



INTERNATIONAL JOURNAL OF RESEARCH IN PHARMACEUTICAL SCIENCES

Published by JK Welfare & Pharmascope Foundation

Journal Home Page: www.ijrps.com

Knowledge, attitude and practices about acute respiratory infection among mothers of under 5 children in an urban area of Tamil Nadu

Jeya Subha C, Shiny Chrism Queen Nesan G*, Charumathi B, Timsi Jain

Department of Community Medicine, Saveetha Medical College and Hospital, Thandalam, Chennai 602 105, Tamil Nadu, India



Article History:

Received on: 15 Nov 2019

Revised on: 19 Dec 2019

Accepted on: 03 Mar 2020

Keywords:

ARI,
Attitude,
Knowledge,
Mothers,
Practice,
Under 5

ABSTRACT

Acute respiratory infection (ARI) is one of the major public health problems in developing countries and in India, ARI is considered as one of the major killer diseases and leading cause for morbidity and mortality in children below five years. Knowledge, attitude and practice of mothers play a major role in the decrease of morbidity in under 5 children. The objective is to evaluate the health-seeking behaviour of mothers and to assess knowledge, attitude and practices of mothers regarding ARI. Using pretested semi-structured proforma, a descriptive study on 204 mothers was done and information on knowledge of ARI, attitude and practice regarding consulting physician, antibiotic use were collected and results were analysed using SPSS 22. Questionnaire regarding knowledge preferred that 61.8% of mothers preferred private set up as a place of choice of treatment and the commonest aggravating factor was infection (36.8%), most common complication was Pneumonia (32.4%), and most mothers opted for the medical practitioner (86.3%) for treatment. Self-medication was seen to be practiced by (52.5%). The younger age, a short period of time since marriage, and higher educational level were found to be significantly correlated with the good knowledge, attitude and practice and this could be due to that younger women with a lower duration of marriage have more time as well as being aware of new media and internet. They would gain knowledge easily compared to older women.

*Corresponding Author

Name: Shiny Chrism Queen Nesan G

Phone: 9500101858

Email: shinynesan75@gmail.com

ISSN: 0975-7538

DOI: <https://doi.org/10.26452/ijrps.v11iSPL2.2054>

Production and Hosted by

IJRPS | www.ijrps.com

© 2020 | All rights reserved.

INTRODUCTION

Acute respiratory infection is defined as "inflammation of the respiratory tract anywhere from nose to alveoli with a wide range of combinations of signs

and symptoms". It may interfere with the normal breathing of the individual and is-communicable in nature ([Healthline, 2017](#)). ARI is a major public health problem in our country and one of the leading causes of morbidity and mortality in children below 5 years of age. Every year ARIs account for over 12 million hospital admissions among children below five years of age ([Nair et al., 2013](#); [WHO, 2019](#)). India ranks 2nd for three-quarters of death due to ARI in under 5 population in developing regions of the world ([Bhandari and Chowdhary, 2006](#)). Socio-economic conditions influences human health and measure to assess the health status is education, especially of a female as a mother is the main caregiver for the child. ARI there is a lack of basic health service availability, lack of awareness and other factors associated like over-crowding, environmental factors, defects in immune system, over use and mis

Table 1: Socio-demographic details of the Study participants

Variables	Frequency (N)	Percentage (%)
Type of family		
Nuclear	168	82.4%
Joint	30	14.7%
Three generation	6	2.9%
Income of family per month		
Less than 20000	16	7.8%
20000-50000	114	55.9%
Above 50000	74	36.3%
Educational status		
Primary	23	11.3%
Middle school	36	17.6%
High school	47	23%
Graduate	98	48%
Occupation		
Unemployed	70	34.3%
Unskilled	21	10.3%
Skilled	32	15.7%
Semi profession	20	9.8%
Profession	61	29.9%
Immunisation status of a child		
Partially immunised	19	9.3%
Immunised till date	185	90.7%

use of antibiotics, poverty, absence of ventilation and indoor air pollution however majority of associated factors are preventable (Prajapati *et al.*, 2012). This study observes knowledge on home management practices of ARI, which is useful in the prevention and management of the disease. The need for this study is to assess the knowledge, attitude and practices of mothers on ARI in children under 5 years and to evaluate the association between KAP based on their education and age.

MATERIALS AND METHODS

A cross-sectional descriptive health survey conducted for 5 months in the 2018 at a semi-urban part of Chennai, Tamil Nadu using pretested, validated and a structured questionnaires to assess the demographic data and knowledge, attitude and practices among mothers of under 5 children. Based on a study done in Tamil Nadu, the prevalence of acute respiratory infection was found to be 59.1% (Kumar *et al.*, 2015). Using the formula $4pq/L^2$ and considering 12% of relative precision, the sample size was calculated as 192. The final sample of 204 was taken after considering a non-response rate of 5%. The mothers who were willing to participate in the study were selected from four Anganwadis

in the Thirumazhisai area in Chennai by a convenient sampling method. Informed and written consent was taken before interviewing the study subjects and after-explaining the purpose of the study. 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 KAP and selected demographic variables done on SPSS version 22.

RESULTS AND DISCUSSION

Socio-demographic details

It was observed that among 204 mothers, 77.5% were between the age of 20 – 30 years, 60% of them had total family income between Rs. 20,000 to 50,000, 48% of the mothers had an educational status of intermediate and above. It was observed that 20.6% of the family members were suffering from a respiratory infection and 13.7% had overcrowding in their homes during the time of the study. A high proportion of boys (59.3%) were observed as compared to with-girls (40.7%). 6.9% of the mothers reported inadequate ventilation in their houses (Table 1).

The KAP among mothers was observed based on

Table 2: Assessment of KAP on ARI among mothers based on their age

Variables	Age (Years)		P-value
	20-30 N (%)	>30 N (%)	
Worsening of disease			
Summer	2(1.0%)	4(2.0%)	0.040
Winter	74(36.3%)	23(11.3%)	
Autumn	16(7.8%)	2(1.0%)	
Rain	66(32.4%)	17(8.3%)	
Infections cause ARI			
Yes	51(25.0%)	24(11.8%)	0.025
No	21(10.3%)	7(3.4%)	
Don't know	86(42.2%)	15(7.4%)	
Low birth weight causes ARI			
Yes	36(17.6%)	19(9.3%)	0.010
No	32(15.7%)	12(5.9%)	
Don't know	90(44.1%)	15(7.4%)	
Pneumonia complicates ARI			
Yes	42(20.6%)	24(11.8%)	0.005
No	24(11.8%)	4(2.0%)	
Don't know	92(45.1%)	18(8.8%)	
Home remedies resolve ARI			
Yes	52(25.5%)	24(11.8%)	0.016
No	20(9.8%)	8(3.9%)	
Don't know	86(42.2%)	14(6.9%)	
Vaccines prevent ARI			
Yes	42(20.6%)	19(9.3%)	0.136
No	28(13.7%)	8(3.9%)	
Don't know	88(43.1%)	19(9.3%)	
Preference of services			
Government	69(33.8%)	9(4.4%)	0.003
Private	89(43.6%)	37(18.1%)	
Hospital Approach			
Immediately	42(20.6%)	16(7.8%)	0.034
After 2-3 days	25(12.3%)	7(3.4%)	
After it gets worse	0(0.0%)	2(1.0%)	
No illness during the study	91(44.6%)	21(10.3%)	

their age, which revealed that the mothers between the age of 20-30 years reported that the infection is more common during the rainy season (40.7%). 37.3% use home remedies during the time of infection. Subjects prefer private hospitals (61.8%) than Government hospitals (38.2%) (Table 2). 86.3% were consulting a physician during an acute respiratory infection. 91.3% were following the medication prescribed by the doctor regularly. 52.5% was taking self-medication without doctors' consultation and 59.3% were using home remedies (Table 3).

In our study, the proportion of boys (59.3%) reported to have ARI more when compared to girls (40.7%) and this finding was significant statisti-

cally and similar to various studies (Choube *et al.*, 2014; Prajapati *et al.*, 2012; Goel *et al.*, 2012). The probable reason that there is predominance among male children could be because of the tendency of male children to play outside home gets them exposed to infected aerosols from the surrounding outdoor environment when compared to female children. Majority of the subjects belonged to the age group between 20-30 years, 48% were graduated and belongs to upper-middle-class socioeconomic status scale, 82.4% belong to nuclear family and 34.3% were home maker whereas study done by Meena *et al.* revealed mean age group between 25-30 years, majority 94.5% about 26.6% were edu-

Table 3: Assessment of KAP on ARI among mothers based on their Educational qualification

Variables	Educational status				p-value
	Primary	Middle school	High school	Graduate	
	N (%)	N (%)	N (%)	N (%)	0.018
Seizures complicates ARI					
Yes	10(4.9%)	2(1.0%)	16(7.8%)	33(16.2%)	
No	4(2.0%)	8(3.9%)	4(2.0%)	13(6.4%)	
Don't know	9(4.4%)	26(12.7%)	27(13.2%)	52(25.5%)	
Ear discharge complicates ARI					
Yes	7(3.4%)	2(1.0%)	17(8.3%)	38(18.6%)	0.006
No	3(1.5%)	10(4.9%)	4(2.0%)	10(4.9%)	
Don't know	13(6.4%)	24(11.8%)	26(12.7%)	50(24.5%)	
Measles complicates ARI					
Yes	7(3.4%)	2(1.0%)	13(6.4%)	36(17.6%)	0.018
No	5(2.5%)	10(4.9%)	6(2.9%)	12(5.9%)	
Don't know	11(5.4%)	24(11.8%)	28(13.7%)	50(24.5%)	
Child have excessive drowsiness during ARI					
Yes	7(3.4%)	4(2.0%)	20(9.8%)	42(20.6%)	0.014
No	3(1.5%)	12(5.9%)	9(4.4%)	14(6.9%)	
Don't know	13(6.4%)	20(9.8%)	18(8.8%)	42(20.6%)	
Physician Consultation					
Yes	13(6.4%)	22(10.8%)	43(21.1%)	98(48.0%)	0.000
No	10(4.9%)	14(6.9%)	4(2.0%)	0(0.0%)	
Completion of a full course of treatment					
Yes	21(10.3%)	20(9.8%)	43(21.1%)	98(48.0%)	0.000
No	2(1.0%)	16(7.8%)	4(2.0%)	0(0.0%)	
Preference					
Home remedies	11(5.4%)	26(12.7%)	32(15.7%)	52(25.5%)	0.016
Ayurvedic	2(1.0%)	2(1.0%)	2(1.0%)	0(0.0%)	
Homeopathy	0(0.0%)	2(1.0%)	0(0.0%)	2(1.0%)	
Allopathy	10(4.9%)	6(2.9%)	13(6.4%)	44(21.6%)	
Self-medication					
Yes	11(5.4%)	26(12.7%)	28(13.7%)	42(20.6%)	0.015
No	12(5.9%)	10(4.9%)	19(9.3%)	56(27.5%)	

cated up to secondary level of education, 51% belongs to nuclear family and about 49.2% were of housewife (Gyawali *et al.*, 2016) which shows that mostly mothers are being educated among study subjects.

An article observed (Simiyu *et al.*, 2004) that about 87.5% reported that cold weather was the major reason for ARI whereas our study states that only 40.7% who were exposed to cold weather had ARI. This may be due to the varying climatic changes observed in different places where the study was conducted. Only 32.4% of mothers were aware of

complications regarding ARI; among them, the most common complication is Pneumonia when compared to a study which showed about 83% of mothers said the most common complication is pneumonia (Bham *et al.*, 2016).

A study reported that 29.9% were only aware of vaccines available for the prevention of ARI (Simiyu *et al.*, 2004), which also revealed about 60.2% of mothers knew measles was preventable by immunisation. (Prajapati *et al.*, 2012) showed that 21.8% used household remedies and another study (Bham *et al.*, 2016), only 6% of mothers used home reme-

dies. Whereas in the present study, nearly 37.3% used home remedies for ARI, 52.4% gave antibiotics without doctor consultation. Whereas, a study observed by (Farhad *et al.*, 2014) revealed that only 5% of them gave antibiotics without consultation. These varying changes must be mostly due to the different levels of education and awareness observed between mothers from different study locations.

CONCLUSION

It was observed that younger the age of the mother and shorter the period of marriage, there was a significant association with good knowledge about ARI prevention and its management. It was observed that male children were affected more with ARI than female children, probably due to the male children play mostly outdoor.

REFERENCES

- Bham, S. Q., Saeed, F., Shah, M. A. 2016. Knowledge, Attitude and Practice of mothers on acute respiratory infection in children under five years. *Pakistan Journal of Medical Sciences*, 32(6):32–32.
- Bhandari, D., Chowdhary, S. K. 2006. An epidemiological study of health and nutrition status of under five children in semi-urban community of Gujarat: Estimating child mortality due to Diarrhoea in developing countries. *Indian J Public Health*, 50(4):213–219.
- Choube, A., Kumar, B., Mahmood, S., Srivastava, A. 2014. Potential risk factors contributing to acute respiratory infections in under five age group children. *International Journal of Medical Science and Public Health*, 3(11):1385–1385.
- Farhad, J., Malihe, A., Fatemeh, A., Mahmood, S. 2014. The Knowledge, Attitude and Practice of Mothers Regarding Acute Respiratory Tract Infection in Children. *Biosciences Biotechnology Research Asia*, 11(1):343–348.
- Goel, K., Ahmad, S., Agarwal, G., Goel, P., Kumar, V. 2012. A cross sectional study on prevalence of Acute Respiratory Infections (ARI) in under-five children of Meerut district. *India. J Community Med Health Educ*, 2(2):2161–2161.
- Gyawali, M., Pahari, R., Maharajan, S., Khadka, R. R. 2016. Knowledge on acute respiratory infections among mothers of under five children of Bhaktapur. *Int J sci Res Publ*, 6(2):85–85.
- Healthline 2017. Acute Respiratory Infection. Updated on: 04 March 2017.
- Kumar, S. G., Majumdar, A., Kumar, V., Naik, B., Selvaraj, K., Balajee, K. 2015. Prevalence of acute respiratory infection among under-five children in urban and rural areas of puducherry, India. *Journal of Natural Science, Biology and Medicine*, 6(1):3–3.
- Nair, H., Simões, E. A. F., Rudan, I., Gessner, B. D., Azziz-Baumgartner, E., Zhang, J. S. F., Campbell, H. 2013. Global and regional burden of hospital admissions for severe acute lower respiratory infections in young children in 2010: a systematic analysis. *The Lancet*, 381(9875):61901–61902.
- Prajapati, B., Talsania, N., Lala, M., Sonalia, K. 2012. Epidemiological profile of acute respiratory infections (ARI) in under five age group of children in urban and rural communities of Ahmedabad district, Gujarat. *International Journal of Medical Science and Public Health*, 1(2):52–52.
- Simiyu, D. E., Wafula, E. M., Nduati, R. W. 2004. Mothers' knowledge, attitudes and practices regarding acute respiratory infections in children in Baringo District, Kenya. *East African Medical Journal*, 80(6):303–307.
- WHO 2019. Health Situation in the South-East Asia Region. ISBN: 978-92-9022-334-4.