

RESEARCH ARTICLE

Mothers' attitude and practices toward oral health of children under 5 years old at Al-Nasiriya city

Fatimah Assad Jumaa¹, Salwa Ghazi Turki², Khatam Mutasher Hattab³

1. MSN, Department of Paediatric Health Nursing, University of Baghdad, College of Nursing, Baghdad, Iraq.
2. PhD, assistant Professor, Department of basic science, University of Baghdad, College of Nursing, Baghdad, Iraq.
3. PhD, Professor, Department of Paediatric Health Nursing, University of Baghdad, College of Nursing, Baghdad, Iraq.

Corresponding author: Fatimah Assad Jumaa

Email: fatma.Asaad1204b@conursing.uobaghdad.edu.iq

ABSTRACT

Background: It is known that pre-school children are an innocent group, as attention and care of oral health is given the necessary priority to determine the state of oral health for future generations. Generally, the kids in the age less of five spend the all-time with parents and guardians, especially mothers, even they go to the nurseries, it is in these early years that 'initial socialization' and through which early childhood habits are acquired.

Objective(s): This study aimed to evaluate mothers' attitude and practices toward oral health of children under 5 years old at al-Nasiriya city.

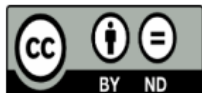
Methodology: A descriptive study design carried out between October 27th, 2021 to March 30th 2022 on mothers of children under 5 years at primary health care center in Al-Nasiriyah city, to evaluate the mother attitudes and practice about children under five years oral health. The research sample includes (310) mothers of children under five years. They are selected by using non-probability sampling (convenience sample).

Results: Results observed that all mothers had responded at a moderately level concerning the attitude aspect. And that of the practice results observed that mothers' respondents had responded at a low level, while it came to evaluate two items for each a moderate, and high levels.

Conclusion: There is a connection between mothers' attitude and practices Occupation, and Source of Information.

Recommendation: Encourage mothers to regular visit to dentist clinic and assess the children oral cavity and identify any health problems.

Keywords: Mothers, Attitude, Practice, Oral health, Children, Under 5 years old.



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INTRODUCTION

Oral and dental health is an important and essential part of physical care and welfare, and if the mouth is not cleaning, it may be effect on tooth as well as disease of gum. It is considered to maintain the health of teeth and gums. It's a lifelong commitment (Frank, 2019).

It is well known that mouth health is the basic section of public health, because the mouth cavity is the entrance to the body of human, any destroy to mouth health can appear not only in the mouth cavity, but my be appear in the other parts for body of human, because the prevention is better than cure, and preventive procedures are implemented into different sections for society (Singh et al., 2021).

It is necessary to closely monitor childhood until the child grows up in good health, which is an important period of life, and the mother is a role model for the child, because he spends most of the time with her, and becomes the model primary for children. A mother's health beliefs and attitude toward taking care of the oral health of her children are an important indicator of the child's health (Pawar et al., 2018).

The early stage of children's development, especially in preschool age, is a crucial time for learning oral hygiene behaviors and methods. In early childhood if a child learns and maintains oral hygiene skills, these skills become an established mouth habit and are less likely change (Rajab & Ibrahim, 2016).

It is known that pre-school children are an innocent group, as attention and care of oral health is given the necessary priority to determine the state of oral health for future generations. Generally, the kids in the age less of five spend the all-time with parents and guardians, especially mothers, even they go to the nurseries, it is in these early years that 'initial socialization' and through which early childhood habits are acquired (Fernando et al., 2013).

Definition of (ECC) is about existence one or more decayed, loosing or filled tooth surfaces at any initially teeth in kid in age of 71 months or less. Various terms for ECC are used such as, bottle nursing of mouth, baby bottle of tooth decay, syndrome of nursing bottle, caries of bottle mouth, caries of nursing, caries of rampant tooth and others. It is used in the definition and diagnosis of ECC in all over the world (Duguma & Zemed 2019).

METHOD

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 health care center in Al-Nasiriyah city, to evaluate the mother attitudes and practice 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

Mothers and Children's Sociodemographic Data

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 (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.

Attitude's items regarding Children's Oral Health:

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

Results observed that all mothers had responded at a moderately level and assigned 6 (100%) items.

For summarizes of preceding results, it could be concluded that "Attitude's items" regarding of mothers toward their children's oral health generally assigned somewhat away from the target in which that achieving the goal of this study.

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 \pm SD	3.376 \pm 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 \pm SD	7.43 \pm 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 (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	x 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	x 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	x ² = 460.50 P=0.000 (HS)
	Divorced	20	6.7	
	Widow	5	1.7	
Occupational	Homemaker	145	48.3	x 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	x 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	14.7	P=0.000 (HS)
	Yes	256	85.3	
If the answer is "Yes", name the source of information	Non Applicable	44	14.7	x 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 (3): Summary Statistics of Mothers' Attitudes toward their children's Oral Health

Attitudes 's items	Response	No.	%	MS	SD	RS%	Ev.
1. It is necessary to take a baby to the dentist on a regular basis.	Always	91	30.3	1.87	0.68	62.30	M
	Sometime s	158	52.7				
	Never	51	17.0				
2. Mothers need to clean their baby's teeth.	Always	79	26.3	2.00	0.72	66.70	M
	Sometime s	143	47.7				
	Never	78	26.0				
3. Baby's teeth should be cleaned after every meal.	Always	77	25.7	2.00	0.72	66.70	M
	Sometime	145	48.				

	s		3				
	Never	78	26.0				
4. Brushing and flossing your baby's teeth helps prevent tooth decay.	Always	85	28.3	1.99	0.75	66.30	M
	Sometimes	133	44.3				
	Never	82	27.3				
5. Babies should have their teeth brushed by an adult until they start preschool.	Always	90	30.0	1.95	0.74	65.00	M
	Sometimes	135	45.0				
	Never	75	25.0				
6. Good oral health is linked to good overall health.	Always	106	35.3	1.90	0.78	63.30	M
	Sometimes	117	39.0				
	Never	77	25.7				

Ev. : Evaluated (33.33 - 55.55) Low (L) ; (55.56 - 77.77) Moderate (M) ; (77.78 - 100) High (H).

Practice's items regarding Children's Oral Health:

Table (4) shows a summary statistic for "Practice's items regarding of Mothers toward Children's Oral Health" among the sampling population of Nasiriya city.

Results observed that mothers' respondents had responded at a low level

4(50.0%) items, while it came to evaluate two items for each a moderate, and high levels.

For summarizes of preceding results, it could be concluded that " Practice's items" regarding of mothers toward their children's oral health generally assigned incomplete away from the target in which that achieving the goal of this study.

Table (4): Summary Statistics of Mothers' Practices toward their children's Oral Health

practices' items	Response	No.	%	MS	SD	RS%	Ev.
1. When was your child's first visit to the dentist, apart from the current visit ?	False	182	60.7	0.39	0.49	39	M
	True	118	39.3				
2. When do you take your child to the dentist ?	False	263	87.7	0.12	0.33	12	L
	True	37	12.3				
3. When did you start brushing your child's teeth?	False	209	69.7	0.3	0.46	30	L
	True	91	30.3				
4. How often do you brush your child's teeth ?	False	194	64.7	0.35	0.48	35	M
	True	106	35.3				
5. When do you change your child's toothbrush ?	False	226	75.3	0.25	0.43	25	L
	True	74	24.7				
6. What substance do you clean child's teeth with?	False	76	25.3	0.75	0.44	75	H
	True	224	74.7				
7. Do you use a fluoride toothpaste and toothbrush when cleaning teeth ?	False	202	67.3	0.33	0.47	33	L
	True	98	32.7				
8. What type of movement do you use when brushing your child's teeth ?	False	47	15.7	0.84	0.36	84	H
	True	253	84.3				

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

DISCUSSION

The study included 310 mothers of children under 5 years old who admitted to the

specialized dental center at Nasiriya city. 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%.

Regarding to 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). Almzury, (2022) studied the Mothers Health Mouth Care to Childe 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.

Mothers attitude regarding Children's Oral Health:

In the present study all mothers' attitude items had a moderately evaluation and assigned (100%) in table (3). A purposive sampling method of 200 mothers have under five years children exhibit a similar moderate favorable attitude (90.5%) (Shalini et al., 2020). On the other hand, a cross-sectional was conducted of Mother in Morocco by (Chala et al.,2018) revealed un favorable attitudes and practice toward children oral health. Also among 422 mothers of preschool children in Mumbai, India showed that 53.8% exhibited poor attitude (Jain et al., 2014). Other researchers found that 37.40% of mothers had a good attitude about preschool children oral health (Sehrawat et al., 2016). In contrary, a positive attitude 98.2 % have record towards care of infant's teeth, and 63% of mothers brush their infant's mouth twice daily (Shinde et al., 2018).

The better level of KAP about oral hygiene among mothers is directly related to better oral health and less chances of dental caries among their children (Al-Jaber et al., 2021). A systemic

review also reported that children of mothers with poor KAP had higher risk of dental caries (Iqbal et al., 2022).

Mothers practice regarding Children's Oral Health:

According to the mothers' practice about children oral health in table (4). The finding revealed that mothers with low-level responses in 4 items (50.0%), while the rest of the responses was divided equally for each a moderate, and high levels.

The improper answered towards oral health practices were high regarding to the time of the visiting dentist 87.7%, child age when he brushed his teeth for the first time 69.7%, when does the mothers changing child toothbrush 75.3%, and about using fluoride toothpaste and toothbrush in cleaning teeth was 67.3%.

Concerning brushing Abduljalil, & Abuaffan, (2016) found that 34.3% of mothers recorded that brushing of children teeth under the age of two years was not done at all, and 50.6% brush teeth only once a day. Whereas, Mubeen, & Nisar, (2015) showed that only 14% respondents were replaced their child's tooth brush after 3 months. Regarding use of fluoridated toothpaste 37.7% of mothers conformed that they are using it.

In line with the current study Alzaidi et al., (2018) found that 63.5% of mothers had inadequate level of practice about oral health. Concerning to the dental visit Abdat, & Ramayana (2020) showed (2020that 27 mothers (61.3%) did not take their children to the dentist. a study found comparatively average level of knowledge, attitude and practice of mothers to children oral health due to which there were presence of oral diseases in children (Khan et al., 2019).

The two positive items response by mother were the using of the toothpaste in cleaning teeth 74.7% and the correct movement that the mother used to brush her child's teeth 84% these results are consistent with finding by Duguma, & Wassihun, (2019) who reported that (81.0%) of mothers preferred toothbrush and tooth paste to clean their child's teeth, and about 35.2% of all mothers take their children to dentist within the last one year also (35.5%) reported that they brush their children's teeth occasionally and (33.8%) once per day, while 88(30.7%) mothers said that they brush their children's teeth twice.

CONCLUSIONS

Mothers have modrate unufeciant attitude and practices towerd pre-school oral health with a connection between mothers' attitude and practices Occupation, and Source of Information.

RECOMMENDATIONS

Encourage mothers to regular visit to dentist clinic and assess the children oral cavity and identify any health problems. Because early diagnosis of dental problems is an essential step to prevent a worsening of the oral health condition. Improving and providing health services in primary health care dental services.

ETHICAL CONSIDERATIONS COMPLIANCE WITH ETHICAL GUIDELINES

This study was completed following obtaining consent from the University of Baghdad.

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AUTHOR'S CONTRIBUTIONS

Study concept, Writing, Reviewing the final edition by all authors.

DISCLOSURE STATEMENT:

The authors report no conflict of interest.

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