Quality of Life of Asthmatics Patients at Baghdad Teaching Hospitals

نوعية حياة مرضى الربو في مستشفيات بغداد التعليمية

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الخلاصة:

الهدف: تهدف الدراسة إلى تقييم نوعية حياة مرضى الربو في مستشفيات بغداد التعليمية.

المنهجية: أجريت دراسة وصفية في ردهات الباطنية في المستشفيات التعليمية في بغداد من 1 ديسمبر 2013 حتى 30 أبريل 2014، وهذه المستشفيات هي مستشفى الكرامة التعليمي، ومستشفى بغداد التعليمي، ومستشفى اليرموك التعليمي ، ومستشفى الكندي التعليمي. تم اختيار العينة من 50 مريض من المستشفيات التعليمية في بغداد، ومن ثم بناء أداة تتكون من جزئين ,الجزء الأول : تضمن المعلومات الديموغرافية للمريض , الجزء الثاني : تقييم المحور الجسمي والنفسي والاجتماعي لمرضى الربو. تم تحليل البيانات من خلال تطبيق الاحصاء الوصفي والاستدلالي التي تتضمن التكرار والنسب المئوية وشدة الفقرات.

النتائج: تشير النتائج إلى أن معظم مرضى الربو من الذكور وتتراوح أعمارهم (30-39) سنة ومعظم المرضى غير قادرين على القراءة والكتابة، ومعظم مرضى الربو من سكان المدن. وخلصت الدراسة إلى أن لا علاقة بين المحور الجسمي والنفسي والاجتماعي لمرضى الربو مع بعض المتغيرات(العمر، والجنس , والمستوى الثقافي) المحور الجسمي والنفسي والاجتماعي لمرضى الربو كانت جيدة.

الاستنتاج: استنتجت الدراسة إلى أن المحور الجسمي والنفسي والاجتماعي للمصابين بالربو المرضى المشاركين بشكل عام في مستوى جيد.

التوصيات: أوصت الدراسة بإعداد برامج لمرضى الربو الذين يحتاجون إلى مزيد من المساعدة لتحسين المحور الجسمي والنفسي والاجتماعي، وإنشاء وحدة العناية التنفسية التخصصية وتشمل تدريب الناس ليكون لديهم كمية كافية من المعرفة.

Abstract:

Objective: The study aims to assess the quality of Life of asthmatics patients.

Methodology: A descriptive study was conducted at the medical ward in teaching hospitals in Baghdad from date December 1st,2013 until April 30, 2014, and these hospitals is Al-karma teaching hospital, and Baghdad Teaching Hospital, and Al- Yarmuk Teaching Hospital, Al-Kinde Teaching Hospital . Selected a sample of 50 patients from teaching hospitals in Baghdad, and then build a tool composed of two parts: 1 - Part I: Socio- demographic characteristics 2 -Part II: evaluation of the physical and psychosocial domains quality of life for patients with asthma. The data were analyzed by applying descriptive and inferential statistics that include Frequency and percentages and the severity of paragraphs.

Results: The results indicate that most asthma patients were male and ages (30-39) and was the most patients are unable to read and write, and most patients with asthma from urban residents. The study concluded that there is no relationship between the physical, psychological and social situation of asthma patients with some of the variables (Age, Gender, Level of education) physical , psychological and social situation of patients with asthma were good.

Conclusion: Physical and psychosocial domains of participants' asthmatics patients in general is at a good level.

Recommendations: The study recommended the preparation of programs for patients with asthma to improve the physical and psychosocial domains, and the establishment of respiratory care unit specialists and includes people trained and have sufficient amount of knowledge.

Key word: physical, psychosocial, status, asthmatics, patients.

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INTRODUCTION:

Asthma is a common chronic disease that affects persons of all ages. People with asthma report impact on the physical, psychological and social domains of quality of life. Health-related quality of life (HRQoL) measures have been developed to complement traditional health measures such as prevalence, mortality and hospitalization as indicators of the impact of disease. In the global burden of asthma report of the Global Initiative for Asthma (GINA) the prevalence of asthma in different countries has been considered to range from 1% to 18% of the population. Both morbidity and mortality from asthma are significant. Social and economic factors are necessary for understanding asthma and its care, whether viewed from the perspective of the individual sufferer or the health care delivery system **(1)**.

Asthma affects people of all ages, but it most often starts during childhood. In the United States, more than 25 million people are known to have asthma. About 7 million of these people are children**(2)**. It can be classified based on severity, at the moment there is no clear method for classifying different subgroups of asthma beyond this system. Finding ways to identify subgroups that respond well to different types of treatments is a current critical goal of asthma research**(3).** It thought to be caused by a combination of genetic and environmental factors. Its diagnosis is usually based on the pattern of symptoms, response to therapy over time, and spirometry **(4).** It is the result of chronic inflammation of the airways which subsequently results in increased contractibility of the surrounding smooth muscles **(5).** A diagnosis of asthma should be suspected if there is a history of recurrent wheezing, coughing or difficulty breathing and these symptoms occur or worsen due to exercise, viral infections, allergens or air pollution. Spirometry is then used to confirm the diagnosis **(5).** The prognosis for asthma is generally good, especially for children with mild disease. Mortality has decreased over the last few decades due to better recognition and improvement in care. Globally it causes moderate or severe disability in 19.4 million people as of 2004 (16 million of which are in low and middle income countries) of asthma diagnosed during childhood, half of cases will no longer carry the diagnosis after a decade. Airway remodeling is observed, but it is unknown whether these represent harmful or beneficial changes. Early treatment with corticosteroids seems to prevent or ameliorates a decline in lung function **(6).** The fundamental problem in asthma appears to be immunological: young children in the early stages of asthma show signs of excessive inflammation in their airways. Epidemiological findings give clues as to the pathogenesis: the incidence of asthma seems to be increasing worldwide, and asthma is now very much more common in affluent countries. In 1968, Ando Szentivanyi first described The Beta Adrenergic Theory of Asthma; in which blockage of the Beta-2 receptors of pulmonary smooth muscle cells causes asthma **(7).** The study aims to assess the quality of Life of asthmatics patients.

METHODOLOGY:

A descriptive study was conducted on patients at Baghdad teaching hospitals. Data collection starts from December 1st 2013 through April 30, 2014. The study aimed to assess the quality of life of asthmatics patients. The study was carried out in four Teaching Hospitals in Baghdad City. This Teaching Hospital included Baghdad Teaching Hospital, Al-Karma teaching hospital, and Al- Yarmuk Teaching Hospital, Al-Kinde Teaching Hospital. A purposive non probability sample of (50) asthmatic patients admitted to medical wards in hospitals, (13) patient selected from Baghdad Teaching Hospital ,(12) patient was selected from Al-Kinde Teaching Hospital, (13) patient was selected from Al-Yarmuk Teaching Hospital and (12) patient was selected from Al-Karama Teaching Hospital .

In order to assess the physical and psychosocial domains of quality of life of asthmatics patients, the questionnaire consist of two parts: **Part I:** was presented with demographic characteristics of patient. Which consist of (age, gender, education level, occupation, marital status).

Part II: It includes the patient's knowledge about the physical and psychosocial domains of quality of life of asthmatics patients. A pilot study was conducting on five patients were selected randomly from Baghdad Teaching Hospital according to the criteria that have mentioned previously. Determination of reliability of the patients knowledge was based on the test retest reliability, the reliability was (80%) at the level ($p<0.05$) which was statistically acceptable.

Data collection: The investigator held a direct interview to obtain data from patients and used constructed questionnaire format that answered by interview.

Statistical analysis: Data were analyzed through the application of statistical procedures and using the package of SPSS version (16).

The following statistical procedures are used in this study:

1-Descriptive statistical approach (frequent and percentage)

2- Inferential statistical procedure (Linear regression and Correlation Coefficients, Chi- square).

RESULTS:

Table1. Participants' Socio-demographic and Clinical Characteristics (N= 50)

List	Variable	Frequency	Percent
1 Age (Years)	20-29	16	32
	30-39	19	38
	40-49	5	10
	50-59	4	8
	≥ 60	6	12
2 Gender	Male	31	62
	Female	19	38

3 Level of education	Unable to read and write	12	24
	Reads and write	10	20
	Primary school graduate	6	12
	Intermediate school graduate	10	20
	Preparatory school graduate	8	16
	Diploma	1	2
	College and above	3	6
4 Residency	Urban	43	86
	Rural	7	14
5 BMI:	Normal Body Weight	23	46
Mean (SD) = 24.89 (3.04)	Overweight	25	50
	Obese	2	4
	≤ 1	2	4
6 Duration of illness:	2-4	9	18
Mean (SD) = 1.27 (9.55)	5-7	7	14
	8-10	5	10
	≥ 11	27	54
7 Family Type	Nuclear	18	36
	Extended	32	64
8 Did any of your family	Yes	32	64
members has this disease?	No	18	36
9 If yes, what is the kinship	Father/Mother	17	53.1
(n = 32)	Uncle/Aunt (to father)	5	15.6
	Uncle/Aunt (to mother)	4	12.5
	Other	6	18.8
10 Do you smoke?	Yes	20	40
	No	30	60
11 If yes, what is the number of	< 20	9	45
cigarettes smoked daily:Mean	20-30	10	50
(SD) = 20.35 (6.459) (n = 20)	≥ 31	1	5
	> 5	1	5
12 Years of smoking: Mean (SD)	5-10	4	20
= 19.50 (11.574) (n=20)	11-15	6	30
	16-20	1	5
	[> 21]	8	40

Table (1) describes that (38%) of participants are within 30-39 years-old age group, most of them are males (62%), less than quarter of them are unable to read and write (24.0%), the majority of them live within urban areas (86%), the mean of BMI is 24.89 ± 3.04, half of them has overweight (50%), the mean of duration of illness is 1.27 ± 9.55, more than half of them have ≥ 11 years as a duration of illness (54%), most of them lives within extended families (64%). Most of them report that they have a family members who has this disease (64%), most of family members who have reported as having this disease is father/ mother (53.1%), most of them report that they do not smoke (60%), the mean of cigarettes smoked daily is 20.35 ± 6.459, half of smokers report that they smoke between 20-30 cigarettes daily (50%), the mean of years of smoking is 19.50 ± 11.574, and (40%) of smokers report that they smoke for > 21 years.

Table 2. Mean and Standard Deviation of physical domains of asthmatics patients.

List	Physical status	Mean (SD)	Assessment
1-Pain &	Feel pain and discomfort when I perform a work	2.54 (0.503)	G

Discomfort	Feel pain and chest tightness	2.62 (0.490)	G
	Feel dyspnea and discomfort	2.60 (0.495)	G
	Feel tired when performing physical exercise	2.80 (0.404)	G
	Feel tired quickly when you work	2.74 (0.443)	G
	Experience difficulty in climbing stairs	2.68 (0.471)	G
Activities of Daily Living	My physical fitness is limited because of asthma	2.84 (0.422)	G
	Feel tired when you perform something that doesn't require an effort	2.32 (0.653)	F
	My illness prevents me from practicing physical exercises	2.72 (0.497)	G
	Feel tired and fatigue	2.64 (0.485)	G
	Feel tired to spend time with friends	2.12 (0.659)	F
Sleep &Rest	My sleeping became interrupted	2.62 (0.530)	G
	My sleeping became little	2.66 (0.519)	G
	Experience insomnia because of dyspnea	2.70 (0.505)	G
	Mean=2.74 (0.443)		

Cut-off-point: 1- 1.67 = Poor; 1.68- 2.33 = Fair; 2.34 – 3.00 = Good

Table (2) reveals that in regards to physical domains of asthmatics patients, it shows that asthmatics patients, is at a fair level in the items (2.8, 2.5) (2.12 ± 0.659), (2.32 ± 0.653) respectively, and it is at a good level for the rest items, and the physical domains in general is at a good level (2.74 ± 0.443).

Table 3. Mean and Standard Deviation of psychosocial domains of asthmatics patients.

Psychosocial status	Mean (SD)	Assessment
1. Feel anxious because of disease	2.40 (0.571)	G
2. Feel the fear of the future	2.34 (0.519)	G
3. Bothered because of not making works made by others	2.52 (0.580)	G
4. I think with the disease complications and its treatment	2.42 (0.642)	G
5. My illness made feel the suffering of other patients	2.68 (0.471)	G
6. I experience the responsibility of home and its requirements	2.48 (0.677)	G
7. You have problems in work because of your illness	2.62 (0.567)	G
8. You suffer from others' treatment for you as a patient	1.80 (0.782)	F
9. Do not participate in social occasions in general	1.96 (0.669)	F
10. There is no one who can help me in getting treatment	1.72 (0.607)	F
11. You experience economic problems that lead to deterioration of your social life	1.72 (0.809)	F
12. You suffer from continuous discomfort	2.48 (0.544)	G
13. I do not enjoy a quiet life with family and friends	2.00 (0.670)	F
Total	2.38 (0.602)	G

Cut-off-point: 1- 1.67 = Poor; 1.68- 2.33 = Fair; 2.34 – 3.00 = Good F = Fair; G = Good

Table (3) concerning the psychosocial domains, participants' asthmatics patients, is at a fair level in the items (4.10, 4.11, 4.8, 4.9, 4.13) (1.72 ± 0.607), (1.72 ± 0.809), (1.80 ± 0.782), (1.96 ± 0.669), (2.00 ± 0.670) respectively, and the psychosocial domains in general is at a good level (2.38 ± 0.602).

Table 4. Association between Age and physical and psychosocial domains of asthmatics patients.

Age	physical and psychosocial domains of asthmatics patient		Total	df	Chi- square
	Fair	Good			
20-29	9 (50%)	7 (21.9%)	16 (32%)	4	0.094

30-39	7 (38.9%)	12 (37.5%)	19 (38%)
40-49	0 (0.0%)	5 (15.6%)	5 (10%)
50-59	0 (0.0%)	4 (12.5%)	4 (8%)
≥ 60	2 (11.1%)	4 (12.5%)	6 (12%)
Total	18 (100%)	32 (100%)	50 (100%)

Table (4) reveals that (37.5%) of participants who have good physical and psychosocial domains of asthmatics patients are within 30-39 years-old age (37.5%), and there is no association between age group and physical and psychosocial status of asthmatics patients (P value = 0.094).

Table 5. Association between Gender and physical and psychosocial domains of asthmatics patients.

Gender	physical and psychosocial domains of asthmatics patient		Total	df	Chi- square
	Fair	Good			
Male	11 (61.1%)	20 (62.5%)	31 (62%)		
Female	7 (38.9%)	12 (37.5%)	19 (38%)	1	0.923
Total	18 (100%)	32 (100%)	50 (100%)		

Table (5) describes that most of participants who has good physical and psychosocial domains of asthmatics patients is male (62.5%), and there is no association between gender and physical and psychosocial domains of asthmatics patients (P value = 0.923).

Table 6. Association between Participants' level of education and physical and psychosocial domains of asthmatics patients.

Level of Education	physical and psychosocial domains of asthmatics patient		Total	Df	Chi- square
	Fair	Good			
Unable to read and write	1 (5.5%)	11 (34.4%)	12 (24%)		
Reads and write	5 (27.8%)	5 (15.6%)	10 (20%)		
Primary school graduate	4 (22.2%)	2 (6.25%)	6 (12%)		
Intermediate school graduate	2 (11.1%)	8 (25%)	10 (20%)	6	0.077
Preparatory school graduate	5 (27.8%)	3 (9.4%)	8 (16%)		
Diploma	0 (0.0%)	1 (3.1%)	1 (2%)		
Collegian and above	1 (5.5%)	2 (6.25%)	3 (6%)		
Total	18 (100%)	32 (100%)	50 (100%)		

Table (6) reveals (34.4%) participants who has good physical and psychosocial domains of asthmatics patients are unable to read and write and there is no association between level of education and physical and psychosocial domains of asthmatics patients (P value = 0.077).

Table 7. Association between Residency and physical and psychosocial domains of asthmatics patients.

Residency	physical and psychosocial domains of asthmatics patient		Total	df	Chi- square
	Fair	Good			
Urban	13 (72.2%)	30 (93.8%)	43 (86%)		
Rural	5 (27.8%)	2 (6.2%)	7 (14%)	1	0.035
Total	18 (100%)	32 (100%)	50 (100%)		

Table (7) demonstrates that the vast majority of participants who has good physical and psychosocial domains of asthmatics patients' lives in urban areas (93.8%), and there is an association between residency and physical and psychosocial domains of asthmatics patients' (P value = 0.035).

Table 8. Association between Occupation and physical and psychosocial domains of asthmatics patients.

Occupation	physical and psychosocial domains of asthmatics patient		Total	df	Chi-square
	Fair	Good			
Governmental employee	4 (22.2%)	3 (9.4%)	7 (14%)		
Self-employed	4 (22.2%)	5 (15.6%)	9 (18%)		
Retired	1 (5.5%)	2 (6.25%)	3 (6%)		
Housewife	3 (16.7%)	18 (56.25%)	21 (42%)	5	0.035
Not working	1 (5.5%)	3 (9.4%)	4 (8%)		
Student	5 (27.8%)	1 (3.1%)	6 (12%)		
Total	18 (100%)	32 (100%)	50 (100%)		

Table (8) describes that more than half of participants who has good physical and psychosocial domains of asthmatics patients and they were housewives (56.25%), and there is an association between occupation and physical and psychosocial domains of asthmatics patients (P. value = 0.035).

DISCUSSION:

Asthma is one of the major causes of morbidity and has a major impact on physical status and psychosocial status of patients. The finding showed that the majority of the study sample was at age (30-39) year and most of them are male that represent (62%), less than quarter of them are unable to read and write (24.0%), the majority of them live within urban areas (86%), the mean of BMI is 24.89 ± 3.04, half of them has overweight (50%), the mean of duration of illness is 1.27 ± 9.55, more than half of them have ≥ 11 years as a duration of illness (54%), most of them lives within extended families (64%).

This results of the study which are disagree with (Kalpaklioğlu, Baççioğlu, (2008) which found the majority of their sample were female, Health related QoL was more limited compared to male patients and limitation was more for Symptoms domain. There was an impairment in HRQoL in underweight (BMI <18.5) and overweight (BMI >25) patients compared to patients with normal BMI. In obese (BMI >30) patients the impairment in HRQoL was more severe compared to other groups except in Emotional function domain. In overweight and underweight patients the Symptoms domain was more impaired unlike obese patients where impairment was more severe in Environmental stimuli domain. The HRQoL was less impaired in asthma patients <30 years than patients between 30 and 50 years, but more impaired than patients >50 years as well as increasing age (table 1) [(8)].

Naleway and Vollmer, (2006) found that women have poorer outcomes for asthma than men regarding HRQoL and symptoms, and our study supports this. For women with asthma, fluctuations in endogenous hormone levels are correlated with changes in their asthmatic condition [(9)].

Concerning the physical domains of asthmatics patients the present study indicated that participants' asthmatics patients is at a fair level in the items 2.8, 2.5 (2.12 ± 0.659),

(2.32 ± 0.653) respectively, and it is at a good level for the rest items, and the physical domains in general is at a good level (2.74 ± 0.443) (table 2).

In the study carried out by Leander; et al,(2010). It was showed that the oldest age group with asthma had a significantly lower physical well-being score than the younger age groups but the social wellbeing was significantly lower among the middle aged [10] .

Concerning the psychosocial domains, participants' asthmatics patients is at a fair level in the items 4.10, 4.11, 4.8, 4.9, 4.13 (1.72 ± 0.607), (1.72 ± 0.809), (1.80 ± 0.782), (1.96 ± 0.669), (2.00 ± 0.670) respectively, and the psychosocial domains in general is at a good level (2.38 ± 0.602) (table 3). This result of the study was disagreeing with (Dales& Spitzer, (2003); Janson& Bjornsson, (2003)). These studies are important because they highlight the powerful influence of psychological status on self-reported respiratory status [11,12] .

The result of this study reflects there is no association between the age group, gender, level of education and physical and psychosocial domains of asthmatics patients (P. value = 0.094), (P value = 0. 923), (P. value = 0.077) respectively, (table,4,5,6) . These results were in disagreement with (Murray and Nadel's, 2010) which concluded that asthma is twice as common in boys as girls, In contrast adult women have a higher rate of asthma than men and it is more common in the young than the old [13] .

In young asthma patients there is comparatively better physical activity and emotional less burdened by the family crises which may be responsible for better HRQoL. The family-centered care for elderly patients may contribute for better HRQoL. The elderly patients are better adapted to the disease condition because of longer exposure that may explain the better HRQoL seen in them [14] . Finally the results of the study shows that there is an association between residency, occupation and physical and psychosocial status of asthmatics patients (P. value = 0.035), (P value = 0.035) respectively, (table 7, 8). These results of the study which are agree with (Baur and Aasen, 2012) which found that asthma is a result of workplace exposures, is a commonly reported occupational disease. It is estimated that 5–25% of asthma cases in adults are work–related [15].

CONCLUSION:

Physical and psychosocial domains of participants' asthmatics patients in general is at a good level.

RECOMMENDATION:

1-Education program can be designed for patients with asthma to improve the physical and psychosocial status.

2-Respiratory Care Unit is Considerable area, requiring specialized knowledge and training.

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