

## Mother's Practice of Knowledge Concerning their Children under Five Years with Upper Respiratory Tract Infections

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### Abstract

**Background:** Upper respiratory tract infection control and prevention are a global issue, particularly in developing countries. Mothers are the main caregivers for their children, so their behaviors may be used as a disease prevention technique.

**Objectives:** To identify the demographical characteristics of study sample, to explain the practice of knowledge mothers toward their children under five years that suffer from upper respiratory tract disease.as well as, to find out the relationship between demographical characteristics of study sample and their practice of knowledge.

**Methodology:** Quantitative research cross -sectional study design started from 4 November 2018 to 2 May 2019, the study conducted to identify the practices of mothers regarding their children with upper respiratory tract disease. Non- probability (purposive sample) about 50 mothers has been chosen according inclusion criteria for this study, all of them have children under 5 years with upper respiratory tract infection and was admitted in Al Noor Hospital for Children.

**Results:** The results of a study show the overall assessment of the study sample good assessment and fair assessment was 32% for each one while the poor assessment was 38%, and there is significant association between age of child, type of feeding, and practice of knowledge mothers concerning upper respiratory infection.

**Conclusion:** The study concludes that Adolescents to early adult's mothers lives at urban areas of Babylon Governorate. who graduate from primary school, and their children age was under one year, and most of them their children under artificial feeding.

**Recommendation:** The researchers proposed that special instructional and educational programs for mothers be conducted to inform them about the preventive measures that should be taken to avoid upper respiratory tract disease, as well as to enable them to breastfeed their children to avoid any infection that could be transmitted to the baby via artificial feeding equipment.

**Key words:** *Practice of Knowledge, Upper respiratory infection, Mothers, children*

## 1.Introduction:

Upper respiratory tract infections (URTIs) are infections that affect the upper respiratory tract, which includes the nose, sinuses, pharynx, and larynx. Nasal obstruction, sore throat, tonsillitis, pharyngitis, laryngitis, sinusitis, otitis media, and the common cold are all examples of this. The majority of infections are caused by viruses, while some are caused by bacteria. Fungal or helminthic infections of the upper respiratory tract are also possible, although they are much less common <sup>(1)</sup>. Staphylococcus aureus, Haemophilus influenza type b (Hib), Streptococcus pneumonia, and other bacteria are the etiological agents of acute respiratory infections. Viruses such as the measles virus, respiratory syncytial virus (RSV), influenza virus, human parainfluenza viruses, and varicella virus are also present <sup>(2)</sup>

Acute respiratory infection (ARI) is the most common cause of morbidity and mortality in children under the age of five, resulting in high economic costs and being the most common reason for children seeking medical attention <sup>(3)</sup>. An approximate 10 million hospital visits are made per year for upper respiratory tract infections. During the first few weeks of illness, the most common explanation for outpatient visits among adults is symptom relief, and the majority of these appointments result in physicians writing unnecessary antibiotic prescriptions. Adults get a common cold two or three times a year, while children can get up to eight cases a year <sup>(4)</sup>.

Every year, more than 12 million children in developing countries die from acute respiratory illness before reaching their fifth birthday, with many of them dying in their first year of life. Acute respiratory infections (ARI), diarrheal diseases, and malnutrition, are the leading reasons of mortality, and morbidity in kids in developing countries (5).

As a result, infection prevention is critical in children under the age of five, as is thorough handwashing while caring for children who have respiratory infections. Controlling the fever is crucial if the child has a high temperature; however, dehydration is often a risk when children are febrile or anorexic, especially if vomiting or diarrhea is present. Children with acute infections also suffer a lack of appetite. In most cases, children should be allowed to decide their own nutritional requirements. Children under the age of five with respiratory disorders are irritable and difficult to treat. As a result, the family requires counseling, motivation, and practical advice on comfort measures and drug administration <sup>(6)</sup>.

Furthermore, many mothers have activities such as using herbals and remedies, as well as giving and applying antibiotics drugs in the medical treatment of children under the age of five, illustrating the significance of conducting comprehensive research studies in the field of intensifying the use of proper preventive measures in dealing with ARI infected children <sup>(7)</sup>. As a result, the goal of this study is to assess mothers' knowledge of practice of upper respiratory tract infections in children below the age of five years.

## **II. Methodology**

**1-Material and method:** Quantitative research by using cross sectional study design started from 4 November 2018 to 2 May 2019, the study conducted to identify the practice of knowledge mothers regarding their children with upper respiratory tract disease by using a questionnaire form in Al Noor Hospital for Children. This study, done in Al Noor Hospital for Children, the time which is required for collecting the data from study sample was from 3 February 2019 to 10 April 2019.

### **2- Sample:**

The non-probability purposive sample consists of 50 mothers of under five children, all of them have children under 5 years with upper respiratory tract disease and was admitted in Al Noor Hospital for Children.

### **Inclusion criteria:**

- a. Mothers who have under five children
- b. Mothers with children under the age of five who are interested in taking part in the research

**3-Data collected:** The study's participants were mothers whose children under the age of five and suffering from upper respiratory tract disease. The information gathered from the survey using the questionnaire method is divided into two sections (demographic information and mother's knowledge of practice). The information is gathered by self-report, and each section takes about 10-15 minutes to complete.

**4-Statistical analysis:** In this research, the SPSS software was used for statistical analysis to analyze the data and generate the findings. SPSS is a statistical package for statistical analysis (Statistical Package for Science Service version 20). This analysis used percentages, frequencies, means, and the Chi-square test.

**5- Ethical consideration:** Mothers were invited to participate in the study on a voluntary basis. mothers were told about the study's aim, benefits, risks, and procedures after they agreed to participate in it. Mothers submitted an anonymous questionnaire and were assured that their information would only be used for research purposes.

### III. Results

**Table (1) Demographical Characteristics of Study Sample**

Table (4-1) Show the characteristics of study sample related their demographic data, in this

Items	Frequency	Percentage
<b>1- Age of Mother</b>		
18-23 years	16	32.0
24-29 years	12	24.0
30-35 years	12	24.0
36 and above	10	20.0
Total	50	100.0
<b>2- Age of Child</b>		
Under one years	19	38.0
1-2 years	15	30.0
3-4 years	16	32.0
Total	50	100.0
<b>3- Educational level</b>		
Not read and write	7	14.0
Read and write	5	10.0
Primary school	17	34.0
Secondary school	11	22.0
Diploma & above	10	20.0
Total	50	100.0
<b>4- Residence</b>		
Urban	30	60.0
Rural	20	40.0
Total	50	100.0
<b>5- Occupation of Mother</b>		
House Wife	21	42.0
Student	16	32.0
Employer	13	26.0
Total	50	100.0
<b>6- Type of Feeding</b>		
Breast feeding	14	28.0
Artificial feeding	25	50.0
Mix feeding	11	22.0
Total	50	100.0

table the highest percentage of age was among mothers at age group (18-23 years) as 32%, while the higher percentage of child age were 38% among age groups (under 1 year). Regarding the educational level of mother, the highest percentage was among mothers with primary school as 34%, also the mother, which living in urban areas was the highest percentage as 60%. Related the occupation of mother, high percentage was 42% for house

wife mothers, finally the type of feeding for children was artificial feeding as higher percentage 50%.

<b><i>A- Practices of Mother in obstruction of Respiratory Tract</i></b>						
<b>Items</b>	<b>Always</b>	<b>Sometime</b>	<b>Never</b>	<b>M.S.</b>	<b>SD</b>	<b>Ass.</b>
1- Do you clean your baby's nose?	25	13	12	2.26	.828	Fair
2- Do you stop feeding the child for fear of choking while eating?	19	8	23	1.92	.922	Fair
3- Stop breast feeding and start artificial feeding for fear of difficulty breathing during breastfeeding?	111	14	25	1.72	.809	Fair
4- The use of woolen clothes instead of cotton clothes to keep the child from cold	12	21	17	1.90	.763	Fair
5- Do you put the child to lie on the back to facilitate breathing?	114	15	21	1.86	.833	Fair
<b><i>B- Practices of Mother during Increased Child body temperature</i></b>						
1- Do you measure the temperature of the child?	18	19	13	2.10	.789	Fair
2- Do you use compresses to reduce body temperature?	27	14	9	2.36	.776	Good
3- The multiplicity of giving fluids	27	12	11	2.32	.819	Fair
4- Do you use home remedies without medical advice?	4	14	32	1.44	.644	Poor
5- You use the medicines available in the house before consulting your doctor	10	15	25	1.70	.789	Fair
6- Do you visit the health institutions or a doctor	29	12	9	2.40	.782	Good
<b><i>C- Practices of Mother when child with coughing</i></b>						
1- Do you use herbs to reduce the severity of the cough?	8	11	32	1.54	.762	Poor

2- Increase the drink of warm liquids for the child	28	16	6	2.44	.705	Good
3- Give anti - cough drugs without consulting a doctor?	12	14	24	1.76	.822	Fair
4- Do you make your child inhale the hot steam to reduce coughing and nasal congestion?	5	18	27	1.56	.675	Poor
5- Renew the air of the house to avoid continuous coughs	20	16	14	2.12	.824	Fair

**Table (2) Assessment of Practice of Knowledge Mothers regarding their Children**

**F= Frequency, %= Percentage, S.d= Stander deviation, M.S.= Mean of score " Cut off point (0.66), Poor (mean of score 1-1.66), Fair (mean of score 1.67-2.33), Good (mean of score 2.34 and more)".Ass: assessment**

Table (4-2) show the assessment of the Practice of Knowledge mothers regarding their children with upper respiratory tract disease, according mean of scores, the first domain (Practices of Mother in obstruction of Respiratory Tract) all answers were fairly assessed. The second domain (Practices of Mother during Increased Child body temperature), the answer was a fair assessment of three questions (number 1 and 3), good assessment of two questions (number 2 and 6) and poor assessment just for one question (number 4). Finally, the third domain (Practices of Mother when child with coughing) the assessment of answers for this domain was poor for question (1 and 4), fair for question (3 and 5) and good for question number (2) only.

**Table (3) The Overall Assessment Practice of Knowledge for Study Sample**

Assessment	Frequency	Percentage
Good	16	32.0
Fair	16	32.0
Poor	18	38.0
Total	50	100.0

This table shows the overall assessment of the study sample, the good assessment and fair assessment was 32% for each one while the poor assessment was 38%.

**Table (4) The association between Practice of Knowledge mothers and Their Demographic Characteristics.**

Parameters	Chi-square	DF	P Value	Assessment
1- Age of Mother	1.975	6	.922	NS
2- Age of Child	9.906	4	.042	S
3- Educational Level of Mother	10.108	8	.257	NS
4- Residence	1.881	2	.390	NS
5- Occupation of Mother	6.799	4	.147	NS
6- Type of Feeding	15.660	4	.004	HS

This table show there are non-significant association between the practice of mothers and their demographic data except the (age of child and type of feeding) was a significant association at Value 0.05.

#### **4. Discussion:**

##### **Part1: Demographical Characteristics of Study Sample**

The finding of present study depicts that the highest percentage of age was among mothers at age group (18-23 years) as 32%. These results in the same line with results of the study that carried out in Iraq who found that the higher percentage of study sample their age between 18-23 years<sup>(8)</sup>.

Regarding educational level, the highest percentage was among mothers with primary school as 34%. The results of current study incongruent with study that conducted in Pakistan to assess Knowledge, Attitude and Practices of mothers on Acute Respiratory Tract Infection in children less than five years of age. who found that the majority of the study sample graduate from higher education<sup>(9)</sup>.

Concerning residency, the finding of present study revealed that the mother, which living in urban areas was the highest percentage as 60%. These results consistent with study in Saudi Arabia where stated that that majority of sample was live in urban area<sup>(10)</sup>.

Regarding the occupation of mother, high percentage was 42% for house wife mothers. the results of the presents study in the same line with the findings of study that conducted in Pakistan who was reported that majority of participants were house wife<sup>(9)</sup>. Concerning the type of feeding for children, the results of current study found that the higher percentage 50% of sample was artificial feeding. The findings of present study incongruent

with results of study that carried out by <sup>(11)</sup> who found that the majority of sample were under breast feeding.

Regarding child age, the higher percentage of child age were 38% among age groups (under 1 year). The results of current study consistent with study that conducted in Kenya <sup>(12)</sup> who was reported that the majority of study sample was under 3 years.

## **Part2: Practices of Mothers regarding their Children**

The current study shows that the assessment of the practice of knowledge mothers regarding their children with upper respiratory infection, according mean of scores, the first domain (Practices of Mother in obstruction of Respiratory Tract) all answers were fairly assessed. The second domain (Practices of Mother during Increased Child body temperature), the answer was a fair assessment of three questions (number 1 and 3), good assessment of two questions (number 2 and 6) and poor assessment just for one question (number 4). Finally, the third domain (Practices of Mother when child with coughing) the assessment of answers for this domain was poor for question (1 and 4), fair for question (3 and 5) and good for question number (2) only.

These results go along with <sup>(5)</sup> who was reported that practices of mothers about respiratory diseases was very poor .as well as, the current study results in the same line with the results of the study that conducted by <sup>(13)</sup> in Sudan, their results were majority of sample bad have been bad practices towards Acute Lower Respiratory Tract Infections. In other hand the findings of current study incongruent with finding of the study that carried out by <sup>(14)</sup>, their findings indicated that out of 100 mothers 23% had poor practices, 36% had acceptable practices and 41 % had good practices regarding acute respiratory infection.

## **Part3: The Overall Assessment for Study Sample**

This table shows the overall assessment of the study sample, the good assessment and fair assessment was 32% for each one while the poor assessment was 38%.the results of the study under hand go along with the study that carried out by <sup>(5)</sup> in India aimed to determine the knowledge, attitude, and practice (KAP) toward acute respiratory diseases among school going children and their parents. who reported that 51 (68.9) of mothers were poor practices about acute respiratory infection.

**Part4: The association between practices of Mothers and Their Demographic Characteristics.** show there are non-significant association between the practice of mothers and their demographic data except the (age of child and type of feeding) was a significant association at p-value 0.05. the results of presents study consistent with the study that carried out in Pakistan <sup>(15)</sup> who stated that higher significant association between breast feeding and acute respiratory infection. Regarding child age these results in the same line with the



findings of the study that conducted by <sup>(16)</sup> Findings reported that reported that child age was significant factors identified to be associated with acute respiratory infection.

### **Conclusions:**

The study concludes that Adolescents to early adult's mothers lives at urban areas of Babylon Governorate who graduate from primary school, and their children age was under one year, and most of them their children under artificial feeding. The child age and type of feeding have been effect on mothers practice of knowledge toward upper respiratory infection. Most of participants have poor practices about their children with upper respiratory infection

**Recommendations:** The researchers recommended should organize the special lectures and educational program for mothers about the about the preventive measures which should use to avoid upper respiratory tract disease and encourage of them about the great importance of breastfeeding for children to avoid any infection which may occur for baby by equipment of artificial feeding.

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