

# Knowledge and Practices of Mothers regarding Acute Respiratory Infection having Children Below 5 Years of Age Visiting Pediatric Outpatient Department Bahawal Victoria Hospital Bahawalpur

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## ABSTRACT

**Objective:** The aim of study was to assess the knowledge and practices of mothers regarding ARI having children below 5 years of age, attending Pediatric outpatient department, Bahawal Victoria Hospital, Bahawalpur.

**Study Design:** Descriptive / cross sectional study

**Place and Duration of Study:** This study was conducted in Pediatric outpatient Department, Bahawal Victoria Hospital, Bahawalpur from 13 May 2016 to 13 June 2016.

**Materials and Methods:** The data was collected through a pre-formed questionnaire about knowledge of mothers regarding episodes and symptoms of ARI while last portion was about practices of mothers regarding treatment of ARI. Data was entered and analyzed using SPSS 13. All result was presented in percentage and in frequencies.

**Results:** In this study 100 mothers were included, out of which 10% had poor knowledge, 72% were having satisfactory knowledge while 18% had good knowledge regarding ARI. Out of 100 mothers 23% had poor practices, 36% had satisfactory practices and 41 % had good practices regarding ARI.

**Conclusion:** The study reveals that most of the mother had satisfactory or good knowledge about ARI. Half of the mothers know all the dangerous symptoms of ARI. However, only half of the mothers had good practices regarding ARI. Utilization of health services was moderate.

**Key Words:** Mothers; Knowledge; Practices; Symptoms

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## INTRODUCTION

Acute respiratory infection (ARI) is the leading cause of death in under 5 children. ARI is an acute infection of any part of respiratory tract and related structures characterized by fever, cough, running nose, sore throat, difficulty in breathing and ear problems.<sup>1</sup> Each child suffers 4-5 attacks a year.<sup>2</sup> In most children it manifests as a mild disease but in some pneumonia may occur which presents as the main cause of death.<sup>3</sup> It is the longest baseline contributor to disability adjusted life years (DALYS).<sup>4</sup> For majority of the world health status is determined by level of socioeconomic development.

Knowledge, Attitude and practice of mothers play an important role in reduction of mortality in under 5 children. A number of risk factors have contributed to high mortality form of ARI. First is socioeconomic status while second is education especially of mother.<sup>3</sup> Other factors like overcrowding, cultural norms and use of antibiotics are also responsible.<sup>5</sup> According to WHO 63 million children died worldwide in 2013, who were under 5 of age and among them pneumonia was the major silent killer. In Pakistan under 5 years mortality rate was 86/1000 live births in 2013. ARI alone responsible for 17% of deaths among these children.<sup>6</sup> According to WHO, India has highest estimated absolute number of new cases every year followed by China and Pakistan. South East Asia has the highest incidence of Pneumonia in world.<sup>7</sup> Incidence of pneumonia is high among developing countries as compared to developed countries. This is due to high prevalence of malnutrition, low birth weight and indoor pollution in developing countries. Scheduling, preventing and treatment of ARI in children require accurate information about knowledge and practices of mothers due to high mortality and morbidity because of ARI in Pakistan, the present study

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aims to evaluate knowledge and practices of mothers regarding ARI. This will ultimately help the policy makers to design the strategies in order to reduce the morbidity and mortality and to achieve the millennium developing goals.

## MATERIALS AND METHODS

The data was collected during 3 months from 13 May 2016 to 13 June 2016 in pediatric outdoor Bahawal Victoria Hospital Bahawalpur from the mother coming with child less than 5 Year of age having complaint of cough were including in study. After verbal consent interview was done. The child who were having sick and enough to be admitted in ward and those not giving consultant were excluded from this study. The mother interview was taken by one of the researcher using standard questionnaire including demographic data. The interview was conducting in English, Urdu and with local language regarding to the understanding mother of the child. Data was entered and analyzed using SPSS 13. All result was presented in percentages and in frequencies.

## RESULTS

There were 100 mother included in study. The 44 (44%) mothers were between age of 15 to 25 years, 40 (40%) between ages of 26 to 35 years while 16 (16%) were above the age of 35 year. On the Level of the Education among 33 (33%) mothers were literate, 24 (24%) were under Metric, 43 (43) Metric or above. As far the frequency of monthly income among respondents was concerned, 30 (30%) income was less than 10,000 and 45 (45%) income was 10,000 to 20,000 and 25 (25%) mothers income was 25,000. Frequency of episodes of ARI during last 2 months in children observed by the mothers was 7 (7%) having no episodes, 35 (35%) having 1 episodes, 33 (33%) having 2 episodes, 25 (25%) having more than 2 episodes. Frequency of symptoms observed by mothers during last episode in children was 54 (54%) children observed runny nose, 54 (54%) children observed with cough, 16 (16%) observed with vomiting, 8 (8%) children observed with ear discharge, 18 (18%) children observed difficulty in breathing.

Frequency of Symptoms of ARI considered dangerous by mothers in children was 74 (74%) mothers considered Unable to feed as dangerous, 89 (89%) mothers considered Difficult Breathing, 84 (84%) mothers considered Convulsions, and 61 (61%) mothers considered symptoms wheezing considered as dangerous.

The perceived cause of ARI according to Respondents was 40 (40%) mothers considered Exposure to cold is the main cause ARI, 26 (26%) mothers considered intake of Sour/cold Food, 17 (17%) mothers considered due to Germs, 13 (13%) considered Evil Eye and 4(4%) mothers considered after bathing in the cause of ARI.

The 18 (18%) mother used Home Remedies for treatment, 20 (20%) consulted with Hakim / Quack, while 62 (62%) mothers consultd with Doctors or Hospitals. The 36 (36%) mothers used hot liquids for treatment, 42 (42%) use Honey for treatment, 28 (28%) used keep Warm for treatment as home remedies for treatment of ARI. The source of advice for home remedies was 45 (45%) mothers used home remedies as a treatment advised by mother in law, 43 (43%) mothers by themselves, 12 (12%) used advised by their husbands.

The frequency of Allopathic Medicine usage without consultation was 57 (57%) mothers used without consultation while 43 (43%) mothers used with the medicine with consultation. The source of advice for medicine usage was 14 (14%) mothers used by themselves, 24 (24%) used medicine advised by Husbands, 5 (5%) used medicine advised by mother in law. There were 46 (46%) mothers who delayed in taking consultation from doctor, 54 (54%) consulted with doctor without delay time. Reasons for delay in consultation from doctor was 14 (14%) mothers took it as a minor disease, 13 (13%) mothers having no one for a company to go to a doctor, 11 (11%) had lack of time, 10 (10%) mothers could can afford to visit a doctor and 1 (1%) delay was due to some other reasons.

## DISCUSSION

Control of ARI is a major public health problem in developing countries. Implementation of cases management protocol requires participation of the community to reduce morbidity and mortality from ARI.

ARI is the leading cause of death in young children in Pakistan responsible for 17% of all deaths under 5 years of age. Globally 4.2 million deaths are estimated to occur in all age groups due to ARI; of these 1.8 million are estimate to occur in a child between 1-59 months. ARI is a major cause of pediatric mortality and morbidity particularly when associated with delays in treatment, thus showing high importance for conducting a survey. Effective ARI health education needs to be based on understanding the prevailing knowledge, beliefs and practices of mothers.<sup>8</sup>

Regarding educational status, our research showed that 33% of mothers were illiterate, 24% had primary education and 43% were matriculate or above. In a similar study conducted in Tehran, Iran in 2014, 56.1% of mothers had secondary school education while 20% had more than high school education<sup>9</sup>.

In our study, 10% of mothers had poor knowledge, 72% satisfactory and 18% had good knowledge. According to similar study conducted in Saudi Arabia in 2013, Knowledge score was found to be poor in 37.8% of mothers, acceptable in 42.8% and good in 19.5% of mothers. Educational level influences that mother's knowledge and practices. Our study showed that knowledge scores were better in mothers who had secondary education or higher education. It is quite

logical as educated others have a better chance to read and know about ARI. These results are similar to those in Saudi Arabia in 2013.<sup>10</sup>

Findings of our study demonstrates that middle aged mothers (26-35 years) had more knowledge and had better practice scores than older mothers (> 36 years). This is in contrast to a study conducted in Saudi Arabia in 2013 which indicated a positive correlation between mother's knowledge score and their ages.<sup>9</sup>

Regarding seriousness of disease, our study indicates inability to feed 74%, breathing difficulty 89%, convulsions 84% and wheezing 64%. In a similar study in Rural Nepal in 2013, fast breathing 78%, refuse to feed 39%, fever 78% and chest in drawing 72% was found to be the dangerous symptoms.<sup>5</sup>

Only 17% mothers in our study found germs to be the cause of ARI while rest of them attributed it to causes such intake of sour or cold food, exposure to cold. This shows lack of knowledge of mothers. Similar results were found in Mithi Tharparkar in 2012 where 28% mothers gave the right cause while rest of them gave irrelevant answers.<sup>11</sup>

Action taken on appearance of disease, our study showed that 18% mothers went for home remedies, 20% consulted a Hakeem/spiritual healer and 62% consulted a doctor. In a study conducted in West Bengal, India in 2013, 70% mothers preferred allopathic medicine while 21.5% chose household remedies.<sup>4</sup> In a similar study in MithiTharparkar, 36% started home remedies while 64% visited a doctor.<sup>11</sup>

Preferred home remedies according to our research are Honey 42%, hot liquids 36% and keeping warm 28%. Whereas in study in Rural Nepal in 2013, preferred home remedies were Tulsi Leaf 54%, honey with ginger 18%, saline water gargles 30% and sugar tea 7%.<sup>5</sup>

Our study indicated that 43% mothers used allopathic medicine without consultation of a doctor which leads to development of resistance among pathogenic organisms. Similar study in Rural Nepal in 2013 reported self-medication by only 7% of mothers.<sup>1</sup>

Our study showed that poor socio-economic status and low levels of education of mothers can also contribute to lack of knowledge regarding ARI. This reflects the need of health education, improving socioeconomic status of people and increasing the literacy rate of mothers in a long term basis.

## CONCLUSION

The study reveals that most of the mothers had satisfactory or good knowledge about ARI. Half of the mothers knew all the dangerous symptoms of ARI. However, only half of the mothers had good practice regarding ARI. Utilization of health services was moderate. Different interventions like health education sessions, media campaign, and motivation through LHWs, Banners, and different NGOs etc. are required.

These can further improve knowledge, attitude & especially practice of mothers which can contribute in reducing Child Mortality Rate due to ARI.

**Conflict of Interest:** The study has no conflict of interest to declare by any author.

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