"A Study To Assess The Knowledge Regarding Self-Care Management On Asthma Among School Children With Asthma In Selected Schools With A View To Develop An Information Booklet"

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ABSTRACT PROBLEM STATEMENT:
"A study to assess the knowledge regarding self-care management on asthma among school children with asthma in selected schools with a view to develop an information booklet."

BACK GROUND OF THE STUDY:
Asthma is a common respiratory problem among children .There are various causes for asthma among children. The burden of asthma is greatest for children aged 10-14.
The number of people with asthma in the world has increased from 235 to 334 million between our 2011 and 2016 reports. Among that 14% of the world's children were likely to have had asthmatic symptoms in the year of 2015. 8.6% of world's young adults (aged 18-45) experienced asthma symptoms.
Knowledge regarding self care management is important because it is a common childhood illness and is responsible for many hospital admissions and school absenteeism. Thus they need to be aware of themselves about the self care management of asthma. Hence the investigator is intended to conduct "A study to assess the knowledge regarding self care management on asthma among school children with asthma in selected schools at Bangalore with a view to develop an information booklet."

OBJECTIVES OF THE STUDY:
1)   To assess the knowledge regarding self care management on asthma among school children with asthma in selected schools.
2)   To determine the association between knowledge score and selected demographic variables of school children with asthma.
3)   To develop an information booklet on self care management on asthma.

HYPOTHESIS:
H0:-There is no significant association between level of knowledge and selected demographic variables.

METHODS:
*   A descriptive research design was undertaken for the study. The research variable for the study was the knowledge regarding self care management on asthma. After obtaining permission from the head teacher of 11 selected schools in Bangalore getting informed consent the researcher conducted the study. The samples for the study were 10 to 16 tears children and the sample size for the study was 100. Purposive sampling technique was utilized to select the samples. The data collection instrument was structured questionnaire to assess the*

knowledge. Descriptive and inferential statistics were used for data analysis. The level of significance was set at 0.05 levels. The collected data were entered into Excel sheet and analyzed through Statistical Package for Social Science / PC+ Ver.17.

RESULT:
The result reveals that, 66% of the respondents had poor knowledge, 34% of the respondents had moderate knowledge and none of the respondents were having adequate knowledge. Whole mean percentage was 54.8% and SD percentage was 11.5%.
Findings of the study revealed that the demographic variables such as age groups, sex, class studying, type of family, area of residence, marital status of parents and health problems in the family are found to have significant association with knowledge scores at
0.05 level of significant. Religion, family income/ month, education of parents, occupation of parents, school children suffering from asthma (years), respondents, family members suffering from asthma or not, relationship of the sufferer with the respondent are found to have non-significant association with knowledge score at 0.05 level of significant. Hence the hypothesis H0 stated that there is no association between knowledge and demographic variables is accepted.

INTERPRETATION AND CONCLUSION:
Findings of the study indicated that majority of children were having poor knowledge regarding self care management on asthma. So the investigator felt the need to provide information booklet to the school children with asthma to equip the students with adequate knowledge regarding self care management on asthma. The study had implications not only in the field of nursing, but also in other disciplines.

KEY WORDS: Knowledge, Self care management, Asthma, School children, Information booklet.

I.   INTRODUCTION

"The study of disease is really the study of man and his environment,preventionis better than cure".
- K.Park

Respiratory tract infection is a frequent cause of acute illness in infants and children. Among various pediatric infection, asthma is a very common condition inchildren.[1]

Asthma is a respiratory condition marked by attacks of spasm in the bronchi of the lungs, causing difficulty in breathing. [2]Approximately 5 million children under the age of 18 have asthma. Each year children with asthma experience restriction in daily activities like attending school, participating in play activities etc.[3]
Common asthma triggering factors can be found in schools which are dust mites, chalk dust, animals, chemicals, strong odours, airborne allergens such as pollen, animal dander, mold, cockroaches and dust mites, respiratory infections such as common cold, physical activity (exercise-induced asthma), cold air, air pollutants and irritants, such as smoke and family history.[4]The common risk factors for occurrence of asthma in children include poverty, black race, maternal smoking, large families, intense allergic exposure and respiratory infection in early childhood.[5]

The common signs and symptoms which can be seen while the children are suffering from asthma are increased night-time cough or wheezing with physical activity, tiredness with activities , [6]The common complications of asthma are bronchiectesis, emphysema, signs and symptoms that interfere with sleep, work or recreational activities, permanent narrowing of the bronchial tubes (airway remodelling) that affect breathing.[7]The lowest prevalence (<5%) was observed in theIndian subcontinent, Asia-Pacific, Eastern Mediterranean and Northern and Eastern Europe.[8]

Although the onset of asthma may occur at any age, 80% to 90% of children have their first symptoms before 4 – 8 years of age. For the period of 2008-2010, asthma prevalence was higher among children than adults in USA. In 2010, 3 out of 5 children who have asthma had one or more asthma attacks in the previous 12 months.[8]
According to Asthma Surveillance Data, number of children who were suffering from asthma was 6.8 million in USA in 2012. 8.3 % children were suffering from asthma in USA in 2013. [9] According to Times of India in 2007, 30% children were suffering from asthma in Bangalore.In 2009 we found 25.5% children were suffering from it in Bangalore. [10]

According to Union health Minister budgeting report, in 2014 about 1 out of every 12 children has asthma in India. India has 20-28 million asthmatics cases and the prevalence amongst children (5-11 years) is 10-15%. In 2014 30% of children were suffering from asthma in Bangalore. In 2015, 11% children were suffering from asthma in Delhi.[11]

It is a broad concept encompassing hygiene (general and personal), nutrition (type and quality of food eaten), lifestyle (sporting activities, leisure etc), environmental factors (living conditions, social habits, etc.) socio-economic factors (income level, cultural beliefs, etc.) and self- medication.[12]Self-management support is the care and encouragement provided to the patients who are suffering from asthma and their families to help them understand their central role in managing their illness, make informed decisions about care, and engage in healthy behaviours.[13]

The common self care management on asthma can be maintained by the allergen control, proper use of drug regimen, exercise, balanced diet, adequate oral fluid, sufficient rest, proper positioning, proper use of inhaler, personal hygiene, proper breathing habits and self emotional control etc.[14] If the asthma is untreated can lead to chronic inflammation of the bronchi. This will lead to damage. Ultimately it will hamper the quality of life.[15]Physical education activities may put school children with asthma at risk, since attacks are likely to occur full time. [16]The National Asthma Education and Prevention Program (NAEPP) was initiated in March 1989 to address the growing problem of asthma in the United States. [17]

NEED FOR THE STUDY

Allergic respiratory disorders particularly asthma are increasing in the developed and developing countries day by day and pose a serious global health problem and economic burden. Recognizing the health problem in school going children is very essential to prevent the sudden attacks from asthma.[18]Asthma is a respiratory disease involving inflammation of the airway and reversible symptoms of broncho spasm. Along with New Zealand, Australia, Ireland, the United Kingdom (UK) has one of the highest prevalence rates of asthmas in the World .[18]

India has 20-28 million asthmatics cases and the prevalence amongst children (8- 12 years) is 10-15% by 2009 report.[19]Indian Study on Epidemiology of Asthma, Respiratory Symptoms and Chronic Bronchitis (INSEARCH) has also been conducted in 2013. By this report approximately 20% to 30 % of total population is suffering from asthma at least one of these allergic diseases in India in between 2013 to 2014. [20]

According to WHO, recently India has estimated 15-20 million asthmatics patients. In India, rough estimates indicate a prevalence of between 10% and 15% in 5-11 year old children in2016.[21]
According to Global asthma report, the number of people with asthma in the world is becoming as high as 334 million. These numbers may not be precise; rather they are estimated from the best data available. The number of people with asthma in the world has increased from 235 to 334 million between our 2011 and 2015 reports.[22] In 2016, approximately, 1 in 15 or 6.40% or 17.4 million people in USA are suffering from asthma. Among them 8.1 million children are suffering from asthma now days. [23]According to WHO, between 100 and 150 million people around the world are suffering from asthma in 21st century and this number is rising. World-wide, deaths from this condition have reached over 180,000 annually.[21]

As a student researcher when I was doing my clinical posting in pediatric ward I observed so many children were suffering from asthma and they have lack of knowledge regarding self care management on asthma. Hence I felt that the study regarding the knowledge on self care management on asthma will throw light on the level of knowledge.

II. PROBLEM STATEMENT

"A study to assess the knowledge regarding self-care management on asthma among school children with asthma in selected schools with a view to develop an information booklet".

OBJECTIVES OF THE STUDY:

1)   To assess the knowledge regarding self care management on asthma among school children with

asthma in selected schools.

2)   To determine the association between knowledge score and selected demographic variables of school children with asthma.

3)   To develop an information booklet on self care management on asthma.

ASSUMPTIONS:

It is assumed that school children with asthma may have some knowledge regarding self caremanagement on asthma.

HYPOTHESES:

H0:-There is no significant association between level of knowledge and selecteddemographicvariables.

SAMPLING CRITERIA:

INCLUSION CRITERIA:

Children who:-

1)   Are available at the time of data collection.

2)   Can understand Kannada or English.

3)   Are willing to participate in the study.

EXCLUSION CRITERIA:

Children with asthma who:

1.   Are not willing to participate in the study.

2.   Have already attended any awareness program.

DELIMITATIONS OF THE STUDY:

1)   The study is done only among the children with asthma in selected schools,Bangalore.

2)   The study sample is limited to 100 samples only.

CONCEPTUAL FRAME WORK

Health Promotion Model (Fig.1)
        The conceptual framework of present study is based and designed on the concept of "Health Promotion Model" proposed by Nola J Pender (1982; revised 1996 (Fig.1). It identifies the cognitive perceptual factors in the individual that are modified by situational, personal and interpersonal characteristics to result in health promoting behaviour in the presence of cues to action.

III. REVIEW OF LITERATURE

"Review of literature involves the systematic identification, location, scrutinizing and summary of written materials that contain information on research problem".34

The literature reviewed for the present study is organized and presented under the following headings:

> 1) Reviews related to prevalence of asthma among children.
> 2) Reviews related to knowledge of school going children regarding asthma.
> 3) Reviews related to causes and predisposing factors of asthma.

4) Reviews related to self care management and prevention of asthma.

1. ***Reviews related to prevalence of asthma among children:***

A study was conducted on prevalence of asthma in urban and rural children in Tamil Nadu. The aim of the study was to estimate the prevalence of asthma in children under 12 years of age and to study possible differences in the prevalence of childhood asthma in urban and rural areas of Tamil Nadu. A total of 584 children from Chennai and 271 children from 25 villages around Chennai participated in the study. Data were collected using a simplified version of the questionnaires. The result of the study showed that the overall prevalence of breathing difficulty (including asthma) was 18% and the prevalence of 'diagnosed' asthma was 5%. Twenty-two per cent of urban and 9% of rural children 6-12 years of age reported breathing difficulty. Symptoms suggestive of asthma were present in 18% of children under 12 years of age. The prevalence of diagnosed childhood asthma was about 5% in both urban and rural areas. It was concluded that the actual prevalence of asthma and other 'wheezy' illnesses may be higher than that previously documented.[24]

A study was done on prevalence of bronchial asthma among Indian children. The objective of the study was to assess time trends and the overall prevalence rate of bronchial asthma among Indian children. The method was used literature search for data sources and website-based population survey method. Statistical analyses used were mean and median. The result of the study showed that the mean prevalence was $7.24 \pm SD\ 5.42$. The median prevalence was 4.75% .Overall weighted mean prevalence was found to be 2.74. Childhood asthma among children 13 - 14 years of age was lower than the younger children (6 - 7 years of age). It was concluded that the burden of bronchial asthma in Indian children was higher than was previously understood.[25]

2) ***Reviews related to knowledge of school children regarding asthma:***

A study was done to assess the children's knowledge regarding preventive asthma medications, reasoning about asthma, responsibility for management. The objective of the study was to assess the children adherence to preventive asthma medications; to investigate relations between knowledge, reasoning about asthma, and responsibility for management and adherence. Interview method has been applied to assess the knowledge and reasoning about asthma. The participant was 106 children with asthma. Children were interviewed to assess the knowledge and reasoning about asthma. The result of the study revealed that children's adherence was approximately 48% of prescribed doses. Adherence was negatively related to age ($r = -.21$, $p<.05$); minority status, $F(1, 98) =7.55$, $p<.01$; Age was associated with increased child knowledge ($r =.47$, $p<.001$), reasoning about asthma ($\tau =.23$, $p<.01$), and responsibility for asthma management ($r = .44$, $p< .01$). These variables were not associated with adherence. It was concluded that although older children know more about asthma and assume more responsibility for disease management, their adherence was lower than that of younger children. [26]

3) ***Reviews related to causes or predisposing factors of asthma:***

A prospective study was focused on prevalence and risk factors of asthma and wheeze in school-going children in Lucknow, North India. The aim of the study was to assess the prevalence of asthma and wheeze and factors associated with it in children aged 6-7 and 13-14 years. School based survey was done by using pre-designed questionnaires. A sample size of 112 schools, 17 and 15 schools were randomly selected for recruitment of subjects in age group 6-7 and 13-14 years school going children respectively. The result showed that prevalence of asthma and wheeze reported were 2.3% and 6.2%, respectively, in age group 6-7 years and 3.3% and 7.8%, respectively, in age group 13-14 years. It was concluded that the reduction of rational use of antibiotic in first year of life, more intake of fast food and reduction of breast feeding and less intake of fruits and vegetables may induce the risk of asthma among school going children.[27]

4) ***Reviews related to self care management and prevention of asthma:***

A study was done on practitioner-based asthma intervention program with African American inner-city school children. The objective of the study was to assess the efficacy of the teen educational asthma self care management (TEAM) program. This study tested a two-part intervention on selected psychosocial and health outcomes of 8- to 13-year-old inner city minority students with asthma. The total sample of 52 children was composed of 28 children in the treatment group and 24 children who served as a control group. The result was students in the treatment group scored significantly higher than the control group over time on measures of asthma knowledge, asthma self-efficacy, general self-care management, and asthma self-care practices. It was concluded that a school based intervention program can improve psychosocial outcomes for inner-city

minority children with asthma .[28]

IV.METHODOLOGY

Research methodology aims at helping the researcher to answer the research questions effectively, accurately and economically, studying how research is done scientifically.

RESEARCH APPROACH:

The choice of the research approach depends on the purpose of the study**.** A research approach tells the nurse researcher what data to be collected and how to analyze it. It also suggests possible conclusion to be drawn from the data. In view of the nature of the problem selected for the study and objectives to be accomplished, a quantitative research approach was considered as appropriate for the present study.

RESEARCH DESIGN:

Research design provides the back bone structure of the study. According to Polit and Hungler (1999) the term research design refers to the researchers overall plan for obtaining answers to the research questions. In this study, the investigator uses the Descriptive design to assess Knowledge regarding self care management on asthma.

VARIABLES UNDER STUDY:

An attribute of a person/ object that varies is called a variable. Two types of variables are identified in this study:-

a)   Research variable:

In the present study the research variable is the knowledge regarding self care management on asthma.

b)   Demographic variable:

In the present study the demographic variable includes age , sex ,religion, class, type of family, father and mother's educational status, parents occupation, number of siblings , monthly income,   presence of asthma-yes or no, if yes since   how many yrs , management at home , previous knowledge about asthma , source of information, type of house, no of windows, pet animals and plants and sports.

SETTING OF THE STUDY:

The study was conducted in selected 11 schools at Bangalore. The name of the schools are Angels High School, Florence High School, Sarvodaya National Public School, Havanur Public School, New Public School, Sri Vasavi Vidya Pith, Ramanashree English School, The New Cambridge High School, St.Thomas High School, Sri Adichunchanagiri High School and Whitehill High School The setting is selected because of availability of samples, feasibility of conducting study and ethical clearance.

POPULATION:

The target population is the entire population in which the researcher is interested and to which he or she would like to generalize the results of a study. The total population of selected 11 schools in Bangalore is 4661. The target population for the present study was school children with asthma. Accessible population for the present study was school children with asthma in selected schools at Bangalore.

SAMPLE AND SAMPLE SIZE:

The sample was 100 school children in the age group 10 to 16 years who fulfill the inclusion criteria studying in selected 11 schools at Bangalore.

SAMPLING TECHNIQUE:

Purposive sampling technique entails using the most purposively chosen school children with asthma as study participants. Hence, purposive sampling technique was found to be appropriate for this study.

CRITERIA FOR SAMPLE SELECTION:

Sampling criteria is that which specifies the characteristics that the sample of the population must possess. The following criteria are used in the present study to select samples.

Inclusion criteria:
Children who:-

1)   Are available at the time of data collection.

2)   Can understand Kannada or English.

3)   Are willing to participate in the study.

Exclusion criteria:
Children with asthma who:

1.   Are not willing to participate in the study.

2.   Have already attended any awareness program.

DATA COLLECTION PROCESS:
Phase-1

The investigator got permission to conduct the study from the selected schools at Bangalore.
Phase-2

The investigator established rapport followed by self-instruction given to the subject, the nature of the study; confidentiality and cooperation required were explained to the subjects. The investigator conducted main study by selecting 100 samples from the selected 11 schools at Bangalore.
Phase-3

After getting consent, the investigator administered the Structured Questionnaire Data collected was processed every day.
Description of tool:

The researcher used structured questionnaire to assess knowledge of children regarding self care management on asthma.
Steps in construction of the tool:

The following steps were carried out in preparing the tool.

➢   Related literature was reviewed in preparing the tool.

➢   Guidance and consultation of the subject experts was taken for construction of tool.

➢   Construction with statistician was done for data analysis.

➢   Test and retest was done for reliability by a pilot study in the same area.

DESCRIPTION OF THE TOOL:

The tool organised into two parts:

Structured Knowledge questionnaire to assess the level of knowledge on self care management on asthma among school children with asthma:

This section consists of 42 items to assess the level of knowledge on self care management on asthma among school children with asthma in part I, II, on knowledge on self care management on asthma.

Part 1: Consists of 9 questions regarding general information of asthma. Part 2: Consists of 33 questions

regarding self care management on asthma. Items were constructed in consultation with experts in the field of pediatric health nursing after reviewing literature and non research literature. Then a blue print was constructed and based on blue print the items were constructed. Each item had four alternative responses, out of which the respondents were requested to select and encircle the number against the best possible answer.

Scoring Procedure:

These items were given one score for correct answer and zero score for wrong answer.Total score was 42. According to this study the total score was classified as follows:
Inadequate knowledge - ≤ 50% Moderate knowledge - 51%-75%Adequate knowledge - ≥ 75% **Preparation of the Blue Print:**

A blue print was prepared for the construction of structured questionnaire based on which items were developed. It depicted the distribution of items according to the content areas.
Structured questionnaire includes three domains:

- Knowledge- 42.86%

- Comprehension- 26.19%

- Application- 9.52%

- Synthesis- 21.43%

VALIDITY OF THE TOOL:

For the each criteria 1 to 4 responses column was prepared for rating.

- Very relevant.

- Relevant.

- Not relevant.

- Needs modification.

RELIABILITY OF THE TOOL:

Reliability of on instrument is the degree of consistency with which it measures the attribute it is supposed to measure.

PILOT STUDY:

The pilot study was conducted in Bharatiya Sanskriti Vidya Pith, Vijayanagar, Bangalore.The investigator obtained prior permission from the authority. Ten school children with asthma were selected purposively and administered questionnaire by using structured questionnaire on self-care management on asthma for pilot study. The finding of the pilot study revealed that tool was satisfactory in terms of simplicity, clarity and found feasible to conduct main study. Therefore the investigator decided to carry out the actual study process with reduce some tool question.

DATA COLLECTION PROCESS:

The investigator introduced self to the subjects and explained the purpose of the study. Instructions were given and the tool was administered. Structured Questionnaire was used to assess Knowledge. Time to fill up the questionnaire was given as per the respondent's request. After collecting the filled forms, the answers were given and respondents were thanked.
The investigator distributed information booklet on self care management on asthma among school children with asthma.

PLAN FOR DATA ANALYSIS:

The data to be analyzed is planned on the basis of objective of the study. Descriptive and inferential statistics was used to analyse the data.

PROTECTION OF HUMAN RIGHTS:

The proposed study was conducted after the approval of Dissertation committee of the college. Permission was obtained from the headmaster/headmistress of 11 selected schools at Bangalore. The written consent of the children participant was obtained before the data collection.

V. RESULTS

The collected data are tabulated in the master sheet and analyzed by using descriptive andinferential statistics.

Organization of the findings and presentation of data analysis:

Analyzed data is organized and presented in the following sections:

SECTION-I

Analysis pertaining to the demographic characteristics of school childrenwith asthma
Table-1: Frequency and Percentage Distribution of Respondents according to Age group (years), Sex, Class studying, Type of family, Area of residence, Religion, Familyincome/ month of school children with asthma

N=100

Characteristics	Category	Respondents	
		Number	Percent
Age group (years)	11-12	32	32.0
	13-14	50	50.0
	15-16	18	18.0
Sex	Male	56	56.0
	Female	44	44.0
Class studying	6-7th Std	54	54.0
	8-9 Std	40	40.0
	10th Std	6	6.0
Type of family	Nuclear	81	81.0
	Joint	19	19.0
Area of Residence	Urban	92	92.0
	Rural	8	8.0
Religion	Hindu	88	88.0
	Christian	2	2.0
	Muslim	6	6.0
	Others	4	4.0
Family income/month	Below Rs. 5,000	10	10.0
	Rs.5,001-10,000	42	42.0
	Rs.10,001-20,000	33	33.0
	Above Rs.20,000	15	15.0
Total		100	100.0

Table – 2: Frequency and Percentage Distribution of Respondents according to Maritalstatus of parents,

Education of parents, Occupation of parents.

N=100

Characteristics	Category	Respondents	
		Number	Percent
Marital status ofparents	Living separately	6	6.0
	Living together	94	94.0
Education of Father	Illiterate	3	3.0
	Primary	23	23.0
	Secondary	40	40.0
	Graduate	34	34.0
Education of Mother	Illiterate	4	4.0
	Primary	27	27.0
	Secondary	43	43.0
	Graduate	26	26.0
Occupation of Father	Government	20	20.0
	Private	33	33.0
	Self employed	47	47.0
Occupation of Mother	Government	6	6.0
	Private	9	9.0
	Self employed	10	10.0
	Housewife	75	75.0
Total		100	100.0

TABLE – 3: Frequency and Percentage Distribution of Respondents by School children Suffering from Asthma (years), Family members Suffering from Asthma, Relationshipand Health problems in family.

N=100

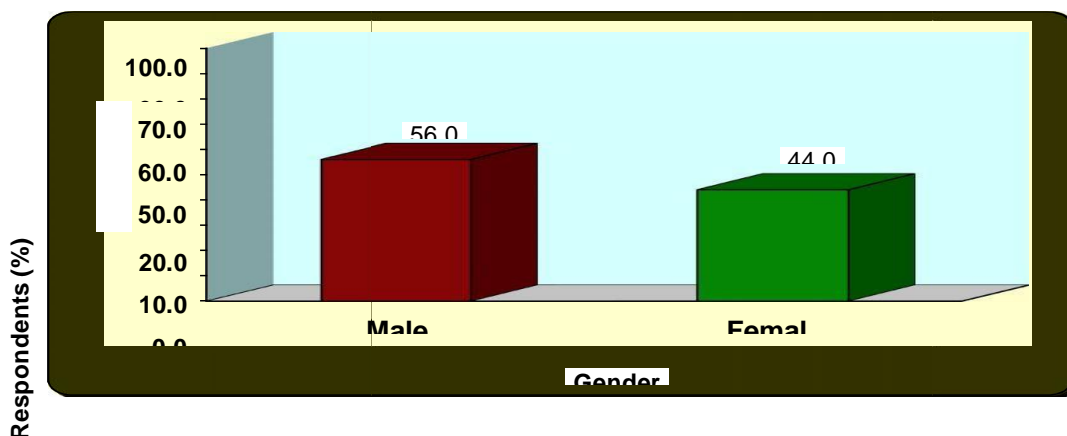| Characteristics	Category	Respondents	
		Number	Percent
School children sufferingfrom Asthma (years)	From Childhood	17	17.0
	1-2	41	41.0
	3-4	21	21.0
	5	10	10.0
	Above 5	11	11.0
Family members suffering from Asthma	Yes	38	38.0
	No	62	62.0
Relationship	Parents	32	32.0
	Siblings	4	4.0
	Others	2	2.0
Health problems in family	Yes	54	54.0
	No	46	46.0

Fig 4: The bar diagram represents the frequency and percentage distribution of respondents according to their gender

The above figure depicts that 56% of the respondents were male and 44% were female.
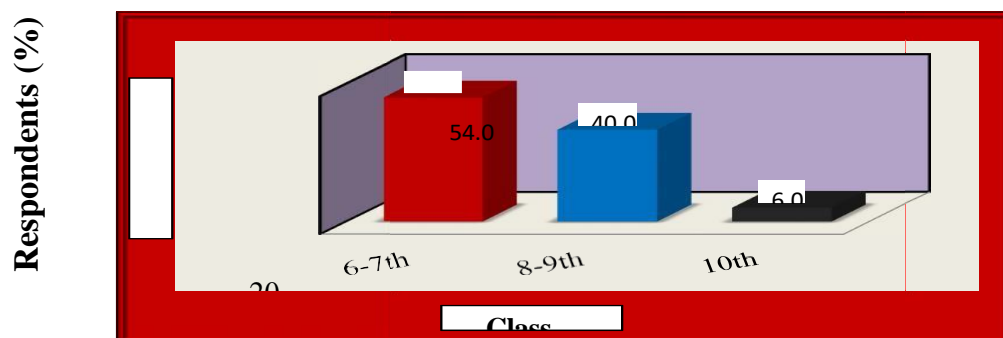

Fig 5: The bar diagram indicates frequency and percentage distribution of respondents according to their class of studying

The above figure depicts that 54 % of the respondents were studied in the 6-7th standard, 40% of the respondents were studied in the 8-9th standard and 6% of the respondents were studied in the 10th standard

Analysis pertaining to knowledge level of respondents on Self-care management onAsthma
Table-4: Frequency and percentage distribution of aspect wise Knowledge level ofrespondents on Self care management on Asthma

N=100

| No.	Knowledge Aspects	Knowledge Level						Total	
		Inadequate		Moderate		Adequate			
		N	%	N	%	N	%	N	%
I	General aspects ofAsthma	57	57.0	40	40.0	3	3.0	100	100.0
II	Self care managementon Asthma	40	40.0	60	60.0	0	0.0	100	100.0
	Overall	66	66.0	34	34.0	0	0.0	100	100.0

Table-5: Aspects wise Mean knowledge level of respondents on Self care management onAsthma

N=100

No.	Aspects	Statements	Range	Max.Score	Respondents Knowledge			
					Mean	SD	Mean(%)	SD (%)
I	General aspects ofAsthma	9	1-9	9	5.66	1.69	62.9	18.8
II	Self care managementon Asthma	33	6-26	33	17.37	3.99	52.6	12.1
	Combined	42	7-31	42	23.03	4.84	54.8	11.5

Table-6: Overall Knowledge Scores of respondents on Self care management onAsthma

N=100

KnowledgeLevel	Category	Respondents	
		Number	Percent
Inadequate	≤ 50 % Score	66	66.0
Moderate	51-75 % Score	34	34.0
Adequate	> 75 % Score	0	0.0
Total		100	100.0
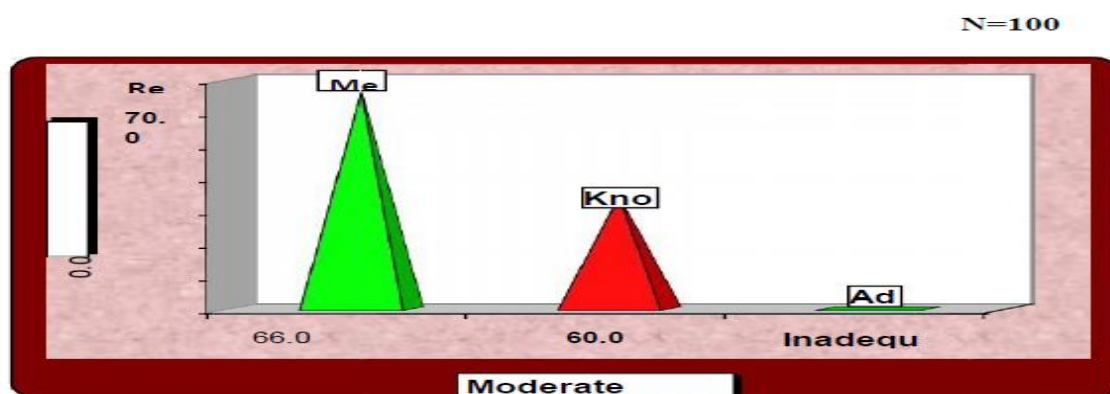
The bar diagram indicates frequency and percentage distribution of Respondents Knowledge level on Self care management on Asthma

The above bar figure depicts that 66% of the respondents had inadequate Knowledge level regarding Self care management on Asthma. 34% of the respondents had moderate knowledge level regarding self care management on asthma. None of the respondents (0%) had adequate knowledge level regarding self care management on asthma.

Section-III
Analysis pertaining to association between knowledge and selected demographicvariables
Table-7: Association between Selected demographic variables like Age group, Sex,Class studying, Type of family, Area of Residence, Religion, Family income and Knowledge level on Self care management on Asthma

N=100

DemographicVariables	Category	Sample	Knowledge Level				χ² Value	P Value
			Inadequate		Moderate			
			N	%	N	%		
Age group (years)	11-12	32	16	50.0	16	50.0	6.42*	P>0.055.99 df=2
	13-14	50	35	70.0	15	30.0		
	15-16	18	15	83.3	3	16.7		

Sex	Male	56	32	57.1	24	42.9	4.45*	P<0.053.84 df=1
	Female	44	34	77.3	10	22.7		
Class studying	6-7 th Std	54	30	55.6	24	44.4	7.16*	P<0.055.99 df=2
	8-9 Std	40	30	75.0	10	25.0		
	10 th Std	6	6	100.0	0	0.0		
Type of family	Nuclear	81	49	60.5	32	39.5	5.76*	P<0.053.84 df=1
	Joint	19	17	89.5	2	10.5		
Area of Residence	Urban	92	64	69.6	28	30.4	6.51*	P<0.053.84 df=1
	Rural	8	2	25.0	6	75.0		
Religion	Hindu	88	59	67.1	29	32.9	0.73 NS	P>0.057.82 df=3
	Christian	2	2	50.0	1	50.0		
	Muslim	6	4	66.7	2	33.3		
	Others	4	2	50.0	2	50.0		
Family income/month	Below Rs. 5,000	10	5	50.0	5	50.0	3.05 NS	P>0.057.82 df=3
	Rs.5,001-10,000	42	29	69.1	13	30.9		
	Rs.10,001-20,000	33	20	60.6	13	39.4		
	Above Rs.20,000	15	12	80.0	3	20.0		
Combined		100	66	66.0	34	34.0		

*   Significant at 5% Level,   NS: Non-significant

TABLE – 8: Association between Selected demographic variables like Marital status of parents, Education of Parents, Occupation of Parents, School children suffering from Asthma(Years), Family members suffering from Asthma, Relationship, Health problems infamily and Knowledge level on Self care management on Asthma

N=100

Demographic Variables	Category	Sample	Knowledge Level				χ^2 Value	P Value
			Inadequate		Moderate			
			N	%	N	%		
Marital status ofparents	Living separately	6	1	16.7	5	83.3	6.92*	P<0.053.84 df=1
	Living together	94	65	69.1	29	30.9		
Education of Father	Illiterate	3	1	33.3	2	66.7	2.02 NS	P>0.057.82 df=3
	Primary	23	14	60.9	9	39.1		
	Secondary	40	28	70.0	12	30.0		
	Graduate	34	23	67.6	11	32.4		
Education of Mother	Illiterate	4	1	25.0	3	75.0	5.37 NS	P>0.057.82 df=3
	Primary	27	21	77.8	6	22.2		
	Secondary	43	26	60.5	17	39.5		
	Graduate	26	18	69.2	8	30.8		
Occupation of Father	Government	20	13	65.0	7	35.0	1.06 NS	P>0.055.99 df=2
	Private	33	24	72.7	9	27.3		
	Self employed	47	29	61.7	18	38.3		
Occupation of Mother	Government	6	4	66.7	2	33.3	0.73	P>0.057.82

	Private	9	7	77.8	2	22.2	NS	df=3
	Self employed	10	6	60.0	4	40.0		
	Housewife	75	49	65.3	26	34.7		
School children suffering from Asthma (years)	Childhood	17	11	64.7	6	35.3	2.94 NS	P>0.059.49 df=4
	1-2	41	28	68.3	13	31.7		
	3-4	21	11	52.4	10	47.6		
	5	10	8	80.0	2	20.0		
	Above 5	11	8	72.7	3	27.3		
Members suffering from Asthma	Yes	38	25	65.8	13	34.2	0.01 NS	P<0.053.84 df=1
	No	62	41	66.1	21	33.9		
Relationship	Parents	32	20	62.5	12	37.5	2.46 NS	P>0.057.82 df=3
	Siblings	4	4	100.0	0	0.0		
	Others	2	1	50.0	1	50.0		
	No	62	41	66.1	21	33.9		
Health problems in family	Yes	54	41	75.9	13	24.1	5.15*	P<0.053.84 df=1
	No	46	25	54.3	21	45.7		
Combined		100	66	66.0	34	34.0		

* Significant at 5% Level,   NS : Non-significant

VI. DISCUSSION

The obtained data were entered into master sheet for tabulation and statistical processing. The findings of the study had been discussed with reference to the objectives and with findings of other related literature/ studies. The analysis of data was organized and presented under the following aspects.
Section-1: Demographic characteristic. Section-2: Objectives of the study.

SECTION- 1

DEMOGRAPHIC CHARACTERISTICS OF SCHOOL CHILDREN WITH ASTHMA:
❖ In relation to the age, 32 %of the subjects were in between the age group of 11-12 years, 50

% of the subjects were in between the age group of 13-14 years, 18 % of the subjects were in between the age group of 15-16 years.
❖ With regard to gender, 56% were male and 44% were female.

❖ In concern to class studying, 54% school children were studying in 6-7 standard, 40% school children were studying in 8-9 standard and 6% were studying in 10th standard.
❖ With regard to type of family, 81% of the subjects were staying in nuclear family and 19% of the subjects were staying in joint family.
❖ In relation to the residence, 92% of the subjects were staying in urban area and 8 % of the subjects were staying in rural area.

❖ In concern to religion, 88% were Hindu, 2% were Christian, 6% were Muslim and 4% were under other religions.
❖ In relation to family income, 10% of the school children's parents had Rs.5,000 income per month, 42% had Rs.5,001-10,000 income per month, 33% had Rs.10,001-20,000 income per month and 15% had above Rs.20,000 income per month.
❖ In relation to the marital status of parents, 6% of the school children with asthma were living separately and 94% were living together.
❖ In relation to education of father 3% were illiterate, 23% had primary level of education, 40% had

secondary level of education and 26% completed graduate degree.

❖ In relation to education of mother 4% were illiterate, 27% had primary level of education, 43% had secondary level of education and 26% completed till graduate degree.

❖ In relation to occupation of father, 20% fathers of school children with asthma were government employee, 33% fathers were private employee, and 47% fathers were self employee.

❖ In relation to occupation of mother, 6% mothers of school children with asthma were government employed, 9% were private employed, 10 % were self employed, and 75 % were housewife.

❖ In relation to children's suffering from Asthma (years), 41 % school children were suffering from asthma from 1 to 2 years, 21 % children were suffering from 3 to 4 years, 10% children were suffering from 5 years, 17% children were suffering from above 5 years, 11% children were suffering from childhood.

❖ In relation to children's family members suffering from asthma, 38% of the children's family members were suffering from asthma, 62% of the children's family members were not suffering from asthma.

❖ In relation to the relationship of the asthma sufferer person with the children, 32% of the school children's parents were suffering from asthma, 4% of the school children's siblings were suffering from asthma and 2% of the school children's other relatives were suffering from asthma.

❖ In relation to the health problems in school children's family, 54% of the school children's family members had health problems, 46% of the school children's family member had noany health problems.

SECTION-2

1) The first objective was to assess the knowledge regarding self-care management on asthma among school children with asthma in selected schools:
The 100 school children with asthma were assessed with structured questionnaire, which contains of 42 items. The study results showed that 66 school children with asthma (66%) had inadequate knowledge regarding asthma, 34 school children with asthma (34%) hadmoderate knowledge regarding asthma and none of the school children (0 %) had adequate knowledge regarding asthma.

2) The second objective of the study was to determine the association between knowledge score and selected demographic variables of school children with asthma:
The association between knowledge and demographic variables revealed that among the demographic variables analyzed in this study regarding age group, sex, class studying, type of family, area of residence, marital status of parents and health problems in family were found to have significant association with knowledge scores at 0.05 level of significant. Religion, family income/month, education of parents, occupation of parents, children suffering fromasthma (years), family members suffering from asthma or not, relationship of the member with the child and health problems in the family were found to have no significant association with knowledge score at 0.05 level of significant .

3) The third objective of the study was to develop an information booklet on self care management on asthma:

Among 100 participants, majority of the respondents were having inadequate knowledge (66%), and moderate knowledge (34%) but none of the respondents have adequate knowledge about self care management on asthma. So, it is necessary to aware them about self care management on asthma in order to inculcate good selfcare practices to get rid of sudden attack of asthma. To achieve this, Information booklet was prepared on "Self Care Management on Asthma" and given to the school children with asthma.

VII. CONCLUSION

Major findings of the study: Demographic variables (sample characteristics): Demographic variables revealed that in relation to the age, majority 50 % of the subjects were in the age group of 13-14 years. With regard to gender, majority 56% was male and 44% were female. In concern to class studying, majority 54% school children were studying in 6-7 standards. With regard to type of family, majority 81% of the subjects were staying in 107 nuclear family. In relation to the residence, majority 92% of the subjects were staying in urban area. In concern to religion, majority 88% were Hindu. In relation to family income, majority 42% were having Rs.5,001-10,000 income per month.

In relation to the marital status of parents, majority 94% were living together. In relation to education of father, majority 40% had secondary level of education. In relation to education of mother, majority 43% had secondary level of education. In relation to occupation of father, majority 47% fathers were self employed. In relation to occupation of mother, majority 75 % were housewife. In relation to children's suffering from Asthma (years), majority 41 % school children were suffering from asthma from 1 to 2 years. In relation to children's family members suffering from asthma, majority 62% of the children's family members were not suffering from asthma .

In relation to the relationship of the family members with the children, majority 32% of the school children's parents were suffering from asthma. In relation to the health problems in school children's family, majority 54% of the school children's family members were having health problems.

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