

Knowledge and Perception of Asthmatic Patients and their Family towards Asthma Disease and Management in King Saud Medical City, Riyadh, KSA

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Abstract

Background: Despite of the major effort to improve asthma management, there are still poor public knowledge and perception among patients with asthma and their family in the Kingdom of Saudi Arabia.

Methods: Across sectional descriptive study was conducted last May 20, 2015 during World Asthma Day at Medical Tower ground floor in King Saud Medical City in Riyadh, Kingdom Saudi Arabia with more than 100 participants in the said activity from different area of Riyadh. Questionnaires were distributed to the participants after given asthma awareness by healthcare providers.

Results: A total of 55 participants during Asthma day responded to the questionnaire, Majority are male (50.94%) and Saudi nationality (67.92%). After intervention and awareness given to the participants, most of them are aware that asthma is shortness of breath and coughing (87%) which considered being the major signs and symptoms of asthma. Furthermore they don't believe that abdominal pain causes asthma (25%). Participants are aware that most of the common risk factors of asthma is exposure to smoke (94%) followed by exposure to polluted air (91%). The knowledge and perception of the participants towards the medication needs to be used for asthma, most of them answered ventolin spray (77%) and followed by oxygen (72%).

Conclusions: Different model of educational activity for bronchial asthma helps in improving the knowledge and awareness of patients and family about asthma disease.

Keywords: Asthma awareness; Knowledge; Perception; Pediatrics; Healthcare

Introduction

Bronchial Asthma is well known disease all over the world and it is one of the most common chronic illnesses in Kingdom of Saudi Arabia (KSA). Local reports suggest that the prevalence of asthma is increasing [1]. Poor knowledge, fear use of new drugs and lack of awareness about the importance to control the disease are common among primary care physicians caring for asthma patients in the KSA [2].

Education awareness is considered to be effective problem-solving approach to the delivery of health care that standardized the management of patient's preferences and values in making the best clinical decisions about asthma [3]. Several asthma patients continue to be under diagnosed, under treated and at risk of acute exacerbations resulting in absent from work or school, increased use of expensive acute healthcare services and reduced quality of life [3].

Lack of awareness, poor compliance in attending educational session and not participating in asthma day activity are the most common factors that lead to increased uncontrolled asthma patients. A recent asthma control survey showed that only 5% were controlled, 31% were partially controlled and 64% were uncontrolled [4].

One study conducted last September 26, 2013 which is to know the knowledge, attitude and practices of patients of bronchial asthma

which has a total of 140 patients with confirmed diagnosis of asthma [5].

Both of the study concluded that patient education program should augment awareness, eliminate social stigma and misconcepts in the community regarding asthma. Knowledge about the prevailing perception in the community would be the first step in achieving this. Another descriptive cross-sectional study was conducted and 100 diagnosed asthmatic children and their caregivers were enrolled.

This study concluded that asthma awareness is inadequate, and asthmatic children are deprived of nutritious food considering them as triggering factors. Awareness raising strategies are needed in community [6]. A wide gap exists between recommended and actual practice, owing to educational barriers and a lack of adequate asthma-related knowledge [7].

World Asthma Day is one of the best methods in giving awareness to the public as in like May 5, 2015 with the theme "You Can Control Your Asthma" [8]. In KSA, this activity was celebrated in most of the healthcare organizations following the same theme; King Saud Medical City (KSMC) was among them. Activity was conducted on May 20, 2015 at Medical Tower of KSMC, Riyadh.

In line to this activity, the researchers took the opportunity to evaluate the knowledge and perception of the participants towards asthma disease and its management through questionnaires distributed to them right before they will leave the activity area.

Objectives

- To assess the knowledge of parents caring for asthmatic children about Asthma; its risk factors, treatment, and prevention.
- To identify the perception of parents caring for asthmatic children about Asthma disease in general.

Materials and Methods

A cross sectional descriptive study was conducted on May 20, 2015; whole day activity was carried out from 7:30 AM up to 6:00 PM entitled "World Asthma Day".

The activity was held in Medical Tower ground floor of KSMC in Riyadh, KSA organized by allergy and immunology physicians, epidemiologists, health educators, nurses and respiratory therapists and other allied healthcare providers.

Study population: All participants who have children or relative ages between 0-12 years old diagnosed with asthma or any history of asthma regardless of gender and nationality.

Sample size: 100 questionnaires were prepared, 80 were distributed to the attendees, 55 were received, 11 were not filled up completely and 14 were not given back.

Study materials: There were different activities during this event like putting stations along with stands (example: triggering factors, asthma medications, risk factors etc.), distribution of brochures, play area for the kids, showing educational movies and distribution of gifts.

Questionnaires were developed and prepared in bi-language (English and Arabic) reviewed by Epidemiologist and finalized by the Allergist and Immunologist consultants covering all the requirements in the questionnaire. Each questionnaire has four parts as follows:

Part 1: Demographic data (Age of the asthmatic child, gender, nationality, number of family members who have asthma, number of children with asthma).

Part 2: General questions (ideas about the information towards asthma and clinical symptoms).

Part 3: Risk factors and education (ideas of possible irritant factors such as cold weather, dust, pets; medication use, asthma management, protective steps & procedures to perform in case of asthma attack).

Part 4: Health education received by the participants (type of health education, information received and who provided the health education).

Ethical considerations: The study objectives were explained clearly to the participants and verbal consent were obtained from all of them. Their rights to refuse in participation and the confidentiality were stated. Ethical approval was obtained from IRB committee in KSMC.

Data collection and analysis: Data was collected through questionnaires and analyzed through SPSS windows software, Version 20.0. The level of significance tested by chi square and P value <0.05.

Results

A total of 55 participants during Asthma day responded to the questionnaire with mean age of their children with bronchial asthma represented 4.65; maximum age is 12 and minimum is 1 year old (Table 1).

Sample Size	N=55
Age	
Mean (SD)	4.65 (3.34)
Median	4
Minimum	1
Maximum	12

Table 1: Mean, median, minimum and maximum of age of asthmatic children.

About 69% of the participants were of Saudi nationality; 49% were females and 51% males (Figure 1).

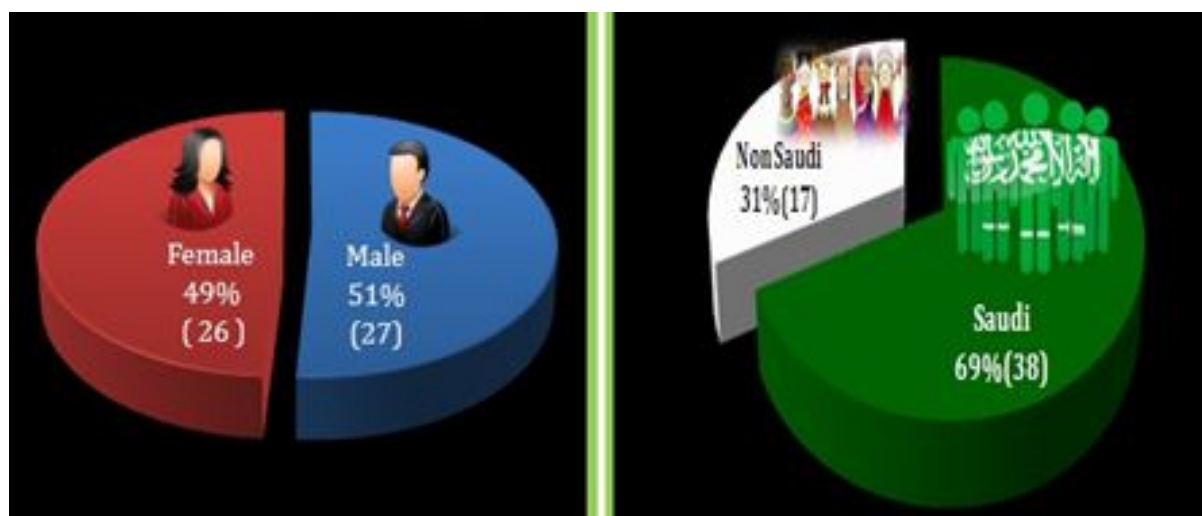


Figure 1: Gender of participants and nationality.

After intervention and awareness given to the participant most of them were aware that asthma is shortness of breath and coughing (87%) which considered being the major signs and symptoms of

asthma. Furthermore they didn't believe that abdominal pain causes asthma (25%) (Figure 2).

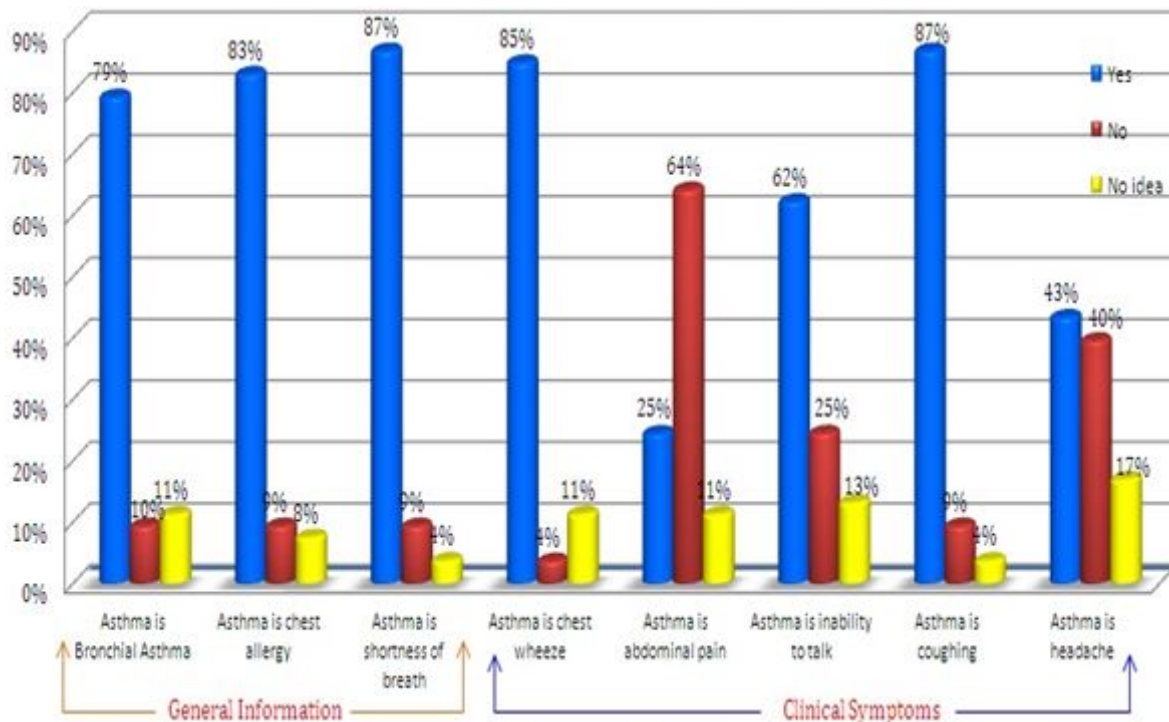


Figure 2: Knowledge and perception about asthma.

Participants were aware that most of the common risk factors of asthma is exposure to smoke (94%) followed by exposure to polluted air (91%) (Figure 3).

The knowledge and perception of the participants towards the medication needs to be used for asthma, most of them answered ventolin spray (77%) and followed by oxygen (72%) (Figure 4).

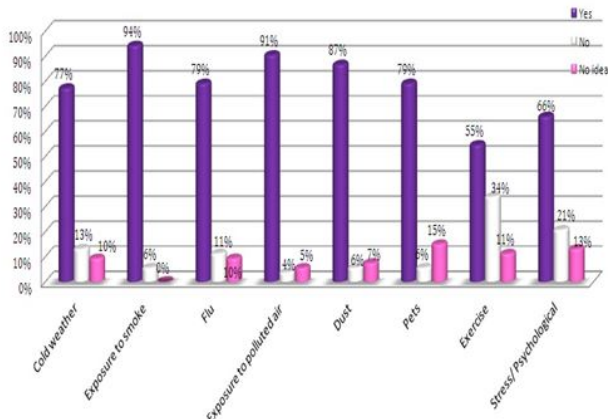


Figure 3: Knowledge and perception about asthma risk factors.

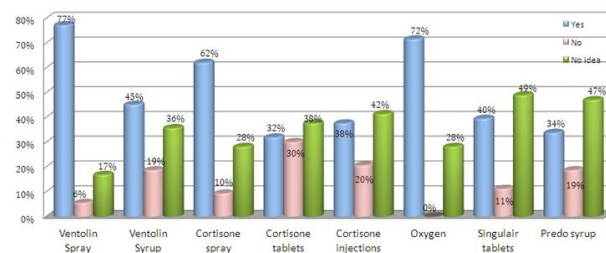
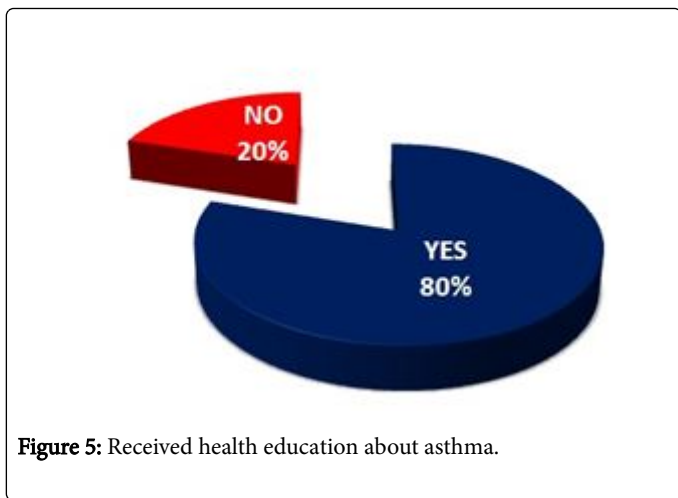


Figure 4: Knowledge and perception about asthma medications.

There were 80% of participants who said YES; they received health education and 20% of them didn't (Figure 5).



The Statistical Relationship between Parents Ideas and Beliefs towards Asthma and Received Health Education about Asthma showed that there is statistically significance relationship ($P=0.009$, chi-square=9.35) between the parents Received health education about asthma and their beliefs and ideas about “Asthma can be recovered under good control”(Table 2).

Furthermore, there is no relationship between the parent’s ideas and beliefs about asthma with the content of health education received such as improving and increasing the information about asthma changing some behaviors and beliefs about asthma and developing the skills of curing with P value>0.05 and $df=8$. The study showed that there is statistically significance relationship between the parent’s beliefs and ideas about asthma can be cured (P value=0.02); asthma is a genetic disease (P value=0.04); asthma is psychological disease (P value=0.01) and using ventolin leads to addiction (P value=0.05) with the Kind of health education provided (Table 3).

Parents ideas and beliefs	N	Received health education about asthma		df	Chi-square	P-Value
		Yes	No			
Asthma can be recovered under good control						
YES=58.2% (32)	55	80% (44)	20% (11)	2	9.35	0.009
NO=10.9% (6)						
NO IDEA=30.9% (17)						

Table 2: Relationship between parent’s ideas and beliefs towards asthma with received health education about asthma.

Parents ideas and beliefs	Kind of health education provided					df	Chi-square	P-value
	Lectures	Booklets/ brochures	Personal advice	Attending previous asthma day	Others			
Asthma can be cured YES=40% (22) NO=21.8% (12) NO IDEA=38.2% (21)	25.5% (14)	18.2% (10)	5.5% (3)	10.9% (6)	40% (22)	10	17.93	0.02
Asthma is a genetic disease YES=32.7% (18) NO=27.3% (15) NO IDEA=40% (22)						10	15.03	0.04
Asthma is a psychological disease YES=32.7% (18) NO=32.7% (18) NO IDEA=34.5% (19)						10	16.85	0.01
Using Ventolin leads to addiction YES=34.5% (19) NO=27.3% (15) NO IDEA=38.2% (21)						10	14.53	0.05

Table 3: Parents ideas and beliefs towards asthma with the kind of Health Education Provided (N=55).

The statistical significance relationship between parent’s ideas and beliefs towards asthma with the attendance of previous asthma day showed that there is statistically significance relationship between the parents beliefs and ideas about asthma and can be recovered under

good control ($P=0.01$); asthma is genetic disease ($P=0.04$) and ventolin increase heartbeats ($P=0.03$) with the attendance of previous asthma day (Table 4).

Parents ideas and beliefs	Attendance of previous asthma day activity		df	Chi square	P-value
	YES	NO			
Asthma can be recovered under good control YES=58.2% (32) NO=10.9% (6) NO IDEA=30.9% (17)			4	9.43	0.01
Asthma is a genetic disease YES=32.7% (18) NO=27.3% (15) NO IDEA=40% (22)	30.90% (44)	69.1% (38)	4	8.49	0.04
Ventolin increase heartbeat YES=43.6% (24) NO=10.9% (6) NO IDEA=45.5% (25)			4	7.28	0.03

Table 4: Parents ideas and beliefs towards asthma with the attendance of previous Asthma Day (N=55).

Discussion

Optimal asthma education is an integral part of asthma management which decreases asthma related morbidity improves inhalation technique and asthma knowledge [9]. The study showed that there was statistically significant between parent's belief and ideas towards asthma with the attendance of asthma activity. Health education and awareness activity showed great impact on parent's knowledge and perception because some of the parents have accurate beliefs and other inaccurate based on clinical perception.

Aiming for the public in giving awareness session about asthma and involving children in this research brought multipart challenges to the study. The researchers mentioned some of the limitations during the collection of data which include space during the activity it was conducted in the hospital and it's hard to catch most of the public not like in malls or park [1,2].

Less number of health educators during the activity; it takes time to educate and cover all the participants. Considering a participatory approach and following interactive learning methods were very resource intensive both financially but also in terms of staff time and staff engagement.

Acknowledgement

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