

HOW DO MOTHERS RECOGNIZE AND TREAT PNEUMONIA AT HOME?

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ABSTRACT

Two hundred mothers of children under five years of age having lower respiratory tract infection were interviewed with the help of pretested unstructured questionnaire to know the danger signs perceived by her in a child suffering from pneumonia and the home remedies used by them before seeking medical help. 'Pasli Chalna' and refusal to feed were the most common symptoms perceived as dangerous. 'Pasli Chalna' correlated with retractions in 91.9% and fast breathing in 8.1% cases. Honey (25%) and Ginger (27%) were the most common home remedies used for relief of cough. Self advised medications were used by 24% mothers and majority (58.4%) gained this knowledge from mass media.

Key words: *Pneumonia, Home remedies.*

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It is now widely recognized that some 15 million under five children die prematurely each year in developing countries. Nearly one third of these deaths are due to acute respiratory infections(1). Better education of families, especially mothers, to enable them to recognize signs of pneumonia is likely to improve case detection and reduce mortality. In the initial phase of National ARI Control Programme, the Government of India does not advice health education in a big way for fear of sudden increase in the demand for health services(2). Before such education programmes about ARI are undertaken, it is imperative to understand what families already know and what makes a mother worry about a child with respiratory infection? What home available remedies they try first before seeking treatment from health facilities? This is likely to help us in preparing relevant education materials on ARI. This study was, therefore, conducted to understand the signs of pneumonia recognized by the mother and the remedies they use before coming to health facility.

Material and Methods

The present study was conducted in Kalawati Saran Children's Hospital, New Delhi between 3rd July 1991 to 15th December 1991. Children attending emergency unit were screened for the presence of pneumonia as per guidelines suggested in the National ARI Control Programme(3). Mothers of 200 such children were selected for the purpose of this study. A pretested unstructured questionnaire was used to know the distressing symptom for which the mother sought treatment for a medical facility and the type of remedies used at home before medical intervention. All cases were classified as per the standard case management guidelines(3). The symptoms perceived by the mothers were compared with the findings recorded by the

doctors. The data were analysed to know the source of information in relation to the remedies used at home.

Results

Two hundred mothers were enrolled for the purpose of the study. More than half (58%) had received at least primary educa-

TABLE I—Characteristics of Mothers Enrolled for Study (n=200)

Literacy Status	No.	%
Illiterate	84	42
Primary education	76	38
Post primary education	40	20
<i>Residential Background</i>		
Rural	42	21
Urban	116	58
Urban slums	42	21
<i>Type of Family</i>		
Nuclear	116	58
Joint	84	42

tion and majority (58%) were from urban areas (Table I).

Majority of children were between 1 to 12 months of age (64%) with 34 (17%) being less than 2 months of age and 38 (19%) above 12 months. Seventy eight (39%) children had very severe pneumonia and 97 (48.5%) had severe pneumonia. The remaining 25 (12.5%) were in pneumonia group. One hundred and fourteen (57%) mothers brought their children on their own whereas 86 (43%) were referred by private practitioners.

'Pasli Chalna' (80.5%) and refusal to take the feed (44%) in a child with cough were the two most important signs perceived as dangerous by mothers for bringing their children to the hospital (Table II).

Table III shows a correlation of symp-

TABLE II—Symptoms Perceived as Dangerous by Mothers* (n=200)

Symptoms	No.	%
Pasli Chalna	161	80.5
Fever	53	26.5
Refusal to feed	88	44
Noisy breathing	17	8.5
Cough	29	14.5

* Total number exceeds 200 as many mothers reported more than one symptom.

toms recorded by the mother with the physical examination findings recorded by the doctor. Cough and abnormal movement were the two symptoms which had 100% correlation with the physical findings. Amongst other signs 'Pasali Chalna', refusal to eat and fever were the other complaints which had good positive correlation with the findings of the doctor ($p < 0.001$). There was a mean delay of 3.4 ± 2.1 days from the onset of first symptoms to the time of seeking help from any medical facility. Ginger and honey were the most popular home available remedies tried by the mothers for cough (Table IV). However, medications were used by a good number (24%) of mothers. Efforts to find the source of knowledge regarding these medications showed that previous prescriptions for same or another child (of the family or in the neighbourhood) by a doctor (41.6%) and mass media, specially television (58.4%) were the main source of information. For other home remedies, advice by some elder, traditional beliefs and personal experience were the most frequent answers.

Discussion

That health workers can identify and manage cases of pneumonia has been amply demonstrated(4,5). Adequate home treatment

TABLE III-Correlation of Symptoms Perceived by the Mother with Clinical Findings

Symptoms	Mothers perceived		Signs (n=number in column 2)	No.	%
	No.	%			
1	2	3	4	5	6
Fever	170	85	Febrile }	141	82.9
			Afebrile }	29	17.1
Cough	200	100	-	-	-
'Pasali Chalna'	185	92.5	Retractions }	170	91.9
			Fast breathing }	15	8.1
Refusal to feed	88	44	-	-	-
Noisy breathing	58	29	Wheeze }	6	10.4
			Nasal block }	51	87.9
			Stridor }	1	1.7
Abnormal movement	9	4.5	Convulsions (Hypoxic)	9	100.0

includes not only identification of signs of pneumonia but also administration of safe home remedies and taking care of feeding and fluid requirements of the child(3). 'Pasali Chalna' was the second most common symptom (next to cough) recognized by mother in these children. This term was used for retractions and fast breathing both (Table III) but most mothers (91.9%) used it for retractions possibly because they could not identify fast breathing at an earlier stage. Refusal to feed was recognized by all mothers when it was present. However, both retractions and refusal to feed are late signs of pneumonia and are seen in advanced stage of the disease(3,6). The fast breathing which is an early sign was recognised by a very small number (15/200; 7.5%) of mothers. In addition, a large number of children were referred by the private practitioners (43%).

Whether mothers recognized the severity of illness is not very certain in these cases.

TABLE IV-Common Home Remedies.
(n=200)

Home remedies	No.	%
Ginger	54	27
Honey	50	25
Garlic	12	6
'Vics'	20	10
Hot fomentation	14	7
Chuttee	8	4
Brandy	8	4
Tulsi Patti	20	10
Jaiphal	16	8
Medications	48	24
Does not know	72	36

* Total number exceeds 200 as many mothers responded more than one symptom.

These data suggest that although majority of mothers could recognize the gravity of situation in their children, but at a late stage. This is also evident from the fact that there was a mean delay of 3.4 ± 2.1 days in seeking help from any medical facility. The emphasis in health education programme should, therefore, be on identification of early features of pneumonia, *i.e.*, fast breathing by the mothers. That the fast breathing recognized by the mothers correlates well with the presence of pneumonia was shown in an earlier study from Gambia(7). Cough, fever and noisy breathing (which in majority of babies was because of nasal block) was perceived as dangerous signs by many mothers and were cited as reasons for bringing the children to hospital.

Honey and ginger were the two most popular home remedies for cough. Self administration of medications were used by a good number of mothers (24%), the knowledge for which came predominantly from mass media especially television. This amply highlights that such advertisements on mass media need to be restrained. Health education programme, which aims at increasing family recognition of serious illness in children at an early stage, need to take family perception into account. The present study highlights some of these areas in relation to ARI. Teaching parents to notice how their babies feed, breathe and respond should improve early recognition of serious illness.

REFERENCES

1. WHO. Acute Respiratory Infections. A Guide for Planning Implementation and Evaluation of Control Programme within Primary Health Care, 1986, 29: 8.
2. Bhattacharjee J, Sharma RS, Datta KK, Verghese T. Acute Respiratory Infections and its Control (in Under Five Children). Government of India, Director General of Health Services, National Institute of Communicable Diseases, 1981, March 31.
3. Acute Respiratory infections in Children. Case Management in Small Hospital in Developing Countries. A Manual for Doctors and Other Health Workers. WHO/ARI/90: 5.
4. Bang AT, Band RA, Tale O, Sontakke P, Solanki J, Wargantiwar R, Kelzarkar P. Reduction in pneumonia mortality and total childhood mortality by means of community based intervention trial in Gadehiroli, India. Lancet 1990, 2: 201-206.
5. Kumar H , Mishra S, Sharma D. Can health workers be trained in case detection of pneumonia? Indian Pediatr 1992, 29: 499-501.
6. Shann F, Hart K, Thomas D. Acute lower respiratory infections in children: Possible criteria for selection of patients for antibiotic therapy and hospital admission. Bull WHO 1984, 51: 749-753.
7. Gampbell H, Byass P, Greenwood BM. Simple clinical signs for the diagnosis of acute lower respiratory tract infections. Lancet 1988; II: 742-743.