

## Child Nutrition 2019: Effectiveness of asthma educational intervention in improving asthma knowledge and attitudes of parents/ caregivers of asthmatic children- Chhaya Akshay Divecha- National University of Science and Technology

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### Abstract

Research shows the positive effects of asthma education in improving parental knowledge, self-management skills, and reduced health care costs. Such studies are lacking in developing countries. We studied the effectiveness of the educational intervention in improving the knowledge and attitudes of parents/caregivers of asthmatic children. The study was conducted in the Pediatric chest clinic of the tertiary hospital (India) over 21 months after ethics committee approval. Recruited parents were randomized into the interventional group (A) receiving education module and control standard group (B). Parents' asthma knowledge and attitudes were assessed at baseline and 5-months post-enrollment using a 25-item questionnaire. The clinical data and exacerbations through the study were noted, 75 parents fulfilling presence criteria were analyzed (cases/Group A:37 and controls/ Group B:38). 8.3% of parents/caregivers were illiterate. Around 36.9% had a family history of allergy/asthma. Mean scores at baseline and follow up were 8.37 and 11.06 respectively. Guardians did well on knowledge items associated with chronicity, family history, chronic cough, home administration of steroids in severe asthma, and maintaining records of clinical/medication for good control. The intervention group showed significant upgrading in most attitude-based questions post-intervention as compared to the non-intervention group (B), especially in improved quality of life after inhalation therapy and improved prognosis post-childhood. The World Health Organization Asthma Report 2014 estimates that 334 million people worldwide suffering from asthma. In the United States, asthma currently affects about 25 million people. Although asthma can occur at any age, it most often begins early in life and is the most common non-communicable disease among children. Approximately 14% of the world's children have asthma. 7.1 million children have asthma. Worldwide, the burden of asthma, measured by disability and premature death, is highest in children approaching adolescence ages 10-14. Asthma is also serious economic anxiety in primary health care worldwide. In the

United States, the total cost of asthma to society was US\$56 billion in 2007 or US\$3259 per person. 2008 asthma caused 10.5 million missed days from school and 14.2 missed days from for caregivers. The total cost of loss of productivity from workdays is US\$3.8 billion per year, and early death US\$2.1 billion per year. Worldwide, asthma ranks 14 in terms of disability-adjusted life years, which are the number of years lost to ill health, disability, or death attributed to asthma. According to a 2011 European study, the probable total cost of asthma was €19.3 billion among people aged 15 to 64 years. It contains respiratory infections, weather changes, stress, excitement, exercise and additional physical activities, allergic hypersensitivity reactions, food additives, animal dander, dust mites, cockroaches, outside and indoor pollutants, certain medications, and cigarette smoke. Asthma is considered by recurrent, episodic, reversible symptoms frequently referred to as asthma exacerbations, or asthma attacks. Asthma symptoms include coughing, shortness of breath, chest stiffness, and wheezing that most frequently occur at night or in the early morning. Asthma symptoms differ in severity and frequency in pretentious individuals and can occur several times a day or week. Asthma symptoms may be mild, moderate, and are classified giving to symptoms and quantitative measurements of lung function using a peak expiratory flow meter (PEF) of forced expiratory volume in one second (FEV1). Asthma symptoms can be so severe that, if left untreated, death can occur. Exacerbations of asthma signs often result in school and work absence, activity intolerance, and emergency hospital visits for asthma. Nocturnal asthma exacerbations frequently cause sleeplessness, which may result in daytime fatigue. Asthma symptoms can affect and disturb activities of daily life and can have an unfavorable effect on the quality of life for people with the disease, with children and their caregivers. For this evaluation, quality of life represents how well the asthmatic child is able to manage signs of the disease and lead a usual healthy life. The caregiver raises to the primary person who takes care of a child with asthma. Family refers to the

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caregiver and the child. According to the United States Centers for Disease Control and Prevention (CDC), epidemiologists and clinical researchers concur that the burden of asthma is higher among children compared to adults. Asthma prevalence in children varies within and across countries. Asthma also exists along with ethnic and racial outlines. The Global Study of Asthma and Allergies in Childhood (ISAAC) counted the prevalence of asthma symptoms of children from around the world. In the United States, non-Hispanic Black and Puerto Rican children have asthma prevalence associated with Caucasian children. Children from the Ivory Coast, Costa Rica, and Wales have higher asthma occurrences compared to children from Kenya, Brazil, and England. Indigenous Australians, Aboriginal and Torres Strait Islander Australian children have a higher prevalence of asthma compared to non-Indigenous Australian children. The international prevalence of asthma prompted governments and communities to create initiatives and strategies to address this public health issue. The universal burden of asthma led to the growth of the Global Initiative for Asthma (GINA). Formed in 1993, in association with the National Heart, Lung, and Blood Institute, National Institutes of Health, United States of America and the WHO, GINA's goals contain working with healthcare providers and public health officials worldwide to reduce asthma occurrence, morbidity, and mortality. In an effort to raise public awareness of the global burden of asthma, which is held annually on the first Tuesday in May. The problem of asthma in the United States nurtured the making of the National Asthma Education and Prevention Program (NAEPP). This program is designed to raise awareness about asthma and the major public health concern it poses to society. In addition to leading asthma prevention activities, NAEPP unites with other nominees to develop asthma educational programs for minority populations who are extremely affected by asthma. The control of asthma, over modern treatment, and educational programs, can be armor-plated by the growth of companies with caregivers, schools, and healthcare earners. The NAEPP Expert Panel Report 3, Guidelines for the Diagnosis and Management of Asthma (EPR-3), has a provision that specifies that asthma education programs for children should include their caregivers. Caregivers' involvement is crucial for achieving the goals of asthma management in children, which supports the interest of GINA and NAEPP to include caregivers in school-based asthma education programs for children. The strategies recommend education for asthma administration should occur at all points of care, including schools. There was no statistically significant difference in asthma severity and control between the two groups at follow-up.

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