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Research Article

A STUDY TO ASSESS THE PREVALENCE OF UPPER RESPIRATORY TRACT INFECTION (URTI) AND ITS RISK FACTORS AMONG CHILDREN IN SELECTED HOSPITAL, GUWAHATI, ASSAM

Chungkham Bidyarani Devi[1]., Nirmali Gogoi[2] and Anamika Bhuyan[3]

[1,2]Department of Pediatric Nursing, SMCON, Assam Down Town University, Guwahati, Assam
[3]Department of Community Health Nursing, SMCON, Assam Down Town University, Guwahati, Assam

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ABSTRACT

Background: Healthy child makes healthy generation. There is a close relationship between unhealthy children to a worsened future of the world. Every year, Acute Respiratory infections (ARI- including both upper and lower) constitutes a leading cause of morbidity and mortality. Worldwide 3.9 million deaths of young children occur due to ARI every year. The study was attempted to assess

Material and method: A non experimental descriptive survey research design was carried out in selected hospital Guwahati, Assam among 100 children in Pediatric medicine OPD by using non probability convenience sampling technique. Structure tool was implemented for the study.

Result and analysis: The prevalence of URTI was found 80(80%) out of 100 sample. For assessing the demographic variables 60(60%) are 0-3 years, 96(96%) belongs upper lower class, 95(95%) belongs to mixed dietary habits, 88(88%) of them live in kutcha house and for assessing the risk factors of URTI 76 nos.(76%) did their weaning after 6 month, 36(36%) belongs to damp environment, 94 (94%) are absent from Asthma.

Discussion and conclusion: The researcher concluded that the prevalence of URTI is high and risk factors are influencing to URTI. A comparative study can be undertaken to assess the knowledge regarding transmission and prevention of acute respiratory infection & self instructional module in local languages can be prepared for educating the primary school children.

INTRODUCTION

Children are tomorrow's adults. Healthy child makes healthy generation[1]. There is a close relationship between unhealthy children to a worsened future of the world. The children are one third of our population and all of our future[2].

Respiratory diseases are a leading cause of mortality in developing countries, and one of the most common causes of illness in children of developed countries. In developed countries, viruses, including respiratory syncytial virus, adenovirus, influenza virus and Para influenza virus, are the most common cause of respiratory. Influenza affects both the upper and lower respiratory tracts which range from mild and self-limiting such as the common cold to life threatening illness like bacterial infections[3].

Worldwide 3.9 million deaths of young children occur due to ARI every year. It is estimated that Bangladesh, India, Indonesia and Nepal together account for 40% of global ARI mortality. As per WHO 2012 estimates, the causes of Child Mortality in the age group 0-5 years in India due to ARI (pneumonia) is 15%[4].

In India, about 23.6 million cases of ARI were reported in 2011, with the incidence rate of about 2,173 cases per lakh population. ARI contributes to 15-30 of all under five deaths in India and most of these deaths are preventable[5]

The child-to-child concept was launched in 1979, which was celebrated as the "year of the child". Child-to-Child was an idea that came from a group of health professionals convened by David and Hugh Hawses- that of spreading health messages through children. As David wrote: "children working together learn to understand problems, find out more about them, discuss and take action, and review the action they have taken so that they can do it better next time", the messages were

Corresponding author:* **Chungkham Bidyarani Devi
Department of Pediatric Nursing, SMCON, Assam Down Town University, Guwahati, Assam

simple but essential for savings lives, such as to teach little children about road safety, significance of hand washing etc[6].

As respiratory diseases are a leading cause of mortality and morbidity among children worldwide and child-to-child method is an effective vehicle to impart knowledge among children; the investigator felt the need to assess the effectiveness of child-to-child approach to improve the knowledge of primary school children regarding transmission and prevention of acute respiratory infection.

MATERIAL AND METHODS

A Non-experimental descriptive survey design was carried out in the month of December in Guwahati medical college hospital (GMCH), Assam after obtaining prior permission from the hospital authority. The samples were selected by non probability convenience sampling technique. The purpose of the study was explained and written consent was taken from the parents while ensuring the confidentiality of the data obtained. Data was collected by using i) Structure interview schedule on demographic characteristic. Kuppuswamy's SES scale was used to determine the socio economic status. ii) Structure questionnaire for assessing the risk factors of URTI. iii) Observational checklist to assess the of prevalence of URTI. The reliability of Structure questionnaire for assessing the risk factor of URTI was done by using split half method and by computing Spearman Brown Formula and the reliable value is r = 0.93. and observational check list for assessing the prevalence of URTI was done by inter rater observer by applying karl pearson co-efficient co-relation formula and the reliable value r = 0.91.The sampling criteria of the study are : Inclusion criteria I)Parents of children who are willing to give consent. II) Parents of children who are able to read English and Assamese. Exclusion criteria I) Children with chronic illness or congenital illness.

RESULT AND DISCUSSION

Demographic variables

Data presented in the table:1 shows the frequency and distribution of demographic variables of the samples. Majority 60 (60%) belongs to 0-3 years, with regard to gender of the child majority 70 (72%) of them are male, 66(66%) belongs to Muslim religion, 54 (54%) of them have 4-6 sibling, 69(69%) belongs to joint family, 67(67%) received information from media(radio/T.V), 51 nos.(51%) belongs to middle school certificate,51(51%) belongs to semi skilled workers, 51(51%) of them belongs to 6214-10356 income per month, majority 96(96%) belongs upper lower class, 95(95%) belongs to mixed dietary habits, 88(88%) belongs to kutcha house. The findings were supported by Prajapati B, Talsania N, Sonaliya K N.[7] (2018) in a cross sectional study on prevalence of acute respiratory tract infection. The study showed 22% low social class (26.56%), illiterate mothers (24.4%) primary (23.9%) mothers, overcrowded houses (28.5%).

Prevalence of upper respiratory tract infection (URTI)

The study reported that the prevalence of URTI (Fig 1) was 80(80%) out of 100 samples. it is consistent by Suguna E, Ganesh K, Gautam R[8] (2014) reported that overall 51.1%(203) of the subjects had the prevalence of ARI. Comparatively low prevalence showed by Maharjan PL, Sharma Y[9] (2017) 21.5 and by Islam and Sarma (26.22%) in Assam.

Risk factors of upper respiratory tract infection (URTI)

Among the risk factors (Table-2 & Fig 2 to Fig 3) showed that 72 (72%) were NVD, 63 (63%) were > 2.5 kg, 45 (45%) were exclusive breastfeeding,76(76%) did weaning after 6 month, 69(69%) belong to second hand smokers, 88(88%) have normal MUC, 36(36%) damp environment 94(94%) absent from Asthma, 41(41%) houses near the river, 85(85%) used smoky fuel, 100(100%) are partially immunized, 73(73%) does not rear pets in their house. This study supported by Alka CK, Nitin HK[10] (2017) in a hospital based cross sectional study the result shows parental smoking 84.21%. Maximum patients of ARI were having history of overcrowding 75.73%, inadequate cross-ventilation 81.87% and use of smoky chullah 78.65% in their home. 46.78% (160) were incompletely immunized and 16.37% (56) were not immunized at all. Only 36.84% (126) were completely immunized for their age.

Table 1 Frequency and percentage distribution for socio demographic variables

Sl.No.	Socio Demographic Variables	Frequency (f)	Percentage (%)
1	**Age of the child**		
	0-3 years	60	60
	4-7 years	18	18
	8-11 years	16	16
	12 and above	6	6
2	**Gender**		
	Female	28	28
	Male	72	72
3	**Religion**		
	Hindu	16	16
	Muslim	66	66
	Christian	13	13
	Others	5	5
4	**Number of sibling in the family**		
	1-3	17	17
	4-6	54	54
	6 and above	29	29
5	**Types of family**		
	Nuclear	31	31
	Joint	69	69
6	**Sources of health related information**		
	Media (Radio/ T.V)	67	67
	Family member	7	7
	Health personal	23	23
	Others	3	3
7	**Educational qualification of head**		
	Profession of honours	0	0
	Graduate or post graduate	0	0
	Intermediate or post high school diploma	0	0
	High school certificate	26	26
	Middle school certificate	51	51
	Primary school certificate	19	19
	Illiterate	0	0
8	**Occupational status of the head**		
	Profession	0	0
	Semi profession	0	0
	Clerical, shop owner, farmer	4	4
	Skilled worker	26	26
	Semiskilled worker	51	51
	Unskilled worker	19	19
	Unemployment		

	Family income per month		
9	>41430	0	0
	20715-41429	0	0
	15536-20714	4	4
	10357-15535	26	26
	6214-10356	51	51
	2092-6213	19	19
	<2091	0	0
10	**Socio economic status**		
	Upper	0	0
	Upper middle	0	0
	Lower middle	4	4
	Upper lower	96	96
	Lower	0	0
11	**Dietary habits**		
	Vegetarian	5	5
	Non vegetarian	0	0
	Mixed	95	95
12	**Types of house**		
	Kucha	88	88
	Semi pucca	10	10
	Pucca	2	2

Table no 2 Frequency and percentage distribution of risk factors of upper respiratory tract infection (URTI)

n=100

Risk factors	Frequency (f)	Percentage (%)
Parental smoking habits		
• First hand	31	31
• Second hand	69	69
Location of the house		
• Near industry	24	24
• Near river	41	41
• In the market area	31	31
• Near health care center	4	4
Cooking fuel type		
• Smoky fuel	85	85
• Smoke less fuel	15	15
Environment		
• Poor ventilation	12	12
• Over crowding	31	31
• Damp	36	36
• Presence of smoke	21	21
Family history of bronchial asthma		
• Present	6	6
• Absent	94	94
Mid upper arm circumference		
• Malnourished	12	12
• Normal	88	88

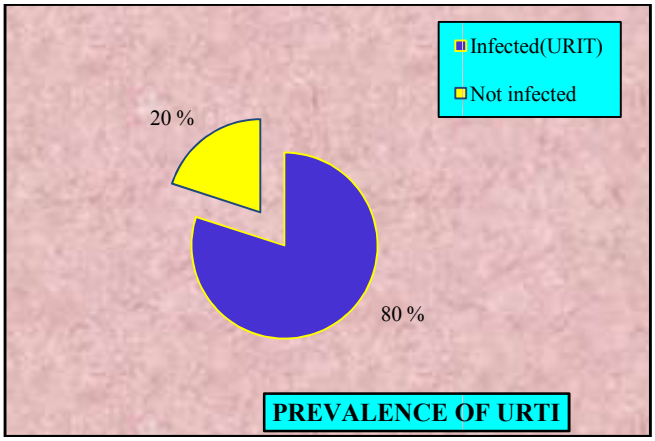

Fig 1 The prevalence of (URTI)

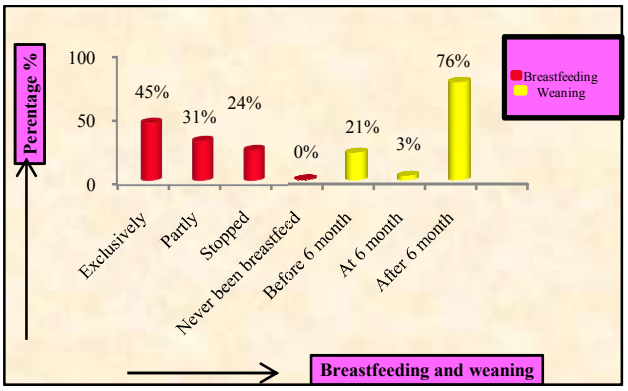

Fig 2 Percentage distribution for Breastfeeding and Weaning

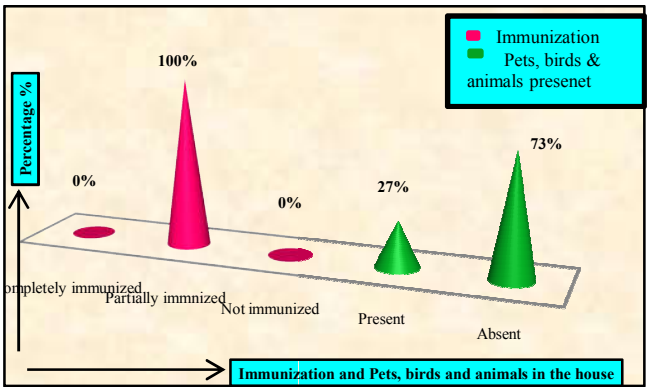

Fig 3 Percentage for Environment and Family history of bronchial asthma

CONCLUSION

The present study was conducted to assess the prevalence of upper respiratory tract infection (URTI) and its risk factors among children in selected hospital Guwahati, Assam. The findings of the study shows that majority of the children suffer from URTI which has the prevalence rate of 800%. The health can be improved through effectiveness of child to child approach of primary school children problems like accidents, anxiety, emotion, oral hygiene practices etc, and awareness on children those who take care of their younger siblings in the family set up and a self instructional module in local languages can be prepared for educating the primary school children.

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