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Early Identification of Respiratory Problem in School Age Children (8-10yrs) at Selected Schools in Neyveli Village, Thiruvallur District

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Abstract: ***Respiratory diseases represent the most common cause of death in children below 12 years. In this a large number accounts to be obstructive airway disease. so, authors planned to measure PEFR in healthy school going children between 8 and 10 years and correlate PEFR against various parameters such as height, weight, sex, age, chest circumference, and family history of asthma. aim of the study is to early identification of respiratory problem among school going children. Method: 100 Samples of school going children's who met the inclusion criteria were selected by using purposive sampling technique. After selecting the sample, the investigator explain the purpose of the study and informed consent was obtained from the parents and care takers. Demographic variables are collected by using the peak expiratory flow rate (PEFR) was done for school going children's to check the lung function. the data were tabulated and analysis by descriptive and inferential statistics. Results: The result Shows in frequency and percentage distribution of respiratory problem among school age children. (59%) are having mild respiratory problem, (37%) are having moderate respiratory problem, (4%) of them having severe respiratory problem. The result shows that the age, gender, weight, heart rate, systolic blood pressure, family history of asthma and allergic or chest injuries has no Statistical significance at p>0.05 and the respiratory rate has statistical significance at p<0.05. Conclusion: The peak expiratory flow rate (PEFR) application is effective for school going children. Is early identification of respiratory problem and helps in Respiratory assessment, Respiratory problem treatment and follow up.***

Keywords: School going children, peak expiratory flow rate (PEFR).

1. Introduction

Respiratory diseases represent the most common cause of death in children. In this a large number accounts to be obstructive airway disease. Allergic respiratory disorders in particular asthma are increasing in prevalence, which is a global phenomenon. Even though genetic predisposition is one of the factor in children for increased prevalence, urbanization , air pollution and environment are the reason for respiratory disorders . Prevalence of asthma in Indian children is found to be as high as 4.75%. Pulmonary function tests of various types are utilized clinically as well as epidemiologically to measure functional status of respiratory system. This study aims to construct a normal PEFR value in both sexes in the age group of 8-10 years according to height, weight in normal children and for comparison with other studies carried out in and health problem which exerts a substantial burden on the available about PEFR in children. (Mishra shubhankar), 2015.

In lung function test, epidemiology takes an vital role to ensure that population from which regression equation was derived as many variables can affect PEFR. Ideally children of different countries, belonging to different races should have different nomograms. Unfortunately, specific nomograms showing PEFR values for normal children are not available in all parts of India. If such data for children in different areas of India will be available, it would be immensely helpful in diagnosing, monitoring and managing asthma in children, which has been in an increasing trend in recent times. So, authors planned to measure PEFR in healthy school going children between 8 and 10 years and correlate PEFR against various parameters such as height, weight, sex, age and chest circumference.(Prabakar Durairaj), 2017.

2. Objectives

- To obtain the normal reference values of peak expiratory flow rate (PEFR) among the healthy school going children between (8-10) years.
- To assess the clinical variables: PFR and respiratory rate values. Green (80-100%), yellow (50-59%), red (<50%)
- To associate the PEFR among school going children selected physiological parameters with demographic variable.

3. Methods and Materials

A descriptive study was chose to assess and early identify the respiratory problem among school children. By using the PEFR- flow meter.100 samples were selected by purposive sampling technique. Who comes under the inclusion criteria. Data was collected by using demographic variables which include age, sex, gender, weight, respiratory rate, heart rate, systolic blood pressure, family history of asthma, and allergic or chest injuries. The tools were collected Informed consent was obtained and data was collected from the samples. The data were inferential statistics

4. Results

Table 1: Among 100 children (59%) are having mild respiratory problem, (37%) are moderate respiratory problem, and (4%) are having severe respiratory problem

Level of respiratory problem	Frequency	Percentage
Mild respiratory problem	59	59%
Moderate respiratory problem	37	37%
Severe respiratory problem	4	4%

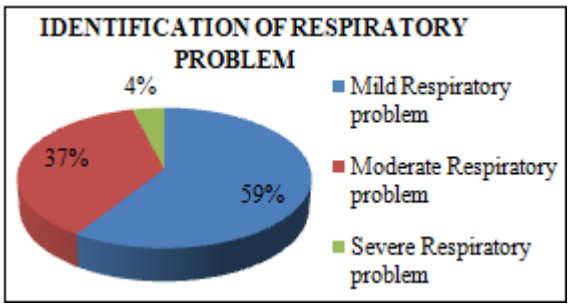

Figure 1

5. Discussion

The main purpose of study was to identify the respiratory problem any school age children at the iniate stage. Assessed by using peak respiratory flow rate (PEFR).The study sample consisted by 100 samples. Data was collected and analyzed and the study finding revealed the following.

A study was supported by **Mishra Shubhankar (2015)** PEFR is a lung function test which is easily measurable and reproducible but baseline value of PEFR has not been studied. The aim of this study is to establish normal values of PEFR in normal children of boys are more than girls, there was no significant difference in the same, when similar weight is taken into consideration. The PEFR value of children of was less than that of other parts. This indicates PEFR is variable according to geographical situation, environmental condition, life style of people etc. PEFR (l/min) predicted form height based regression equation was the most consistent finding in a good number of studies including present one. The clinical variables are peak expiratory rate values. Green (80-100%), yellow (50-79%), red (less than 50%) it is the mild, moderate, severe respiratory problem values in school age children

The study was supported by **Rinku Garg (2015)** Age, sex, weight, and height the main factors that affect peak expiratory flow rate (PEFR). Various authors have shown that geographical, climatic, anthropometric, nutritional, and socioeconomic conditions of India are associated with regional differences in lung function. To establish the normative data of PEFR among school children aged 10–14 years in Ghaziabad city, Uttar Pradesh, India. A cross-sectional study was done in 500 school children aged 10–14 years in Ghaziabad city. Result: Results showed that there was an increase in PEFR in boys and girls with an increase in age, height, and weight. Normative data of this study can be useful for the diagnosis, treatment, and follow-up of children with respiratory problems such as asthma of this region.

Lung function tests provide a better understanding of functional changes in the lungs and their significance from the view point of diagnosis. Peak expiratory flow rate (PEFR) recording is an essential measure in the management and evaluation of asthmatic children. The Peak Flow Meter is a useful instrument for monitoring PEFR in healthy children, asthmatic children, and adults. demographic variables age, gender, weight, respiratory rate, heart rate, systolic blood pressure, family history of asthma and allergic or chest injuries. Assessed the peak expiratory between the height, weight, flow rate (PEFR) used for the healthy school age children. This was supported by **Veera Mohan Rao, Rameswarudu M (2016).** There is a wide variation of asthma even in India, with prevalence ranging from 3.3% in Luck now to 11.6% in new Delhi. It has been seen that prevalence of 7.4% in school children aged between 8-12 years.

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