpaste helps in preventing tooth decay (Al-Zahrani et al., 2014). Similarly, Chala et al. (2018) showed that 253 (53.3%) of mothers believed that primary teeth are not necessary and that more care should be taken for permanent teeth, 285 (60.9%) of the mothers were aware that fluoride has a beneficial effect in prevention.

Contrary to what we have been found, Mubeen & Nisar (2015), reported that 39.1% heard about fluoride and 13.9% stated that fluoride can strengthen teeth and prevent caries. Whereas, Salama et al. (2021) indicate that only 45% of participant mentioned that fluoride supplementation has a role in dental protection.

The third sub domain of "Children's Diet and Oral Hygiene" in this study, showed that a good knowledge about the statement "Healthy primary teeth are essential for children to chew food properly", " Your child's teeth are an important part of his body" and " Not brushing the teeth after eating snacks such as sweets and biscuits causes tooth decay" 86.3%, 88.7% and 87.7% respectively. The other two low level assessment were in the items Primary teeth do not require good care because they will fall out 14.3% and Which of flowing precautions can prevent tooth decay 32%.

In consistent with previous studies Abduljalil, & Abuaffan, (2016) found that almost all mothers (99%), answered correctly when asked about the effect of frequent exposure to sweets and sticky food on dental health, the importance of frequent dental visits (99%), the effect of oral health on general body health (95.2%). Duguma, & Wassihun, (2019) reported that 259 (90%) revealed the importance of avoidance meals for oral health. Another study found that 85.8% of parents were aware that sugary snacks and juices are causes of dental caries and 72.5% agrees that using fluoridated toothpaste will help in prevention of tooth decay in addition. some parents recognized very well that sugary food is the main factor in caries development and that fluoride plays a role in caries prevention and, 76.7% of parents believe that sugary food has a direct contribution to dental caries (Salama et al., 2020). A diet particularly rich in sugars promotes the formation of Early Childhood Caries ECC (Vozza et al., 2017). The excessive sugar intake could have negative influences on the growth of the child, with an increased risk of caries (Paglia, 2019).

Abdat, & Ramayana, (2020) in their study found that all mothers (100%) knew that toothbrushing could prevent oral health problems, while 41 mothers (93.1%) knew that frequent consumption of sweet, sticky, and acidic food could cause tooth cavities. Approximately 96% of the mothers knew that teeth brushing protects against dental caries, and also 85 and 80% of them knew that sugary diet and soft drinks (respectively) are risky for dental caries. Overall, 82.6% reported that adequate frequency of teeth brushing is twice daily (Salama et al., 2021). In contrary to the present study Salama et al. (2020) found that high percentage of participant with college and higher education disagree with the statement "Cavities in baby teeth don't matter since they will fall out anyway" because mothers with high level education are more aware about the importance of primary teeth in child health.

The fourth sub domain "Problems and Diseases of Teeth and Gums among Children". revealed high-level assessment in five statements included the most common dental diseases among children 84.3%, role of the dentist in preventing oral diseases 81.0%, Constant teeth clenching and grinding lead to the tooth decay or tooth sensitivity 72.3%, halitosis in a child throughout the day may be an indication of oral health problems 85.7%, and Dental-related accidents require a dental visit 77.0%. In spite of the

mothers' knowledge about the important role of the dentist in preventing of the oral diseases (81% response correctly), they showed 78.3% un correct answer about visiting the dentist when child only in pain, and this will negatively affect on oral health of children. Other two low assessment were about factors related to the crooked teeth 30.3% and Tooth decay is an infectious transmitted disease 29.0%. the leftover statements were moderate in their responses.

Salamaa et al. (2020) reported that 72.7% were aware that most common cause of bleeding gum is gingival disease, and 62.8% indicate that teeth brushing, and flossing protect against bleeding gums. Approximately 59% of them reported that dental caries may be due to oral bacterial infection. Bad breath is so common and caused by a collection of plaque and is a symptom of gum disease and tooth decay as well as being uncomfortable and. It is more important for parents to aware children from good brushing practice for the prevention of early childhood caries and gum diseases like gingivitis in children (Mubeen & Nisar, 2015). Khan et al. (2019) show that 39 (31.5%) mothers think tooth decay is the most common dental disease of children, 33.9% mothers think Bleeding from gums is problem of children oral health, and 23 (18.5%) of mothers do not know about the most common dental disease in the children.

In contrast, Abduljalil, & Abuaffan, (2016) found that the importance of frequent dental visits has been reported in (99%) of the mother's response. Salama et al. (2020) found that ~59% of mothers knew that dental caries may be due to oral bacterial infection, which was different to results of Dhull et al. (2018) who concluded that 77.8% did not agree that caries causing by bacteria is transferred from mother to the child. The great difference in mothers in various studies' knowledge may be related to difference in education level of participants. This finding generally supported that children's oral health is not apriority in primary dental care centers in our country.

Finally, there is a significant relationship between mother's knowledge and Education levels at  $P < 0.000$ , and Occupation  $P < 0.003$  table (4). in consistent with current study Mubeen & Nisar (2015) found a significant relationship between mothers' knowledge, and educational level. Similar significant relationship represented by Abduljalil, & Abuaffan (2016) between mothers' knowledge and occupation. While, Alzaidi et al. (2018) indicated that there is no significant relevant rapport between mother's practice and education and occupation.

A similar finding was also conducted by Ashkanani and Al-Sane (2013) who stated that better knowledge and practice was in relation with higher educational level.

Concerning to the socioeconomic disparity remains an important point in health research because of its associated with a variety of negative health outcomes (Pickett & Wilkinson, 2015). In addition, Socio-economic factors were the main predictors of KAP scores (Chala et al., 2018).

## CONCLUSION

Knowledge's items regarding of Mothers toward Children's Oral Health has a evaluate at a moderately level. Also, considerable relevant are accounted in at least at  $P < 0.05$  between mother's knowledge and Education levels, and Occupation.

**Recommendations:** Mothers have a tremendous amount of influence in the lives of their children in adopting correct and consistent behavioral habits. Therefore, raising awareness among mothers about the importance of oral health for children reduces risk factors for oral health problems. Encourage mothers to regular visit to dentist clinic and assess the children oral cavity and identify any health problems. Teaching child to brush with fluoride toothpaste after eating or drinking any meal Reduce eating sweeting and chocolate meals and make sure to brush teeth after

eating them. Improving and providing health services in primary health care dental services

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