

# Knowledge Attitude and Practice of Parents Regarding Use of Antibiotics for Upper Respiratory Tract Infection Under Five Years of Children at Jinnah Hospital Lahore

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## Abstract

**Objectives:** To check parental knowledge, attitude and practice regarding use of antibiotics for upper respiratory tract infection under 5 years of age children.

**Study Design:** Cross-section, descriptive study.

**Place and Duration:** the study was done on admitted patient's parents regarding use of antibiotics for their children less than five years of age at Jinnah hospital paediatric ward from 15<sup>th</sup> March to 31<sup>st</sup> June 2020.

**Methodology:** Parent's knowledge attitude and practice checked for using antibiotics for upper respiratory tract infection in their under-five year's children. As a research tool questionnaire is used. Only parents of children below 5 years of age and admitted patients are included in these criteria. And people which are not willing to participate are excluded or more than 5 years children parents' people other than parents as grandparents. In sample size of 222 parents 68 were male respondents and 154 were female participants.

**Results:** 74 participants were higher education level 32 were matric level. Parents 51.8% have good knowledge 45.5% poor knowledge. 80% having good attitude and 88.3% with good practice. So education is related to good knowledge attitude and practice.

**Conclusion:** The people having satisfactory knowledge as well as attitude and good practice for use of antibiotics.

**Keywords:** Upper respiratory tract infection (URTI) knowledge attitude and practice (KAP), Jinnah Hospital Lahore (JHL)

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## 1. Introduction

Under five years of children upper respiratory tract infection is most leading cause of death. It is cause of children to hospitalize and creates high economic cost. We can say its leading cause of mortality and morbidity. (Dunea, Iordache & Pohoata, 2016). The assessed rate of intense respiratory disease horribleness among children less than five years a long time in KSA was 50 percent detailed in health care centers. (El-Gilany & Aref, 2000). A sizeable amount of antibiotics are consumed by children globally. In particularly upper respiratory tract infections, but most of the time all upper respiratory tract infection are caused by many viral species. So, there is no or minimal benefits to use antibiotics. All knows the Importance of antibiotics is much when we see any case which can be treated through antibiotics. It is a biggest discovery of 20<sup>th</sup> century as it decreases the disease and death rates. But in the past years its resistance has become a major health problem globally. In china USA and Kuwait, Saudi Arabia, India, Greece, and Cyprus study was done about usage of antibiotics, and development of its resistances. All over the world including Pakistan Pediatricians are commonly recommending antibiotics for upper respiratory infections in children. Upper respiratory tract infections may include flue, cough, otitis media, sinusitis, laryngitis, pharyngitis. In the case of otitis media and sinusitis and viral flue there is also no need of antibiotic because these are self-controlled. (Alluqmani et al., 2017). although some respiratory tract infections are caused by bacteria there is no need to use antibiotics they are self-settled. People believe that they can get well earlier through the use of antibiotics. Both doctors and parents are contributing in antibiotics abuse. (Butler, Hood, Verheij, & Little, 2009) Antibiotic abuse is common in Pakistan. Parent's worldwide concern is increasing for bacterial resistance against antibacterial drugs. The use of antibiotics is increased in the world. (Teng, Leong, Aljunid, & Cheah, 2004). This study is important in national intervention program so that we may monitor and lessen antibiotics misuse in children. This is also necessary to improve the public knowledge and change the attitude toward use of antibiotics. Parents may get knowledge about upper respiratory tract infection proper treatment and stop their practice of use of antibiotics for URTI; it may also improve their attitude. About 20-50 percent use of antibiotics is inappropriate. (Wong, Blumberg & Lowe, 2006). To meet the patient's expectation is a major factor for a doctor to recommend antibiotics and old experience of patient lead to it, so parents also want to use antibiotics for their children, and sometime they purchase from medical stores without current prescription. (Bauchner, Pelton, & Klein, 1999) Regarding use of antibiotic and parents knowledge attitude and practices many studies are conducted in Palestine, Greece, India, and Malaysia. (Zarb et al., 2012)

## 2. Methodology

Descriptive cross sectional design was used to check Knowledge attitude and practice of parents for use of antibiotics less than five years of children suffering from upper respiratory tract infection. This study conducted at Jinnah hospital Lahore on one month admitted patients in peds ward data is collected from parents of these babies are less than five years age admitted with upper respiratory tract infection. Population size was 500 and sample size was calculated by using Slovincs Formula that was 222. Convenient sampling technique was used. Questionnaire was used as research tool which consists of four sessions. These four are biographical data (parents and children), knowledge, attitude and practice. In knowledge, attitude and practice session questions were based on likert scale (strongly agree, agree, neutral, disagree and strongly disagree). Biographical session consists of two sub sessions; parent's data have five questions and children data 6 questions. Knowledge session consists of 7 questions, attitude 10 questions and practice 12 questions.

### 2.1 Statistical Analysis

SPSS version 20 was used for analysis. Data collected through questionnaire data was presented on writing. Percentage and frequency distribution was found out.

## 3. Results

Questionnaire was distributed 250 of which 25 were incomplete and 3 were misplaced so that was excluded. 12 variables are found out in all questionnaire and result and response is based on these.

### 3.1 Demographic information

Response rate of mothers were high (69.4%) than fathers (30.6%). The characteristics of first session (demographic data) are presented in table 1.

**Table 1**

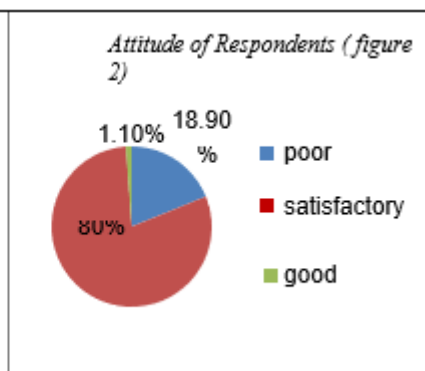
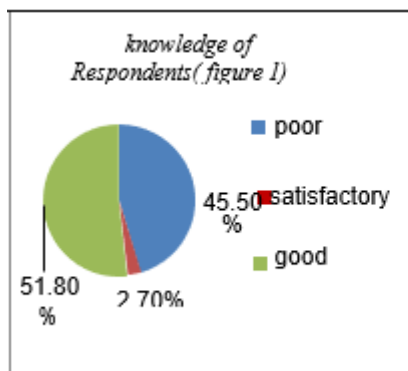
Demographic characteristics	Number of respondents	Percent
Male	68	30.6%
Female	154	69.4%
No education	69	31.1%
Primary	47	21.1%
Matric	32	14.4%
Higher	74	33.3%
Income <10000	55	24.8%
10000-20000	70	31.5%
>20000	97	43.7%
Male children	99	44.6%
Female children	123	55.4%

### 3.2 Knowledge, Attitude

Participants which responds on „antibiotics should be given to all patients who develops fever“ 95 (42.8%) are agree, 8(3.6%) are neutral, 119 (53.6%) are disagree. “most of upper respiratory tract infections are because of viruses antibiotics should not be given because they are viral origins “in this strongly agree are only 1(.5%). Agree are 100(45%), neutral are 6(2.7%) and disagree are very high 115(51.8%). Knowledge and attitude session results are shown in table 2. . “Do you think most of upper respiratory tract infections are resolved without antibiotics administration because they are self-limited?” response agree are 125(56.3%), neutral are 2(.9%) and disagree are 95(42.8%). “Would you change your pediatrician because of not prescribing as many antibiotics as you think “agree are 42(18.9%), neutral 2(.9%) and disagree are 177(79.7%) as strongly disagree are 1 (.5%). Figure 1 and figure 2 are presenting the percentages of parental knowledge and attitude.

**Table 2:**

Knowledge and attitude of respondents	Numbers of respondents	Percentage
Antibiotics are given all patients who develop fever		
Agree	95	42.8%
Neutral	8	3.6%
Disagree	119	53.6%
Most of upper respiratory tract infection are viral origin antibiotics should not be given.		
Strongly agree	1	0.5%
Agree	100	45%
Neutral	6	2.7%
Disagree	115	51.8%
Do you think that most of the upper respiratory tract infections are resolved without antibiotics administration because they are self-limited?		
Agree	125	125
Neutral	2	2
Disagree	95	95
Would you change your pediatrician because of not prescribing as many antibiotics as you think?		
Agree	42	18.9%
Neutral	2	0.9%
Disagree	177	79.7%
Strongly disagree	1	0.5%

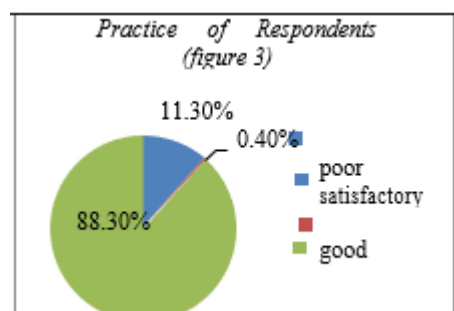


### 3.3 Practice

The practice session is analyzed with four variables and presented in table 4. “Do you believe that you are well informed about judicious antibiotics use?” “In frequency and percentage .in this agree are 208(93.7%) and disagree are 14(6.3%). of parents on “How much do you consider the possible antibiotics adverse reaction when using them?”93(41.9%) are agree, 2(.9%) are neutral and 127(57%) are disagree. the response of” How often you asked your pediatrician whether or not the prescription of antibiotics is necessary?” agree 114(51.4%), neutral are 2(.9%) ,disagree are 105(47.3%) and strongly disagree are 1(.5%). the response of members “How often your pediatrician recommended antibiotics on phone?” agree 25(11.3%) , disagree are 196(88.3%) and strongly disagree are 1(.5%) .

Table 3

Practice of respondents	Number of respondents	Percentage
Do you believe that you are well informed about judicious antibiotics use? Agree Disagree	208 14	97.3% 6.3%
How much do you consider the possible antibiotics adverse reaction when using them? Agree Neutral Disagree	93 2 127	41.9% 0.9% 57%
How often you asked your pediatrician whether or not the prescription of antibiotics is necessary? Agree Neutral Disagree Strongly disagree	114 2 105 1	51.4% 0.9% 47.3% 0.1%
How often you're pediatrician recommended antibiotics on phone? Agree Disagree Strongly disagree	25 196 1	11.3% 88.3% 0.5%



#### 4. Discussion

The study is done to analyses the parents knowledge attitude and practice about unnecessary usage of antibiotics for upper respiratory tract infections in children which are aged below 5years and developing respiratory tract infection repeatedly. That's why there parents are concerned use of antibiotics and requesting their pediatricians to recommend more antibiotics and which have experience as their children recover more rapidly when antibiotics are used in these case, but they also know the antibiotics are for bacterial infections and mostly upper respiratory tract infection are of viral origins but they believe that the roll of antibiotics is good in treating such infections. The respondents are male 68(30.6%) and female participants are 154(69.4%).there were more female participants then female in admitted patients. The education status of the respondents was, no education 69(31.1%), respondents with primary education was 47(21.2%), matric qualified parents were 32(14.4%) and parents with higher education were 74(33.3%)...The income status of respondents was as <10,000/- were 55(24.8%) and parents of income group between 10,000/--20,000/- were 70(31.5%) and more than 20,000/- earning were 97(43.7%). Gender of children was checked which were admitted in hospital of their parents were respondents.in these 99 were male (44.6%) and female children were 123(55.4%)... the results showing that 51.8% having good knowledge 45.5% with poor knowledge attitude 80% was satisfactory and good practice were 80%. Similar study was done on Parent's knowledge attitude and practice on antibiotics use by children on different areas of Saudi Arab, total 544 parents were respondent 75% male and others were female 68.6% purchased antibiotics without prescription.34% purchased after prescription.7.2% not used antibiotics...505 take advice from their doctor to use antibiotics. It. (Al-Ayed, 2019)In DUBAI parental views of antibiotics use in children with upper respiratory tract infections .only 10% says antibiotics can cause harm.33% says antibiotics can be give if they develop fever regardless of cause.48% were aware about respiratory infections are caused by virus ,without medical advice they use antibiotics because lack of money.83% based on pharmacist recommendations 68% using previously prescribe medicines 66.2%.(Hammour, Al-Saleh, & Hammour,

2019)Parent's self-directed practice for antibiotics use study done in Holy Makah Saudi Arabia results were 95% mothers respond, there were no health insurance of 67% to bear the costs of medicine 74% low income people. Doctor is the source of information 70% believed.URTI is caused by virus only 8% knows that. For cough nasal discharge and sore throat and fever 53% expect to treat their children with antibiotics. And they are using Augmentin, calomox, amoxil, erythromycin for their purpose.(Faidah et al., 2019).

## 5. Conclusion

As 74 respondents were higher education level and 32 with matric level .The findings of this study show that parents have satisfactory knowledge and attitude and good practice about use of antibiotics.

### 5.1 Research recommendations

In this research we come to know that there is relationship between literate parents and their knowledge about antibiotics. So it is recommended that our government should take steps to improve overall education level of parents are should be a topic in regular subjects about antibiotics and their uses.

### 5.2 Acknowledgement

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