Original Article

Childhood Respiratory Tract Infections

Health-Seeking Behavior and Socio-Demographic Profile of Childhood Respiratory Tract Infections in Hazara Division

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ABSTRACT

Objectives: To determine the socio-demographic profile and health-seeking behavior of under-five patients suffering from childhood pneumonia.

Study Design: Cross-sectional study

Place and Duration of Study: This study was conducted at the Frontier Medical & Dental College, Abbottabad, from June, 2014 to May, 2015,

Materials and Methods: All under-five children suffering from acute respiratory tract infection were included in the study. They were diagnosed when there is a sudden onset of atleast one of cough, coryza, shortness of breath or sore throat within last seven days along-with a clinician's diagnosis of infection. Patients with chronic respiratory illnesses were excluded from the study. Respondents were mothers or caretakers of sick children. A structured and pre-tested questionnaire was used to collect data. Questions were specifically asked about literacy and occupation, composition of household, history of respiratory tract infections in last one month, date of onset and duration of symptoms, distance to health facility and mode of transport used, type of treatment modality sought and the reason/s of choosing it.

Results: Fifty three percent of patients were female while 74% were less than one year of age. Most of the caregivers were either uneducated (26.6%) or had education upto primary level (23.1%). Similarly, most of them of them were factory workers, 50.7%, and laborers, 21.8%, while only 20.1% were businessman. Most of the study participants, (97%), consulted health care provider for treatment of their child while 3% preferred self medication. Out of these, 76% consulted private facility, 21% visited public facility. There were various reasons for preferring different modes of treatment. Free medicines and lower consultation fee were the main reason for visiting dispensers and public health facility while modern health facilities and doctor's reputation were the main reason for choosing private health facility.

Conclusion: Many factors affect the health seeking attitude of caregivers of sick children. Income, occupation and education level of these caregivers play a pivotal role in choosing health care facility. Private health providers, despite being expensive, were preferred mode of treatment in our study. Government should improve public health services including emergency services. Other measures should include education of masses and increased budgetary allocations to health department which will help reduce the economic impact of childhood respiratory illnesses.

Key Words: Health-seeking behavior, childhood, pneumonia, profile.

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INTRODUCTION

Childhood acute respiratory tract infections (ARI) pose significant public health threat specifically in under-five children.[1] The estimated number of cases of childhood pneumonia was 120 million worldwide in 2010 and out of these cases, 11.9 million cases of childhood pneumonia needed inpatient care and treatment. Additionally, majority of the deaths associated with childhood pneumonia occurred in developing countries.[2] Indonesia, Bangladesh, Nepal and India collectively account for 40% of ARI-related deaths globally. About 40% visits to a clinician's office and 30% hospital admissions are attributed to these infections.[3] Hence, these infections contribute to significant morbidity and mortality especially in developing countries.

The risk of developing pneumonia is highest among infants in first three months of their life. Pneumonia accounts for about 70- 75% of deaths in infants.[4] Many risk factors are believed to be associated with the development of childhood pneumonia. These risk factors include socioeconomic (low education of

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parents, low income), demographic (age, gender and birth spacing), nutritional (malnutrition, low birth weight and absence of breast feeding) and environmental (overcrowding, exposure to cigarette smoke and biomass fuel) risk factors.[5,6] It is believed that the risk of pneumonia is high in infants exposed to passive smoke as compared to the ones who are not exposed to cigarette smoke. Similarly, Indoor air pollution is believed to be one of the main factors associated with pneumonia related deaths. Male children are more susceptible to developing pneumonia as compared to female children as well as the toddlers.[4] Prevalence of these infections is affected by different and diverse factors. Therefore, we have conducted this study is to determine the socio-demographic profile and health-seeking behavior of under-five patients suffering from childhood pneumonia.

MATERIALS AND METHODS

This cross-sectional study was conducted in Frontier Medical & Dental College, Abbottabad, from June, 2014 to May, 2015. All under-five children suffering from childhood pneumonia were included in the study which was diagnosed when there is a sudden onset of atleast one of cough, coryza, shortness of breath or sore throat within last seven days along-with a clinician's diagnosis of infection. Patients with chronic respiratory illnesses were excluded from the study. Respondents were mothers or caretakers. Informed consent was taken. A structured and pre-tested questionnaire was used to collect data. Questions were specifically asked about literacy and occupation of parents, composition of household, history of respiratory tract infections in last one month, date of onset and duration of symptoms, distance to health facility and mode of transport used, type of treatment modality sought and the reason/s of choosing it. Data was entered and organized using statistical package for social sciences, (SPSS, version 19).

RESULTS

Education level and occupation of father of sick children is given in Table 1. Most of them were either uneducated (26.6%) or had education upto primary level (23.1%). Only 4.5% were graduate or above. Similarly, 50.7% were factory workers, 21.8% were laborer and only 20.1% were businessman.

Characteristics of study population and of those children who were suffering from respiratory tract infection were given in Table 2 and Table 3. Fifty three percent of patients were female showing that there was a high preponderance of female gender. Similarly, most of the patients, 74%, were less than one year of age.

Most of the study participants, (97%), consulted health care provider for treatment of their sick child and 3% preferred self medication. Out of these, 76% consulted private facility, 21% consulted public facility, (Table 4).

Table 1. Education and occupation profile, (n=229)

Variable	Number	Percentage
Father's education level		
Uneducated	61	26.6%
Primary	53	23.1%
Middle	49	21.4%
Matric	30	13.1%
Intermediate	25	10.9%
Bachelor	08	3.5%
Master	03	1.3%
Total	229	100%
Father's occupation		
Factory workers	116	50.7%
Laborer	50	21.8%
Business	46	20.1%
Farmer	15	6.6%
Unemployed	02	0.9%
Total	229	100%

Table No.2. Characteristics of under-five children, (n=229)

Characteristic	Number	Percentage
Gender		
Male	109	47%
Female	120	53%
Total	229	100%
Age-groups (in months)		
1 – 24 months	171	74%
25 – 48	58	26%
Total	229	100%

Table No.3: Characteristics of ARI, (n=229)

Variable	Number	Percentage
Duration of symptoms of ARI		
1-3 days	118	51.5%
4-7 Days	89	39.0%
8-10 Days	22	9.6%
Total	229	100%
Frequency of ARI episodes in last month		
1-3 times	218	95.2%
4-7 times	11	4.8%
Total	229	100%

There were various reasons for preferring different modes of treatment. Free medicines and lower consultation fee were the main reason for visiting dispensers and public health facility while modern health facilities and doctor's reputation were the main reason for choosing pediatrician, (Table 5).

Majority of the patients were taken to health facility was by foot. Other modes of transport used were motorcycle, rickshaw, wagon and bicycle respectively, (Table 6).

Table No.4: Health care facility/provider consulted, (n=229)

Variable	Number	Percentage
Private health facility	174	76%
i. Dispensers	103	45%
ii. Pediatrician	71	31%
Public health facility	48	21%
i. Dispensary	30	13.1%
ii. Hospital	18	7.9%
Self-medication	07	03%
i. Medical store	04	1.74%
ii. Home remedy	03	1.36%
Total	229	100%

Table No.5: Reason of choosing different health care providers, (n=229)

Reason	Number	Percentage
Dispensers		
Free medicines	35	15.29%
Low user fee	30	13.11%
Feel satisfaction	22	9.61%
Close to home	16	6.99%
Total	103	45%
Pediatrician		
All facilities available	22	31%
Doctor is famous	17	23.94%
Feel satisfaction	15	21.12%
Quick service	12	16.90%
Good attitude	05	7.04%
Total	71	31%
Public doctor		
Free medicines	19	8.30%
Low user fee	15	6.55%
Feel satisfaction	14	6.15%
Total	48	21.00%

Table No.6: Mode of transport sought to reach health facility, (n=229)

Mode of transport	Number	Percentage
Pedestrian	138	60.2%
Motorcycle	61	27%
Rickshaw	18	7.9%
Wagon	11	4.8%
Bicycle	01	0.43%
Total	229	100%

DISCUSSION

Respiratory tract infections are among one of the chief causes of mortality in under-five children and are responsible for one fifth of childhood deaths.[6, 7] There are numerous risk factors associated with the development of these infections. Our study has shown that the majority of our study respondents was either illiterate, (26.6%), or had education up to primary level, (23.1%). Similarly, most of them, (72.5%), were workers or laborers and only 20.1% was businessman. Rehman et al have reported that 43% of their study participants were illiterate while 37% had their education up to primary level.[8] The higher rate of illiteracy which was reported by Rehman et al could be due to the fact that they have conducted their study in already deprived and underprivileged slums of Islamabad. Prajapati et al have reported that 33% of father of sick children in Ahmedabad, India, were illiterate and 44.6% of them were laborer. [9] Similarly, Peasah et al have reported that 24% of their study subjects have their education upto primary level in northern India.[1]

Most of our study participants, (76%), had chosen private health care provider either a dispenser or a pediatrician, for the treatment of their sick child. The main reason for visiting dispensers was free medicines, lower consultation fee and satisfaction with their treatment while modern facilities and doctor's reputation were the main reason for choosing a pediatrician. Public health facility, either a public dispensary or a public hospital, was consulted by 21% of study participants while 3% had preferred self-medication. The chief reason for visiting these facilities were free medicines and patient satisfaction. Our results corroborated with that of other studies. Rehman et al, in their study conducted in slums of Islamabad, have reported that 70% of their study participants consulted private health facility, 29% consulted public health facility and 01% used alternate sources. Empathetic attitude and satisfaction with the treatment were main reasons for visiting a private facility.[8] In another study conducted by Dongre et al in peri-urban areas of Wardha city, India, have shown that 73.1% of their subjects had chosen private health facility while 29.1% preferred government health facility for the treatment of their sick child.[10] It is evident that majority of caregivers preferred private facility. This could be due to the fact that private facilities are considered to be of superior and premium quality as compared to public hospitals.[11]

CONCLUSION

Many factors affect the health seeking attitude of caregivers of sick children. Income, occupation and education level of the caregivers play a pivotal role in choosing health care facility. Private health providers, despite being expensive, were preferred mode of treatment in our study. Government should improve public health services including emergency services. Other measures should include education of masses and increased budgetary allocations to health department which will help reduce the economic impact of childhood respiratory illnesses.

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

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