

## Asthma knowledge in a sample of students at college of Health and Medical Technologies in Baghdad

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### Abstract :

**Background:** Bronchial Asthma (BA) is a chronic inflammatory disease of the airway characterized by therecurrent attacks of the shortness of breath that associated with wheezing, recurrent cough as well as chest tightness may be get worse during exposure to smoke, dust, change in weather. The prevalence of a sthmawas increasing globally, so the natural history of asthma is still not well defined it thought to be of genetic and environmental factors represented by exposure to allergens.

**Aim:** To determine the level of knowledge about asthma among students in College of health and medical technologies.

**Methodology:** one hundred forty college students were selected using a designed questionnaire for collect information of students about the epidemiology of asthma, symptoms, trigger factors and source of their information. The knowledge score was estimated the measure level of the students' knowledge.

**Results :** More than half of the sample had moderate knowledge level.

**Keywords:** asthma, prevalence , knowledge, allergens.

### Introduction:

Asthma is the chronic inflammatory disorder of airways, that resulting in avariable airflow bronchial obstruction that's potentially reversible spontaneously or with appropriate therapy, as well as its characterized by the episodic attacks of breathlessness ; cough; and wheezing "asthma triad" (1) , so the episodes may be occur few times a day or few times per week also ,it may be become worse with exercise or at night (2)risk factors of bronchial asthma are combinations of host ; environmental and genetic factors whilst family history was neither sufficient nor necessary for development of asthma (3) .

Asthma is a syndrome of reversible bronchial obstruction in hyper responsive airways; mediated by allergic reaction or irritation of the airway by allergens (2). Common allergens include dust mites pollen, molds, animal dander (4). Airborne irritants and pollutants, Cigarette smoke, perfumes, and cleaning solutions as well as strong odors from gasoline fumes or fresh paint may irritate sensitive tissues in bronchial tubes and aggravate the symptoms of asthma in many people's (4)(5). Similarity; exercise, physical activity, cold air, sever emotional arousal such as anger, stress or fear,further more medications as non-steroid anti-inflammatory drugs; beta-blockers also aspirin can provoke asthma.(2)

At 2011; approximately 235 to 330 million people worldwide are affected by the asthma (2) (6) (7) and 250,000 to 345,000 people die in year (6) (8), but the rates of bronchial asthma was vary between the countries with prevalence between 1 and 18% being more in developed than the developing countries (6).

The asthma was twice as common in boy as girl, whilst men have a lower percentage of asthma than adult women (6) with more preference in young than the old (9); it is reported as the most common reason for children admission to emergency department in US hospital in 2011 (10).

In 2015, globally; 358 million people had asthma and about 397,100 deaths were due to asthmatic attacks or complications (11).

In Iraq, the prevalence of asthma is 8.3 per 1000 persons, with males to females' rates 8.8 and 7.7 per 1000 respectively, prevalence increases steadily with age (12).

Best strategy for asthma management is early treatment of its exacerbation furthermore, special attention for high risk of asthma related was death patients through intensive education; monitoring and the care by physicians and their families (13).

**Aim of the study:** To determine the level of knowledge about asthma among a sample of students in College of Health and Medical Technologies.

**Methodology :** A cross sectional study was carried out during a period from 1<sup>st</sup> October to the end of November, 2017. A sample of 140 college students having no asthma was recruited in the study to determine their knowledge on asthma, a questionnaire was designed to meeting the objectives of study. Including the demographic information, knowledge about symptoms; epidemiology and risk factors of bronchial asthma, in addition to information's about the source of their knowledge.

Total number of the questions that can be used to measure the asthma knowledge of the students were 18 questions with one degree for each the right answers making the total score of 18 degrees. Total score was divided into 3 grades: high grade of knowledge: 13-18 degrees, intermediate grade of knowledge: from 7-12 degrees and Low grade of knowledge: from 1-6 degrees.

So the statistical program (SPSS) were using for the analysis data and all the results were represented in form of graphs and tables.

### Results and discussion:

Asthma is one of the most common chronic disease globally that affects approximately 300 million people worldwide (14). Report of the Global Initiative for Asthma (GINA) suggests that; by the 2025, an additional one hundred million people will suffer from asthma due to pollution and growing urbanization (15).

Results reveals that the numbers of male students enrolled in this study were 74 (52.9%) compared to 66 (47.1 %) female.

**Table (1) : Knowledge of studied samples about the symptoms and epidemiology of bronchial asthma.**

Knowledge of the bronchial asthma	Yes	No	Do not know	Total
Asthma is an infectious disease	5 (3.6%)	129 (92.1%)	6 (4.3%)	140 (100%)
Asthma is hereditary disease	92(65.7%)	40 (28.6%)	8 (5.7%)	140 (100%)
Symptoms of asthma were difficulty in cough ; breathing and chest tightness	112 (80.0%)	5 (3.6%)	23 (16.4%)	140 (100%)
Asthma, is a chronic disease that needed treatment for long time ?	80 (57.1%)	40 (28.6%)	20 (14.3%)	140 (100%)
Asthma, Affect children and adults	95 (67.9%)	37 (26.4%)	8 (5.7%)	140 (100%)
Asthma, controlled by using medication regularly for longer period of time.	74 (52.9%)	35 (25%)	31(22.1%)	140 (100%)
Asthma Cause sever complication	34(24.3%)	52 (37.1%)	54 (38.6%)	140 (100%)
Inhalers are used to treat asthmatic attack?	83 (59.3%)	21 (15%)	36 (25.7%)	140 (100%)

Table1 demonstrates the students' knowledge about the asthma. majority of samples (92.1 %) state the "asthma is not an infectious disease" so (65.7%) mentioned that it is hereditary, most of students (80%) know the symptoms. 67.9% reported that it affects both adults and children with more than half (52.9%) of the sample recorded that it can be controlled by medication. Nearly quarter of the sample 24.3% believe that it can cause severe complications. More than the half (59.3%) stated that inhalers can be used to treat the attack.

**Table (2) : the knowledge of the studied sample about aggravating factors of bronchial asthma.**

The aggravating factors	Yes	No	Do not know	Total
Fumes	42 (30%)	30 (21.4%)	68 (48.6%)	140 (100%)
Smoke	125 (89.3%)	2 (1.4%)	13 (9.3%)	140 (100%)
Dust	113 (80.7%)	-	27 (19.3%)	140 (100%)
Sport & exercise	55 (39.3%)	31(22.1%)	54 (38.6%)	140 (100%)
Tension	33 (23.6%)	47 (33.6%)	60 (42.8%)	140 (100%)
Change in weather	90 (64.3%)	12 (8.6%)	38 (27.1%)	140 (100%)
Aspirin	4 (2.9%)	57 (40.7%)	79 (56.4%)	140 (100%)
Certain foods	25 (17.9%)	56 (40%)	59 (42.1%)	140 (100%)
Common cold and rhinitis	44 (31.4%)	29 (20.7%)	67 (47.9%)	140 (100%)
Perfumes	20 (14.3%)	33(23.6%)	87(62.1%)	140 (100%)

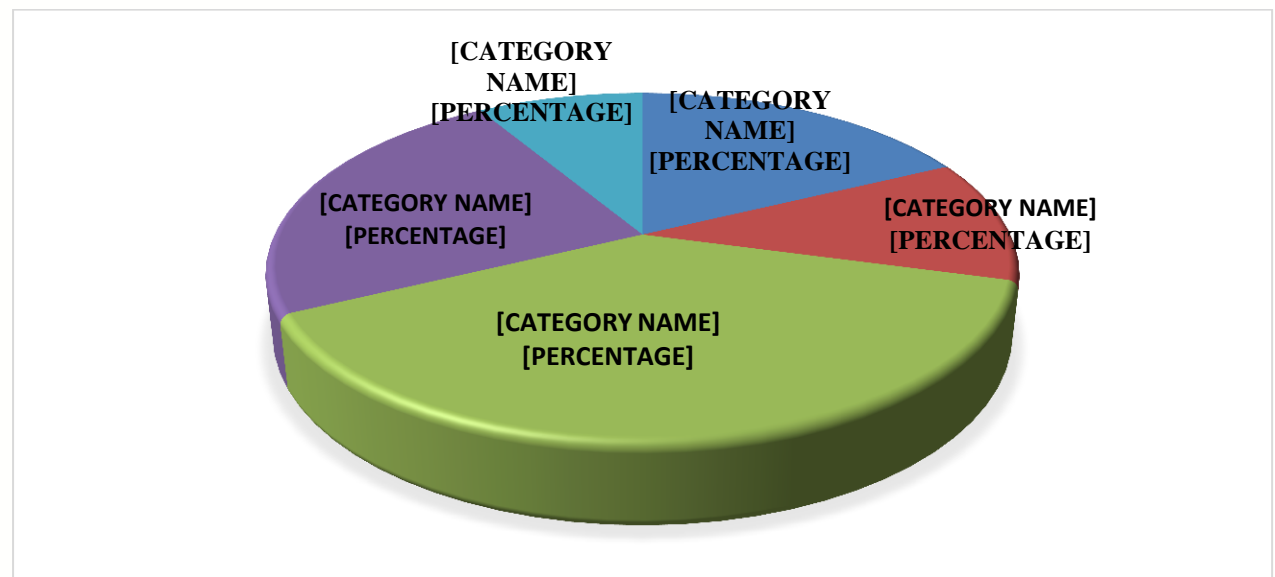
Student's knowledge about the aggravating factors of the bronchial asthma were illustrate in table(2), Dust and smokes and were recorded as mainly aggravating factors by the participants (89.3 and 80.3 ) % respectively, followed by weather changes (64.3%). Sport & exercise, common cold and rhinitis, fumes, tension, intake of some types, aspirin and perfumes were reported in lower percentages.

**Table (3) represent the knowledge score of the students about the bronchial asthma**

Gender	Low	Moderate	High	
Male	3 (2.1%)	42(30.1 %)	29 (20.7%)	74(52.9%)
Female	5 (3.6%)	33(23.5%)	28 (20%)	66 (47.1%)
Total	8 (5.7)	75 (53.6%)	57 (40.7%)	140 (100%)

More than half of the sample (53.6%) had moderate knowledge with male showed to have more knowledge (52.9%) than female students. A study done on nursing students in Bengaluru(16) revealed that their Knowledge about the bronchial asthma was at 63% whilst that done among asthmatic student at ages ranged from 13-18 years in Oman reported that intermediate and high knowledge score nearly the same (49.6 and 48.1 respectively) for most of the students with more knowledge among boys (17).

Another study done in Pakistan among school teacher shows that 57% of them were had knowledge about asthma and Knowledge of female teachers were better than male teachers (18).



**Figure (1): source of knowledge among the sample**

The students mentioned that the source of these knowledge about the bronchial asthma was from friends and family in (39%) , 23% received their knowledge from medical and paramedical staff, Tv and radio recorded as the source of information in 18% followed by newspaper and magazine(11%) . Only 9% stated that seminar was their source of their knowledge.

#### **Conclusion & Recommendations:**

Majority of the sample of the student at the college of Health & Medical Technologies had moderate level of knowledge, it recommended that health education



about some chronic diseases should be implemented through seminars to improve their future knowledge.

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