

EPIDEMIOLOGICAL FEATURES AND QUALITY OF LIFE IN
SCHOOL AGE ASTHMATIC CHILDREN
IN CAIRO (COMMUNITY-BASED STUDY)

Thesis

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Pediatrics

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This work is dedicated to ...

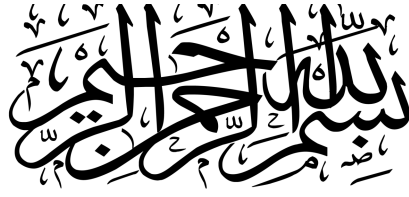
My beloved father, to whom I owe everything I ever did in my life and will achieve

My mother for always being there for me

My brother and my sisters for their support

Finally my husband and my lovely sons (**Ziad and Anas**) for being the light of my life





{ اقرأ باسم ربك الذي خلق (1) خلق الإنسان من
علق (2) اقرأ وربك الأكرم (3) الذي علم بالقلم (4)
علم الإنسان ما لم يعلم (5) {
صَدَقَ اللهُ الْعَظِيمُ

العلق

وفي صحيح مسلم من حديث أبي هريرة رضي الله عنه أن رسول
الله صلى الله عليه وسلم قال:

إذا مات ابن آدم انقطع عمله إلا من ثلاث؛ صدقة
جارية، أو علم ينتفع به أو ولد صالح يدعو له.

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LIST OF ABBREVIATIONS

| Abbrev. | Full term |
|------------|---|
| AAAAI | American academy of allergy and immunology |
| ACE | Angio-tensin-converting enzyme [ACE] inhibitors |
| ADAM33 | A disintegrin and metalloprotease |
| B2 | Beta adrenergic receptors |
| BA | Bronchial asthma |
| BHR | Bronchial hyper-responsiveness |
| BM | Basement membrane |
| BMI | Body mass index |
| CAPMAS | Central Agency for Public Mobilization and Statistics |
| CME | Continuous medical education |
| CT | Computed tomography |
| DNA | Deoxyribonucleic acid |
| DPI | Dry powder inhaler |
| EAACI | European academy of allergy and clinical immunology |
| ED | Emergency department |
| ETS | Environmental tobacco smoke |
| FeNO | Fraction of exhaled nitric oxide |
| FEV1 | Forced expiratory volume in 1 s |
| FVC | Forced vital capacity |
| GINA | Global Initiative for Asthma |
| HRQoL | Health-related quality of life |
| ICSI | Institute for clinical systems improvement |
| ICU | Intensive Care Unit |
| IgE | Immunoglobulin E |
| IL | Interleukin |
| IPCRG | International primary care respiratory group |
| ISAAC | International study of asthma and allergies in childhood |
| MDI | Metered dose inhaler |
| NAEPP | National Asthma Education and Prevention Program |
| NHANES III | National Health and Nutrition Examination Study III |
| NHLBI | National heart, lung and blood institute |
| NO | Nitric oxide |
| PACQLQ | Paediatric Asthma Caregiver's Quality of Life Questionnaire |
| PEF | Peak expiratory flow |
| PEFM | Peak expiratory flow-meter |
| PEFR | Peak expiratory flow rate |
| PFMs | Peak flow-meters |
| QOL | Quality of life |
| TH1 | T Helper cell1 |
| TH2 | T Helper cell 2 |
| TTT | Treatment |
| WHO | World Health Organization |

Abstract

The aims of work were to determine the prevalence of childhood asthma, associated risk factors, and to assess the quality of life of the children and caregivers.

The sample was randomly chosen from Nasr-City in Cairo governorate.

1461 families participated with 2394 school age children. 250 children were asthmatic with prevalence of 10.4%. Statistically significant relations were detected between the quality of life and each of maternal age, maternal education, maternal occupation, crowding index, house ventilation, Hospital admission for asthma, and Medical information by medical team about asthma.

Key words:

Epidemiology, Quality of life, School age, Asthma, Nasr-city Cairo, Community-based study.

INTRODUCTION

Allergic diseases are among the most common health disorders of childhood (*Lenney, 1997*). Twenty percent of the world population suffers from allergic diseases (*WHO, 2007*).

Asthma is an historic disease recorded clearly in ancient times by the Chinese and the Greeks (*Lenney, 2009*). Asthma is a chronic disease characterized by recurrent attacks of breathlessness and wheezing, which vary in severity and frequency from person to person. Symptoms may occur several times in a day or week in affected individuals, and for some people become worse during physical activity or at night. According to WHO estimates in 2007, 300 million people suffer from asthma and 255,000 people died of asthma in 2005 (*WHO, 2007*).

Asthma is the most common chronic disease among children. It is not just a public health problem for high income countries, it occurs in all countries regardless of level of development. Over 80% of asthma deaths occur in low and lower-middle income countries. Asthma is under-diagnosed and under-treated, creating a substantial burden to individuals and families and possibly restricting individuals' activities for a lifetime (*Fischer et al., 2005*).

There is increase in asthma symptoms prevalence in Africa (*Pearce et al., 2007*). In Cairo the overall prevalence of wheeze ever, wheeze during the last year and physician-diagnosed asthma were 26.5%, 14.7% and 9.4% respectively (*Georgy et al., 2006*). In Egypt up to one in four children with asthma is unable to attend school regularly because of poor asthma control (*Bassili et al., 2000*).

Children with asthma are at higher risk for psychological problems (*Calam et al., 2005*).

Researchers agree that healthcare must focus on quality of life (QOL). This is particularly important in patients with chronic conditions where the treatment is directed toward symptom control rather than cure, QOL instruments measure the impact of disease on a patient's daily activities and life (*Williams and Williams, 2003*).

AIM OF THE WORK

The Aim of this Work is to:

- Study the prevalence of bronchial asthma in school age children in Cairo, Egypt.
- Describe the socio-demographic features and associated risk factors of the asthmatic children.
- Assess quality of life of asthmatic children and their caregivers.