



Libyan International Medical University
Faculty of pharmacy
Literature Evaluating



**THE DIFFERENCE BETWEEN THE REPORTS
FROM ASTHMATIC CHILDREN AND THEIR
PARENTS ABOUT THE EFFECT OF ASTHMA
ON THEIR QUALITY OF LIFE IN PEDIATRIC
HOSPITAL-BENGAZI-LIBYA**

Presented by 2nd year students:

Mais Elsoussi 3677

Awad Alhadad 3649

Nada Alzwai 3439

Rana Mohammed 3361

Omran Albarcha 3476

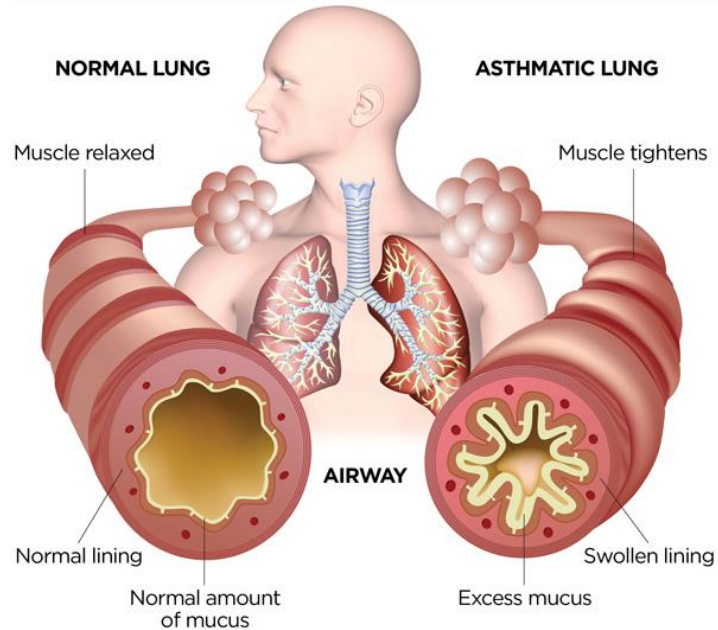
Mawada Elshelmany 2524

Islam Mohamed 3268



Introduction

Asthma is defined as a chronic inflammatory disease of the airways



Introduction

- ❖ Asthma is the most common chronic health condition in childhood, with an estimated worldwide prevalence of **11.6%** in 6- to 7-year-old children and **13.7%** in 13- to 14-year-old adolescents.
- ❖ It is characterized by shortness of breath, coughing, wheezing, and chest tightness, which may be life threatening and are a major cause of hospitalizations among pediatric patients.
- ❖ It might have physical, emotional and psychosocial impact on children's lives and also affects on the quality of life (**QoL**).
- ❖ Dependence on medication, sleep disturbances, daytime fatigue, and school/work absenteeism and underachievement, all these **impair** the quality of life (QoL) of children and adolescents and their families.



Introduction

- ❖ Childhood asthma is common in Libya and associated with repeated school absenteeism and hospital admission.
- ❖ Quality of life “**QOL**” is defined by World Health Organization Quality of Life (**WHOQOL**) as “a person’s perception of his/her position in life within the context of the culture and value systems in which he/she lives and in relation to his/her goals, expectations, standards, and concerns”.
- ❖ The ultimate goal of asthma treatment is to achieve and maintain clinical control and reduce future risks to the patient, to reach this goal in children with asthma, ongoing monitoring is essential.



Methodology

- ❖ A **cross-sectional, descriptive, quantitative** study was carried out to evaluate the effects of asthma on physical health, activities, and emotional health of asthmatic children and their parents.
- ❖ **Sixty-four participants** of male and female asthmatic children with their parents that were attached at pediatric hospital in Benghazi have been recruited and asked to complete CHSA instruments.
- ❖ This study **excluded** children less than 6 years old, and asthmatic children who were hospitalized i.e only those on routine appointment from out-patient pool.
- ❖ Data collection for the study were conducted from **January to October 2020**.

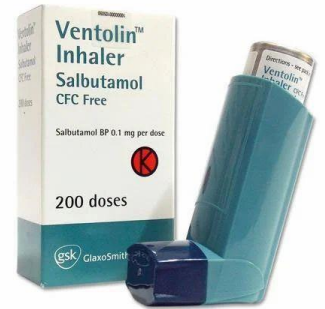
Methodology

- ❖ CHSA instruments are an asthma-specific instruments that has items computed in 3 domains including child's physical health, child's activities, and child's emotional health, it was developed by American Academy of Pediatrics (AAP) Department of Research.
- ❖ CHSA instrument has two versions for **parents** (CHSA) and for asthmatic **children** (CHSA-C).
- ❖ Computed scale scores were transformed as the following equation:
$$[\text{scale} = ((\text{mean of all items } 1)/4)*100]$$
- ❖ The demographic profile of all participants and medical data of asthmatic children were described using percentages and frequencies for the categorical variables, while means and median for the continuous variables.

Results

Demographic data for asthmatic children n=64

- ❖ The mean of the children's age was 11, and the gender was 50% girl and 50% boy.
- ❖ All the children do not smoke.
- ❖ About 51% of them said that they have a smoker in their house.
- ❖ 31% of them do not have pets.
- ❖ About 82% of them have diagnosed by asthma during the last five year.
- ❖ About 71% of them don not hospitalize due to asthma.
- ❖ About 93% of the children do not have other disease.
- ❖ 95% of them use salbutamol inhaler as a management disease.
- ❖ 49% of them have moderate asthma according to the physician that routinely follow.
- ❖ The mean of the parent's age which was 41 (54% of the parent were mothers).



Results

Child's activity

❖ Children report about their activity:

- The results which computed in 6 items showed that asthma relatively affects children's activities, where the children's were asked about **How much did asthma keep you from doing these things** like school gym classes, sports or running outside and playing at friends' houses or things that use a lot of energy.
- The report shows that about 29.6% of the children did not participate in school gym classes, 64.2% did not play at friends' house, and the did not do things that need little energy.

Table 3:- Children Report About Their Activity.

How much did asthma keep you from doing these things?	Not at all (5)	A little bit (4)	Some (3)	A lot (2)	Totally (1)	Mean
	n (%)	n (%)	n (%)	n (%)	n (%)	
a. School gym classes	4 (6.2)	14 (21.8)	12 (18.8)	15 (23.4)	19 (29.6)	2.51
b. Sports or running outside	8 (12.5)	14 (21.8)	15 (23.4)	15 (23.4)	12 (18.8)	2.85
c. Playing at friends' houses	5 (7.8)	3 (4.6)	10 (15.6)	5 (7.8)	41 (64.2)	1.84
a. Things that use a lot of energy	7 (10.9)	8 (12.5)	23 (35.9)	16 (25)	10 (15.6)	2.78
b. Things that use some energy	8 (12.5)	7 (10.9)	14 (21.8)	20 (31.3)	15 (23.4)	2.57
c. Things that use a little energy	12 (18.8)	1 (1.6)	2 (3.1)	8 (12.5)	41 (64.2)	1.98

Results

Child's activity

❖ Parent report about child's activity:

- Parent report about child's activities which computed in 5 items , when they were asked the parents about **How much was your child limited from participating in the following activities because of asthma**, like school gym classes, sports or running outside , or mild activities (such as walking).
- The report shows that only 1.5% of the children did not participate in school gym classes or do mild activities (such as walking) , and 6.2% of the children do not do sports or running outside.

Table 7:- Parent Report About Child's Activity.

How much was your child limited from participating in the following activities because of asthma?	Not limited (5)	Limited a little (4)	Limited some (3)	Very limited (2)	Totally limited (1)	Mean
	n (%)	n (%)	n (%)	n (%)	n (%)	
a. School gym classes	25 (39.1)	14 (21.9)	13 (20.3)	11 (17.1)	1 (1.5)	3.77
b. Sports or running outside	21 (32.8)	18 ((28.1)	7 (10.9)	14 (21.9)	4 (6.2)	3.59
a. Very "strenuous" activities	12 (18.7)	15 (23.4)	20 (31.2)	9 (14.1)	8 (12.5)	3.18
b. Moderate activities	14 (21.9)	30 (46.8)	14 (21.9)	2 (3.2)	4 (6.2)	3.72
c. Mild activities (such as walking)	50 (78.1)	9 (14.1)	4 (6.2)	0 (0)	1 (1.5)	4.62

Results

Physical health

❖ Children report about their physical health:

- The physical health scale of children report were consisting from 7 items the children were asked questions like **if they had shortness of breath or if they had cold or having problems with sleeping.**
- The report has shown that about of 28.1% of the children had shortness of breath, 32.8% had wheezing and cold, and about 35.9 % of them had difficulty in sleeping.

Table 2:- Children Report About Their Physical Health.

How much of the time have you had any of these things because of your asthma?	None of the time (5)	Little of the time (4)	Some of the time (3)	Most of the time (2)	All of the time (1)	Mean
	n (%)	n (%)	n (%)	n (%)	n (%)	
a- Shortness of breath	8 (12.5)	16 (25)	14	8 (12.6)	18	2.81
b- Tightness in the chest	12 (18.8)	16 (25)	14 (21.8)	2 (3.1)	(28.1)	2.96
c- Wheezing without a cold	9 (14.1)	11 (17.2)	14 (21.8)	6 (9.4)	20 (31.3)	3.03
d- Cough	9 (14.1)	11 (17.2)	14 (21.8)	15 (23.4)	13	2.85
e- A cold that won't go away	7 (10.9)	11 (17.2)	18 (28.1)	4 (6.2)	20 (31.2)	2.91
f- Wheezing with a cold	10 (15.6)	20 (31.2)	22 (34.4)	8 (12.6)	9 (14.1)	2.75
g- Difficulty sleeping	11 (17.2)	16 (25)	9 (14.1)	6 (9.4)	21 (32.8)	
					23 (35.9)	

Results

Physical health

❖ Parent report about child's physical health:

- Where the parents report was computed in 15 items, the percentage result when they were asked the same questions, has significant difference from children's report.
- For example when they asked about if their children having shortness of breath the percent was 37.2 and when they asked about wheezing and cold the percent was 35.1 and for sleeping problem it was 33.1.

Table 5:- Parent Report About Child's Physical Health.

How much of the time has your child had any of the following due to asthma?	None of the time (5)	Little of the time (4)	Some of the time (3)	Most of the time (2)	All of the time (1)	Mean
	n (%)	n (%)	n (%)	n (%)	n (%)	
a.Shortness of breath	16 (25)	24 (37.5)	19 (29.6)	3 (4.7)	2 (3.1)	3.72
b- Tightness in the chest	18 (28.1)	25 (39.1)	15 (23.4)	4 (6.2)	2 (3.1)	3.78
c- Wheezing without a cold	14 (21.9)	24 (37.5)	22 (34.3)	1 (1.5)	3 (4.6)	3.71
d- Cough	12 (18.7)	21 (32.8)	16 (25)	13 (20.3)	2 (3.1)	3.37
e- A cold that won't go away	6 (9.4)	24 (37.5)	19 (29.6)	13 (20.3)	2 (3.1)	3.30
f- Wheezing with a cold	12 (18.7)	37 (57.8)	1 (1.5)	2 (3.1)	12 (18.7)	3.51
g- Difficulty sleeping	13 (20.3)	26 (40.6)	7 (10.9)	8 (12.5)	10 (15.6)	3.31
During the past 2 weeks, how often did your child have each of the following that may have been due to asthma medicines?	None of the time (5)	Little of the time (4)	Some of the time (3)	Most of the time (2)	All of the time (1)	Mean
	n (%)	n (%)	n (%)	n (%)	n (%)	
a. Rapid heart rate	24 (37.5)	19 (29.6)	16 (25)	5 (7.8)	0 (0)	3.92
b. Headache	30 (46.8)	27 (42.1)	3 (4.6)	2 (3.1)	2 (3.2)	4.21
c. Upset stomach	36 (56.2)	24 (37.5)	3 (4.6)	1 (1.5)	0 (0)	4.42
d. Tightness in the chest	22 (34.3)	22 (34.3)	17 (26.5)	2 (3.1)	1 (1.5)	3.92
e. Irritable or fussy	26 (40.6)	27 (42.1)	4 (6.2)	2 (3.1)	5 (7.8)	4
f. Fatigue	13 (20.3)	24 (37.5)	25 (39.1)	0 (0)	2 (3.2)	3.68
g. Difficulty paying attention	18 (28.1)	35 (54.6)	8 (12.5)	0 (0)	3 (4.6)	3.98
h. Difficulty sleeping at night	17 (26.5)	25 (39.1)	20 (31.2)	0 (0)	2 (3.2)	3.80

Results

Emotional health

❖ Children report about their emotional health:

- The results which consist of 12 items showed different answers when the children were asked some questions as **How much of the time did some these things** (as upsetting due to asthma or due to using the treatment) **describe you because of asthma.**
- The report shows that about 31.3% of the children feel frustrated about having asthma, 34.3% of them feel frustrated that they can not do some things because asthma, 43.7% of them upset about having asthma and 35.9 % of them upset by having to use asthma treatment.

Table 4:- Children Report About Their Emotional Health.

How much of the time did these things describe you because of your asthma?	None of the time (5)	Little of the time (4)	Some of the time (3)	Most of the time (2)	All of the time (1)	Mean
	n (%)	n (%)	n (%)	n (%)	n (%)	
a. I am frustrated about having asthma.	4 (6.2)	5 (7.8)	11(17.2)	24 (37.5)	20 (31.3)	2.20
b. I feel left out by other people.	35 (54.6)	5 (7.8)	8 (12.5)	6 (9.4)	10 (15.6)	3.76
c. I am sad.	26 (40.6)	7 (10.9)	5 (7.8)	13 (20.3)	13 (20.3)	3.31
d. I am embarrassed about having to use an inhaler in school.	25 (39.1)	11 (17.2)	6 (9.4)	6 (9.4)	16 (25)	3.35
e. I am frustrated about having to use asthma treatments.	8 (12.5)	10 (15.6)	15 (23.4)	14 (21.9)	17 (26.5)	2.65
f. I am frustrated that I can't do some things because of asthma.	7 (10.9)	8 (12.5)	10 (15.6)	21 (32.8)	22 (34.3)	2.32
g. I am upset about having asthma.	3 (4.7)	11 (17.2)	17 (26.5)	23 (35.9)	28 (43.7)	2.12
h. I am upset by having to use asthma treatments.	4 (6.2)	4 (6.2)	23 (35.9)	23 (35.9)	23 (35.9)	2.11
How much do you agree or disagree with these things about asthma?	Strongly disagree (5)	Dis-agree (4)	Not sure (3)	Agree (2)	Strongly agree (1)	Mean
	n (%)	n (%)	n (%)	n (%)	n (%)	
a. My asthma causes stress in my family.	5 (7.8)	23 (35.9)	6 (9.4)	10 (15.6)	20 (31.3)	2.73
b. I am frustrated that other people don't understand what it is like to have asthma.	11 (17.2)	22 (34.3)	8 (12.5)	18 (28.1)	5 (7.8)	3.25
c. Sometimes I get angry and ask "why is this happening to me?"	11 (17.2)	15 (23.4)	20 (31.3)	17 (26.5)	13 (20.3)	2.91
d. I know which medicines to take for my asthma.	5 (7.8)	28 (43.7)	2 (3.1)	9 (14.1)		3.28

Results

Emotional health

❖ Parent report about child's emotional health:

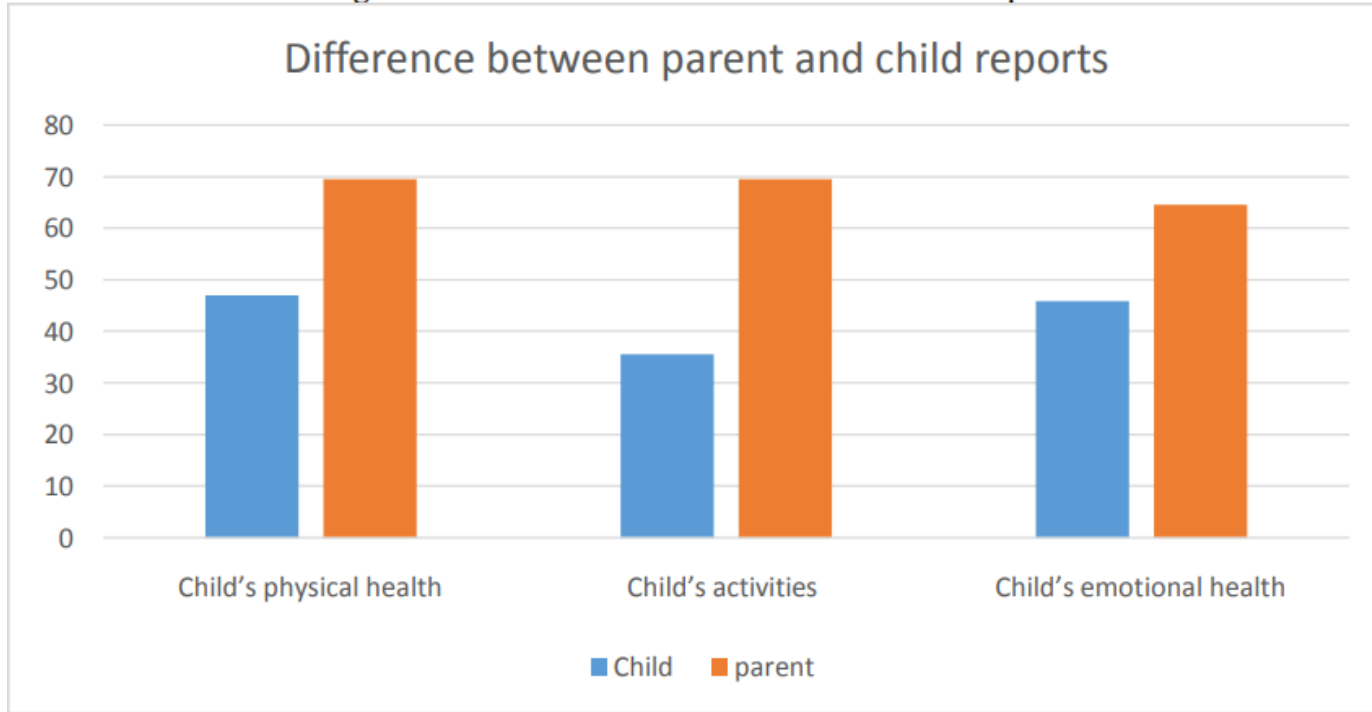
- In the other hand, where the parents report was consisting of 5 items, the result when they were asked the same question as their children, where different from children's report.
- The report shows that about 10.9% of the children feel frustrated about having asthma, 10.9% of them feel frustrated by having limit activities because of asthma, 0% are upset about having asthma, also 0% upset by having to use asthma treatment.

Table 6:- Parent Report About Child's Emotional Health.

How much of the time did each of the following statements describe your child due to asthma?	None of the time	Little of the time	Some of the time	Most of the time	All of the time	Mean
	n (%)	n (%)	n (%)	n (%)	n (%)	
a. Is frustrated about having asthma	25 (39.1)	16 (25)	10 (15.6)	6 (9.4)	7 (10.9)	3.68
b. Is frustrated having to rely on asthma treatments	23 (35.9)	17 (26.5)	11 (17.2)	9 (14.1)	4 (6.2)	3.68
c. Is frustrated by having to limit activities because of asthma	27 (42.1)	21 (32.8)	0 (0)	8 (12.5)	7 (10.9)	2.50
d. Is upset about having asthma					0 (0)	3.96
e. Is upset by having to take asthma treatments		19 (29.6)	0 (0)	16 (25)	0 (0)	4.09
	29 (45.3)	22 (34.3)	12 (18.7)	3 (4.6)		
	27 (42.1)					

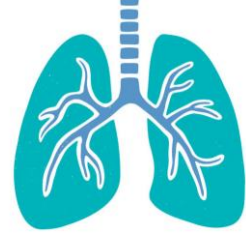
Difference between parent and child report

Figure 1:- Difference Between Parent and Child Report.



Parents reported that their asthmatic children had better physical health, activity, and emotional health than children themselves.

Discussion



- ❖ Asthma is the most common chronic disease in children, causing burden on health system.
- ❖ In recent years, prevalence of asthma symptoms became globally increased in children and adolescents, particularly in Low-Middle Income Countries.
- ❖ Asthma in children related to low quality of life especially in limitation of physical activities and study performance.
- ❖ Previous study used English versions of CHSA and found that child's and parent's reports regarding child's physical health, activity and emotional health differs in key areas.

Discussion

- ❖ In the present study, the findings showed a significant difference between children's and parents' reports in the children's activities, emotional and physical health domains.
- ❖ Also, another study which supported the results of the present study showed that children with cancer feel that they have greater control over their treatment compared to their parents' perception and the parents have more pessimistic views of the illness than their children.



Conclusion

- ❖ Asthma is a chronic respiratory disease that adversely affects different aspects of quality of life, and childhood asthma is common in Libya.
- ❖ This study highlights on the effect of asthma on their quality of life and also to assess the differences between child's and parents' report about the effect of the asthma on the child's physical health, child's emotional health and child's activity.

Recommendation

- ❖ It is recommended that the quality of children should be assessed and observed during clinic visits for a better holistic approach and effective improvement of outcome.
- ❖ Further researches are needed to study the risk factors leading to poor asthma control.

Acknowledgment

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References

- ❖ Amraja, E. *et al.* (2021) ‘the Difference Between the Reports From Asthmatic Children and Their Parents About the Effect of Asthma on Their Quality of Life in Pediatric Hospital-Benghazi-Libya’, *Int. J. Adv. Res.*, 9(06), pp. 01–08. Available at: <https://doi.org/10.21474/ijar01/12982> .



Thanks

Do you have any questions?