

EVALUATION FOR MOTHERS' PRACTICES OF CHILDHOOD TONSILLITIS

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Abstract

Background: the inflammation of the tonsils is known as Tonsillitis; it is a well-known clinical condition that an infection of either virus or bacteria. It significantly affects children especially. **The aim of the present study** was to evaluate the practices employed by mothers in managing their children's tonsillitis and to find the relationship between mothers' practices of childhood of tonsillitis and some variables.

Methods: A cross section study design was adopted in order to achieve the objectives of study. data collection began from 17th September 2023 until 30th January 2024. Non probability a "purposive sample" of (160) mothers was selected. the sample of this study comprised of (160) mothers with children diagnosis with tonsillitis by physician, all the (160) mothers attend (5) PHC in Al Najaf city, during the time of data collection, the researcher develops a structured questionnaire to collect information.

Results: The study found the study sample overall assessment of was as "good" practice (58.7%) making it the highest percentage among the studied participants, (31.9%) fair practice, and (9.4%) had poor practice that is the lowest. and it had been found that a significant associated with (living in overcrowded house) (0.029), and highly significantly associated with (Type of family) (P=0.001).

Conclusion: The study concludes the majority of mothers was (85%) housewife. and also shows that (81.9%) of the affected children were from larger families. mothers' practices in dealing with childhood tonsillitis, the highest percentage has good practices.

Key words: Childhood Tonsillitis, Practice of Knowledge, Mothers, children.

1.1 Introduction

In the lateral oropharynx, tonsils are either facial or palatine. Known as the palatine arches or pillars, they are situated between the palatopharyngeal arch posterior and the palatoglossal arch anteriorly. The tonsils, like the adenoids (nasopharyngeal tonsil), tubal tonsil, and lingual tonsil, are made of lymphatic tissue and form part of the way layer's ring (Masters & Zeff, 2020).

Tonsillitis is defined as an inflammation of the tonsils, is a typical clinical illness caused by viral or bacterial infections. It affects a significant percentage of the population especially children (Alrayah, 2023).

b-hemolytic *Streptococcus* is the main cause of the bacterial tonsillitis, known as strep throat and *Staphylococcus aureus* and other bacteria came after, The more frequent tonsillitis symptoms are pain when

swallowing, red swollen tonsils, a sore throat, headache, fever, cough, chills, tiredness, pain in the neck or ears and swollen lymph nodes in the neck and the less known symptoms include stomach ache, vomiting, nausea, bad breath, furry tongue, and change in voice and opening of mouth difficulty (Bukhari et al., 2019).

In children, males are more likely than females to have tonsillitis, and those who do usually fall between the ages of 5 and 15; however, children under the age of two are rarely affected. Tonsillitis is the most common condition in the pediatric population, accounting for 1.4% of all otorhinolaryngological problems (Al-Hussaini et al., 2016).

The prevalence of bacterial tonsillitis, specifically group A beta-hemolytic *streptococci* (GABHS), is 15% to 30% of children with sore throat and 5% to 15% of

adults with sore throat but can be much higher depending on the epidemiological situation (**Al-Masoudi, 2016**).

According to the Al-Najaf Health Directorate, number of tonsillitis cases were (8623) in Al-Najaf south district while (9081) in Al-Najaf north district at 2022 (**Al-Najaf Health Directorate, 2023**).

The tonsils are so strategically significant since they serve as the body's first line of defense against serious pathogenic attacks, like those caused by bacterial infections. Conversely, tonsillitis is the most prevalent pathogen-related illness, second only to nasal pharyngeal infections. Every year, millions of illnesses occur globally during all climatic seasons. Although they are more common between November and April, infections can occur at any time of the year.

(**Pambuk, 2018**).

However, due to variations in certain etiologies and risk factors, the proportion of mild to severe disease differs between high- and low-income nations (**Thomas and Bomar, 2021**).

2. Methodology

2.1. Design The Study

A cross section study design was adopted in order to achieve the objectives of study. It began from 17 of September 2023 until 30 of January 2024.

2.2. Ethical Considerations

This is most basic principle before the investigator starts to collect the data of samples to keep the client's value and Self-esteem The investigator accomplished this agreement from the ethical committee at Al-Furat Al-Awsat Technical University / College of Health and Medical Technologies. The investigator assured to keep the client's data confidential, and use this date for present study only. He should clarify the objectives of this study to each member without impacting in routine visiting, and care furthermore to overhead, the investigator told each sample that this is

voluntary work, and they can leave any time even the interview procedure is not finished.

2.3. Administrative Arrangement

Prior to the gathering of data, official administrative authorizations for the research were obtained.

1 - The researcher obtained approval from College of Medical and Health Technologies/ Department of Community Health Technology in Kufa.

2 - Official permission was obtained from Najaf Health Directorate / the Human Development and Training Center/ Unit of Research.

3 - An official permission was obtained from Northern Najaf sector and southern Najaf sector in Najaf Governorate.

4 - Finally, without interfering with the participants' regular visits and treatment, the researcher verbally agreed with them to participate in the study.

2.4. Setting of the Study

This study was conducted in Al-Najaf city / Al-Najaf Al-Ashraf Health Directorate primary health care's centers, situated roughly 160 kilometers southwest of the capital, Baghdad (**Hussain et al., 2021**).

2.5. Study Sample

Non probability a "purposive sample" of (160) mothers was selected. the sample of this study comprised of (160) mothers with children diagnosis with tonsillitis by physician, all the (160) mothers attend (5) PHC in Al Najaf city, during the time of data collection.

These PHCC were selected as (20%) out of the target population by simple random sampling technique (lottery methods), as shown in figure (3-1)

Table (2-1): purposive sample from primary health care sectors in AL-Najaf city.

No.	Sectors	PHCs	population	No. of sample
1	The Northern Najaf PHCCs sector	Al Oruba	45968	38
		AL Yarmouk	37924	36
		AL Wafaa	26984	24
2	The southern Najaf PHCCs sector	Khawla zwain	43540	40
		AL Karama	29211	22

Total	2	5	160
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2.6 Inclusion and Exclusion Criteria

2.6.1. Inclusion Criteria

- All mother with children are diagnosis with tonsillitis by physician aged between 2 to 12 years visiting primary health care.
- Mother with children who were able to offer verbal consent and were willing to participate in this study.

2.6.2. Exclusion Criteria

- Mothers who are provide incomplete information during filling out a questionnaire.
- child age is less than 2 years or older than 12 years.

2.7. Data Collection Instrument (Tools)

To collect information about practices of mothers with children diagnosis with tonsillitis the researcher develops a structured questionnaire. The questionnaire was consisting of (two) parts as follows:

Part 1: socio-demographic variables for mother

Part 2: Contains many questions about practice for mother about tonsillitis.

2.8. Scoring of Practices about mothers with children diagnosis with tonsillitis

Determination of a grades of mothers 'practices were divided according the following score; a score $\geq 75\%$ was considered as good, a score from 50-74% was considered as fair, a score less than medium ($< 50\%$) was considered as poor (Saadoon *et al.*, 2022).

Practices Score:

This forma of 12 questions regarding practices about mothers with children diagnosis with tonsillitis, there were three options for each question: always, never and sometimes. Three points were awarded for a correct answer, two points for sometimes answer and one point for incorrect answer; this scoring is widely used in

analysis of practices questionnaires that use 3 points Likert's scales. Then the evaluation of practices categorized into three categories: good, fair and poor.

Number of questions: 12

Minimum=12 , Maximum=36 , Medium=24

A score of (≥ 30) good practices, A score of (24-29) fair practices, A score of less than (< 24) poor practices

2.9. Statistical Analysis:

The SPSS version 26 software was used to enter and analyze the data, One sample Chi-Square test, Pearson's Chi-square test and Fisher's exact test for measure of association. Significance considered when the P value was less than 0.05 or equal (Daniel & Cross, 2018).

3. Results

3.1 Demographic Characteristics for mother

Table (4.1) show the demographic characteristics of the mothers where the current study was conducted on 160 of the mothers with the mean \pm SD of their ages was 31.27 ± 8.27 years ranging from 16 to 55 years. The age group of 20 to 29 years old had the highest percentage (40.6%), while the age group > 50 years had the lowest percentage (4.4%). For concerning the education level of mother, Mothers with only an elementary education made up the largest percentage (36.7%) of the sample. Related to the occupation of mother, the majority of mothers was housewife (85%). The study also shows that the majority (81.9%) of the affected children lived in larger families (more than 5) also more than half (55%) lived in nuclear families, and more than half of families had barely sufficient income (60%), and most of them (48.75%) have three rooms in the house. The majority of the studied sample (90.6%) were living in urban areas. This study also showed that most families living in overcrowded house (69.7%), Regarding the smoking status of mothers, the highest percentage (79.4%) was passive smoking.

Table (3-1): Demographic characteristics of the mother

Items	No.	%
Age (years)	<20	8
	20-29	65
	30-39	59
	40-49	21
	50 and above	7

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	Total	160	100%
Residence	Urban	145	90.6
	Rural	15	9.4
	total	160	100%
Educational level	Illiterate	34	21.2
	Primary school and less	59	36.9
	Secondary school	47	29.4
	Institute and above	20	12.5
	total	160	100%
Occupation of mother	Housewife	136	85
	Employee	24	15
	total	160	100%
Type of family	Extended	72	45
	Nuclear	88	55
	total	160	100%
Family income	Sufficient	29	18.12
	Barely Sufficient	96	60
	Insufficient	35	21.88
	total	160	100%
Number of the families in the house	One	88	55
	Two	39	24.4
	Three and above	33	20.6
	total	160	100%
Number of the individuals in the house	3 and less	1	0.6
	4-5	28	17.5
	>5	131	81.9
	total	160	100%
Number of rooms except chicken	One	2	1.25
	Two	32	20
	Three	78	48.75
	Four and above	48	30
	total	160	100%
Living in overcrowded house	Yes	111	69.4
	No	49	30.6
	total	160	100%
Consanguinity marriage	1 st degree	33	20.6
	2 nd degree	35	21.9
	3 rd degree	24	15
	No relationship	68	42.5
	total	160	100%
Smoking status	Passive	127	79.4
	Active	1	0.6
	No smoking	32	20
	total	160	100%

3.2. practice of mother regarding tonsillitis

Table (4-7) demonstrated the Responses of mothers according to their practices regarding tonsillitis, in which the majority of them 91.9% used the effectiveness of hygiene in preventing tonsillitis, as well as 85.6% of mothers give warm liquids to their children when they get tonsillitis and less than half 37.5% gargle with warm

salt water. And 76.2% of them take rest in bed, approximately less than half 40.6% of children brush their teeth daily frequently, and about only 35.6% treating decayed teeth by dentist. Related to the temperature of the child, 66.9% of the study sample regularly check the temperature of the child when they get sick, and the majority of the mothers 91.2% said they use cold compresses to reduce body temperature. And

about 83.1% of the mothers Promoting a balanced diet and good nutrition to support a strong immune system to their children when they get tonsillitis. And approximately 87.5% of the study sample take their children to the health institutions or visit a doctor, and

about more than half 55.6% Avoiding exposure to tobacco smoke to their children, and about 75% of mother Teaching good respiratory hygiene, like covering their nose and mouth when sneezing or coughing to their children to avoid get them sick.

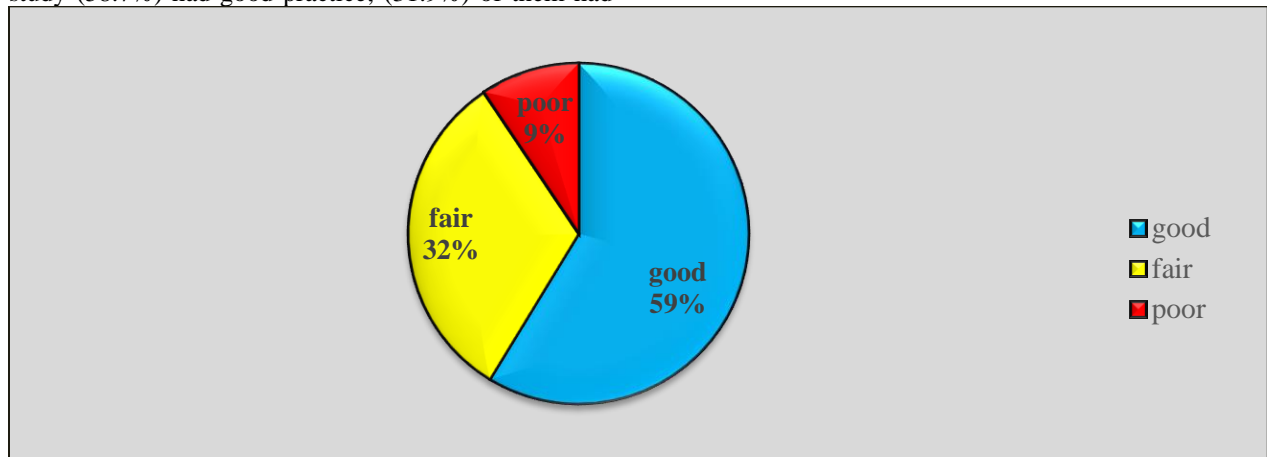
Table (3-2): Responses of mothers According to their practice Regarding tonsillitis

Items	Always		Sometimes		Never		Mean of score	Evaluation
	No.	%	No.	%	No.	%		
Used the effectiveness of hygiene in preventing tonsillitis	147	91.9	1	0.6	12	7.5	2.84	Good
Drink warm liquids	137	85.6	3	1.9	20	12.5	2.73	Good
Gargle with warm salt water	60	37.5	5	3.1	95	59.4	1.78	Fair
Bed rest	122	76.2	11	6.9	27	16.9	2.59	Good
Frequency of teeth brush per day	65	40.6	24	15	71	44.4	1.96	Fair
Treating decayed teeth	57	35.6	21	13.1	82	51.3	1.84	Fair
Regularly check the temperature of the child	107	66.9	10	6.3	43	26.8	2.40	Good
Use cold compresses to reduce body temperature	146	91.2	6	3.8	8	5	2.86	Good
Promoting a balanced diet and good nutrition to support a strong immune system.	133	83.1	6	3.8	21	13.1	2.70	Good
visit the health institutions or a doctor	140	87.5	11	6.9	9	5.6	2.82	Good
Avoiding exposure to tobacco smoke	89	55.6	1	0.6	70	43.8	2.12	Fair
Teaching good respiratory hygiene, like covering their mouth and nose when coughing or sneezing.	120	75	12	7.5	28	17.5	2.58	Good

Good (mean of score 2.34 - 3), Fair (mean of score 1.67-2.33), Poor (mean of score 1-1.66), cut off point (0.66).

Regarding the total assessment of mother's practices about tonsillitis the largest proportion of the group under study (58.7%) had good practice, (31.9%) of them had

fair practice and the lowest percentage (9.4%) had poor practice as shown in figure (3-1).



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Figure (3-1) Overall practice score of tonsillitis among mothers.

3.3. Relationship between mother's practice about tonsillitis and their demographic data.

Statistically, table (4-8) shows the relationship between the practices of mothers with their socio-demographic characteristics. It had been found that a

significant associated with (living in overcrowded house), and highly significantly associated with (Type of family), while there is no significant association with the remaining variables.

Table (3-3): Association between mother's practice about tonsillitis and their demographic data.

Demographic characteristics		Poor		Fair		Good		Totals	P- value
		No.	%	No.	%	No.	%		
Age (years)	<20	0	0	1	12.5	7	87.5	8	0.351
	20-29	4	6.2	29	44.6	32	49.2	65	
	30-39	9	15.3	17	28.8	33	55.9	59	
	40-49	1	4.8	4	19	16	76.2	21	
	50 and above	1	14.3	0	0	6	85.7	7	
	Total	15		51		94		160	
Residence	Urban	15	10.3	47	32.4	83	57.3	145	0.318
	Rural	0	0	4	26.7	11	73.3	15	
	Total	15		51		94		160	
Educational level	Illiterate	1	3	8	23.5	25	73.5	34	0.220
	Primary school and less	7	11.9	22	37.3	30	50.8	59	
	Secondary school	5	10.6	17	36.2	25	53.2	47	
	Institute and above	2	10	4	20	14	70	20	
	Total	15		51		94		160	
Occupation of mother	Housewife	14	10.3	44	32.4	78	57.3	136	0.553
	Employee	1	4.2	7	29.2	16	66.6	24	
	total	15		51		94		160	
Type of family	Extended	3	4.2	35	48.6	34	47.2	72	0.001**
	Nuclear	12	13.6	16	18.2	60	68.2	88	
	total	15		51		94		160	
Family income	Sufficient	2	6.9	7	24.1	20	69	29	0.764
	Barely Sufficient	10	10.4	31	32.3	55	57.3	96	
	Insufficient	3	8.6	13	37.1	19	54.3	35	
	total	15		51		94		160	
Number of the families in the house	One	12	13.6	16	18.2	60	68.2	88	0.145
	Two	1	2.6	17	43.6	21	53.8	39	
	Three and above	2	6.1	18	54.5	13	39.4	33	
	total	15		51		94		160	
Number of the individuals in the house	3 and less	0	0.0	0	0.0	1	100.0	1	0.174
	4-5	5	17.9	7	25.0	16	57.1	28	
	>5	10	7.6	44	33.6	77	58.8	131	
	total	15		51		94		160	
Number of rooms except chicken	One	1	50.0	0	0.0	1	50.0	2	0.074
	Two	1	3.1	7	21.9	24	75.0	32	
	Three	10	12.8	31	39.7	37	47.4	78	
	Four and above	3	6.3	13	27.1	32	66.7	48	
	Total	15		51		94		160	
Living overcrowded house	Yes	6	5.4	38	34.2	67	60.4	111	0.032*
	No	9	18.4	13	26.5	27	55.1	49	
	total	15		51		94		160	
Consanguinity marriage	1 st degree	4	12.1	9	27.3	20	60.6	33	0.340
	2 nd degree	5	14.3	8	22.9	22	62.9	35	
	3 rd degree	1	4.2	6	25.0	17	70.8	24	

	No relationship	5	7.4	28	41.2	35	51.5	68	
	total	15		51		94		160	
Smoking status	Passive	10	7.9	46	36.2	71	55.9	127	0.167
	Active	0	0.0	0	0.0	1	100.0	1	
	No smoking	5	15.6	5	15.6	22	68.8	32	
	total	15		51		94		160	
*Significant difference between proportions using Pearson Chi-square test at 0.05 level.									
**Highly Significant at P<0.01									
For cell have expected count less than 5, we used Fisher's Exact test at 0.05 level									

4. discussion

The current chapter explains the results of the previous chapter then interpreted and discussed logically and strengthened by similar or different literatures.

4.1. Discussion of the Socio-demographic Characteristics Related to the Study sample:

The results of the present study show in table (4.1) the highest age group of the participants was ranging from 20-29 was 40.6%. This result is congruent with the result done in (Hamdy Abdelatty et al., 2022) and (Abdul-Kareem et al., 2021). may be reflect the fact that the Iraqi society is young according to Ministry of Planning in Iraq (Iraqi Ministry of Planning, 2021). Regarding the education level of mother, the mothers who had completed primary education had the highest percentage. as 36.9%. The results of our study congruent with study that conducted in Iraq to assess Practice of Knowledge Concerning their Children under Five Years with Upper Respiratory Tract Infections (Abdul-Kareem et al., 2021). Regarding residency, the results of this study showed that the mother had the highest percentage of people who lived in urban regions as (90.6%). These results agreement with study done in Saudi Arabia (Al Shuhayb et al., 2018) were stated that majority of sample was live in urban area. These results can be attributed to the place of our study were only in PHCCs of Al-Najaf city. Regarding mother's occupation, the highest percentage of mothers is housewife 85%. The current study's findings are consistent with a study carried out in Pakistan, which revealed that the majority of participants were housewives (Bham et al., 2016). This is a logical result in our study where mothers who had completed their elementary and secondary education made up the largest share. Because of the housing crisis in Iraq, the current study showed that most families living in overcrowded house 69.7% which it congruent with the result done in Somaliland (Darod et al., 2023) and 81.9% were from larger families (more than 5), which it congruent with study that conducted in Egypt to evaluate Mothers'

Measures Regarding Prevention of Upper Respiratory Tract Infection and its Occurrence for their Children (Hamdy Abdelatty et al., 2022).

4.2. The Practices of Studied Sample About tonsillitis

In the total assessment of mother's practices about tonsillitis 58.7% which is the largest proportion of the group under study that demonstrated had good practice, 31.9% of them had fair practice and the lowest percentage 9.4% had poor practice. The results of our study disagree with study that conducted in Iraq (Abdul-Kareem et al., 2021). Also disagree with study done in India (Mutalik & Raje, 2017), who reported that most of mothers had poor practice about 68.9%. In our study, the majority of the mother's 91.9% had good practices regarding used the effectiveness of hygiene in preventing tonsillitis while about 52% in study done in Somalia (Muse et al., 2021). In the current study, about 85.6% of the mother's had good practices regarding drink warm liquids, this results inconsistent with result done in Pakistan (Ahmed et al., 2019) who reported only 6.5% had good practices regarding drink warm liquids. This difference may be do to differences in sociodemographic characteristic. Regarding Frequency of teeth brush per day our results find that the mothers' children had fair practice about 40.6% had good practice, this result support the study done in Somalia (Muse et al., 2021) who reported about 52% of the caregivers reported that their children brush their teeth. Regarding temperature check in our study 66.9% of mothers had a good practice comparing to study by (Abdul-Kareem et al., 2021) in Iraq that found most of mothers had a faire practice. Regarding visit the health institutions or a doctor our results find that the mothers' children about 87.5% had good practice, this result supported by study done by (Al Shuhayb et al., 2018) in al Saudi Arabia. Related to rest in bed about 76.2% of mothers had good practice, this result disagrees with study done by (Ahmed et al., 2019) in Pakistan who reported about 13.7% of the caregivers is necessary in this disease.

4.3 Association between mother's practice about tonsillitis and their demographic data.

Based on statistical analysis, the results of this study indicated a relationship between participants' practices and their sociodemographic characteristics. It had been found that a significant associated with living in overcrowded house, and highly significantly associated with Type of family, while the remaining variables have no significant association. These results were disagreed with the study done by (**Hamdy Abdelatty et al., 2022**) in Egypt.

5. Conclusion:

1. The study concludes the majority of mothers was (85%) housewife.
2. and also, the study shows that (81.9%) of the affected children were from larger families.
3. mothers' practices in dealing with childhood tonsillitis, the highest percentage has good practices.

6.Recomendations

1. The researchers suggested that special lectures and an educational campaign on tonsillitis and preventive steps to avoid this illness be organized for mothers.
2. Implement practical educational programs to improve their knowledge towards tonsillitis.
3. Develop guidelines booklets or posters for mothers about tonsillitis should be disseminated to mothers and children and its presentation in pediatric care settings.
4. Replication of this study on a larger probability sample from the different geographical locations in Iraq and further research.

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