

Knowledge Attitude and Practice about Acute Respiratory Infection among the Mothers of Under Five Children Attending Civil Hospital Mithi Tharparkar Desert

Rajesh Kumar¹, Anjum Hashmi^{2*}, Jamil Ahmed Soomro³ and Aslam Ghouri⁴

¹Polio Eradication Officer, World Health Organization, Pakistan

²Community Health Officer, Pakistan Relief Foundation Medical Center, Pakistan

³District Officer MNCH, World Health Organization, Pakistan

⁴Liaquat University of Medical and Health Sciences, Pakistan

Abstract

Background: Mortality and morbidity indicators represent the traditional measures of health status of community. These indicators continue to be used as the starting point in health status evaluation. The knowledge, attitude and practice of mothers play an important role in the reduction of morbidity in under 5 children. Socio economic conditions have long been known to influence human health.

Objectives: To evaluate the health seeking behavior of mothers, regarding ARI in under five children and to assess the knowledge, attitude and practices of mothers regarding ARI.

Methodology: It is a cross sectional study conducted from Nov 2008 to March 2009 at Civil Hospital Mithi of Tharparkar Desert. 1000 mothers were selected by convenience sampling and interviews were conducted. Data was entered and analyzed on SPSS 10.

Results: The duration of illness was less than 2 days in 3% and more than 2 days in 97% of children. 11% children are less than 1 year age, 31% between 1 year and 3 years age and 58% between the age of 3 to 5 years. 72% mothers had knowledge about ARI and could recognize it but 28% had no knowledge about ARI. 56% mothers took ARI as a serious disease while 44% did not. 76% mothers said that breast feeding should be continued during illness, while 24% said routine feeding should not be continued during ARI.

Conclusion: Knowledge of less educated mothers of children with ARI is low. Interventions like health education sessions, media campaign, lady health workers (LHW), banners and NGOs etc. are needed to improve situation.

Keywords: Acute disease; Respiratory tract infections; Child health services/utilization; Epidemiological studies; Infant; Pakistan/epidemiology

Introduction

Acute respiratory infection (ARI) is major public health problem in developing countries. Acute Diarrhea is rivaled in importance only by respiratory infection as a cause of morbidity in world wide scale. In our country ARI is considered as one of the major killer diseases and one of the leading causes of morbidity and mortality in children below five years of age. These infections are more frequent in urban community as compared to rural communities. In rural areas there are 3-5 episodes of ARI per child per year while in urban areas there are 5-8 episodes per child per year.

Traditional measures of health status of a community are mortality and morbidity indicators. These indicators continue to be used as the starting point in health status evaluation [1]. In Pakistan 19-20% of total deaths occur due to ARI in children under five years of age. Majority of children have about 4-6 episodes of ARI each year in their first five years of life [2]. It accounts for 60% of national mortality in Pakistan, which is 168 per 1000 live births [3].

For majority of world people, health status is determined by the level of socio economic development. Knowledge, attitude and practice of mothers play an important role in the reduction of morbidity in under 5 children. A number of risk factors have been shown to contribute to high mortality from ARI. First is socio economic conditions that have long been known to influence human health. A second measure to assess the health status is education, especially of female.

The study will generate new knowledge on domiciliary management practices of ARI which can be helpful in prevention of risk factors and our ability to improve early detection and prophylactic measures for ARI.

Objectives

To evaluate the health seeking behavior of mothers regarding ARI in under 5 children in Tharparkar Desert and to assess knowledge, attitude and practices of mothers regarding ARI.

Methodology

It is a cross sectional study conducted from Nov 2008 to March 2009 at Civil Hospital Mithi of Tharparkar Desert Sindh, Pakistan. 1000 mothers were selected by non probability convenience sampling interviews conducted by trained doctors. Informal permission was obtained from the subjects after explaining the purpose of study. A

***Corresponding author:** Anjum Hashmi MPH, Community Health Officer, Pakistan Relief Foundation Medical Center, Pakistan, Tel: 92-332-3171275; E-mail: anjumhashmi61@hotmail.com

Received December 07, 2011; **Accepted** January 18, 2012; **Published** January 20, 2012

Citation: Kumar R, Hashmi A, Soomro JA, Ghouri A (2012) Knowledge Attitude and Practice about Acute Respiratory Infection among the Mothers of Under Five Children Attending Civil Hospital Mithi Tharparkar Desert. Primary Health Care 2:108. doi:10.4172/2167-1079.1000108

Copyright: © 2012 Kumar R, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

structured interview will be conducted to assess the demographic data and test knowledge related to domiciliary management and prevention of ARI. The inclusive criterion is all the mothers of children under five years with ARI attending pediatric OPD. Exclusive criteria are children with congenital and chronic diseases. Data was entered and descriptive and inferential statistics was used for data analysis. Chi-square (χ^2) test was applied to measure the association between the level of knowledge and selected demographic variables done on SPSS 10.

Results

Demographic results

The duration of illness was less than 2 days in 3% and more than 2 days in 97% of children. 1% children are less than 1 year age 31% between 1 year and 3 years age and 58% between the ages of 3 to 5 years. Age and sex ratio of children showed below.

1 year 3% females and 8% males, between 1 and 3 years 19% female and 12% males and between 3 to 5 years were 22% females and 36% males. Socio economic status of family of children 55% belong to lower class, 45% to middle class and 2% in upper class. Urban/rural status of families 23% belong to rural area and 77% to urban area. There were 44% female children and 56% male children. Education level of mothers included 36% mothers were illiterate, 74% were educated, level of education 11% primary, 30% matriculate and 23% intermediate or graduate (Table 1).

Knowledge attitude and practice results

Seventy two percent mothers had knowledge about ARI and could recognize it while 28% mothers had no knowledge about ARI. Fifty six percent mothers took ARI as a serious disease while 44% did not. About feeding practices during illness of their children 76% mothers said that breast feeding should be continued during illness, while 24% mothers said routine feeding should not be continued during ARI. Thirty Six percent mothers started home remedies while 64% mother went to see the doctor and 95% mothers followed doctor's advice while 5% did not. In ARI cough was present in 76% cases, fever in 72% cases, breathing difficulty in 48% cases, running of nose in 47% cases and ear discharge was present in 2% cases. About cause of ARI 72% mothers described right reason of ARI while 28% mother given irrelevant answer (Table 2).

Comparison of urban /rural status with continuation of breast feeding during ARI showed 6% rural mothers said breast feeding should not be given during ARI while 17% said breast feeding can be continued during ARI, 18% urban mothers said no and 59% said yes for breast feeding. Locality wise association of breast feeding practices between rural and urban is $p=0.0001$ considered to be extremely statistically significant (Table 3).

Discussion

Our study has assessed the knowledge, attitude and practices among mothers of children under five years with complain of acute respiratory infection attending pediatrics outpatient department at Civil Hospital Mithi. Our study was focused on determining severity of disease, feeding practice during illness, knowledge about cause of disease action taken after illness of their children, usage of home remedies and follow up of doctor's advise.

A study conducted in Malaysia showed large proportion of the respondents felt that their present knowledge of ARI was inadequate

VARIABLES	TOTAL N=1000	PERCENTAGE %
Age (in years)		
< 1	110	11%
1 to < 3	310	31%
3 to 5	580	58%
Rural Background	230	23%
Urban Background	770	77%
Economic status		
Lower	550	55%
Middle	450	45%
Upper	20	2%
Action taken for ARI		
Home remedies	360	36%
Visit to doctor	640	64%
Education		
Un-education	360	36%
Educated	740	74%
Educational level		
Primary	110	11%
Matriculate	300	30%
Intermediate/Graduate	230	23%
Proper usage of Medicines	840	84%
Follow up visit	120	12%
Admission to hospital	40	4%

Table 1: Demographic characteristics of mothers (n=1000).

Variables	Total (n=1000)	Percentage %	p value
Recognize symptoms of ARI			
No	280	28%	0.0188
Yes	720	72%	
Recognize seriousness of ARI			
No	440	44%	0.0001
Yes	560	56%	
Breastfeeding during ARI			
No	240	24%	0.0001
Yes	760	76%	
Routine feeding during ARI			
No	720	72%	0.0001
Yes	280	28%	
Follows doctor's advice			
No	50	5%	0.0001
Yes	950	95%	

Table 2: Education verses Knowledge, attitude and practices of mothers about ARI.

[4]. About action taken after illness, our study showed 36% mothers started home remedies while 64% visited a doctor. A study conducted in Baringo District, Kenya showed 87.1% of mothers said that they would seek health center services for severe ARI [5]. Another study which was conducted in Aligarh India showed 72% mothers took early action during an episode of ARI [6]. However another study which was conducted in Gondar Ethiopia showed that 35.6% mothers took their children to a traditional healer [7].

About cause of ARI this study showed 28% mothers described right reason for ARI. One study conducted regarding ARI in Kumasi Ghana showed poor maternal understanding of the etiology of ARI [8]. Both studies shown knowledge about cause for ARI was low.

Localities	Breast feeding practices		Total	p-value
	No	Yes		
Rural	160	170	230	0.0001
Urban	180	590	770	
Total	240	760	1000	

Table 3: Locality wise breastfeeding practices of mothers of under 5 years children.

About socioeconomic status of family of children attending hospital 53% were in lower class and 45% were in middle class. This study showed 36% uneducated mothers attending government health facility.

About severity of disease in case of ARI this study showed 56% mothers said it is a serious disease. A study of Malaysia showed reason for worrying was the problem of distance, transportation and looking after for their remaining children at home. Overall our study showed lack of knowledge, attitude and practice among mothers regarding ARI.

A study was done at Karachi Pakistan in peri-urban communities regarding ARI. The children, identified with fever and cough during community surveillance at regular intervals, were referred to especially established study clinics. These children were diagnosed to have “no pneumonia”, “pneumonia” and “severe pneumonia” as per IMCI guidelines. To identify the causative organisms, children with pneumonia and severe pneumonia were investigated with oropharyngeal swabs and blood culture. Acute respiratory infection was seen in 5884 children during 1st February 2002 to 31st January 2003. Of these, 1097 children had pneumonia and severe pneumonia, with an incidence 440.3/1000 children per year for Acute Respiratory Infections and 82.1/1000 children per year for pneumonias. *Haemophilus influenzae*, *Streptococcus pneumoniae* and *Klebsiella pneumoniae* were isolated from 10.9%, 3.7% and 8.5% of oropharyngeal swabs respectively. Extrapolating from the results of this study, the total number of cases of pneumonias in children aged less than five years in Pakistan is estimated to be 213,116 per year due to *H. influenzae*, and 71,864 per year due to *S. pneumoniae* [9].

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

Conclusion

Incidence of acute respiratory infections in children varies in different communities of Mithi and is a common cause of morbidity. Knowledge of less educated mothers of children is low, which needs to be improved by different interventions like health education sessions, media campaign, and knowledge through LHWs, Banners, and different NGOs etc. These can improve knowledge, attitude & practice of mothers which can contribute in reducing Child Mortality Rate due to ARI in Tharparkar.

Acknowledgements

Our heartiest acknowledgements to the Medical Superintendent and doctors of Paediatric OPD Civil Hospital Mithi Tharparkar for providing every possible help.

References

1. Park K (2004) Text book of Preventive and Social Medicine. (24th edn) M. Banarsides Bhanot Publishers, India.
2. Federal ARI Cell, Children Hospital, PIMS, Ministry of Health Government of Pakistan, Islamabad (1991) Management of young child with an Acute Respiratory Infection Adapted from WHO document. Printed of UNICEF, Pakistan.
3. Ansari MA, Shah KS, Ilias M (2003) Text book of Community Medicine and Public Health. (6th edn) Time Publishers, Medical Division Urdu Bazaar, Karachi, Pakistan.
4. Vasanthamala A, Arokia Sony JT (1989) Knowledge, attitude and practices factors in childhood acute respiratory infection in Peninsular Malaysia Health District. *Asia Pac J Public Health* 3: 219-223.
5. Simiyu DE, Wafula EM, Nduati RW (2003) Mothers' knowledge, attitudes and practices regarding acute respiratory infections in children in Baringo District, Kenya. *East Afr Med J* 80: 303-307.
6. Khan AZ, Tickoo R, Arif T, Zaheer M (1995) Mothers' attitudes to children's chest infections in India. *J R Soc Health* 115: 314-317.
7. Taken T, Dag new M (1995) Health Behavior of rural mothers to acute respiratory infection in children in Gondar, Ethiopia. *East Africa Medical Journal* 72: 623-657.
8. Denno DM, Bentsi-Enchill A, Mock CN, Adelson JW (1994) Maternal knowledge, attitude and practices regarding childhood acute respiratory infections in Kumasi, Ghana. *Ann Trop Paediatr* 14: 293-301.
9. Nizami SQ, Bhutta ZA, Hasan R (2006) Incidence of acute respiratory infections in children 2 months to 5 years of age in periurban communities in Karachi, Pakistan. *J Pak Med Assoc* 56: 163-167.