

Health locus of control related daily living activities during COVID 19 pandemic as an indicator of Bronchial Asthma

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Abstract

Background: Bronchial asthma is a widespread chronic airway inflammatory disease, and it is characterized by paroxysmal or continual respiratory manifestations and airway airflow limitations. Accordingly, coronavirus disease 2019 (COVID-19) impact on quality of life including daily living activities come into views to be highly misjudged, especially in patients who have not been admitted to the hospital.

Aim: To find out relationship between health locus of control and daily living activities among adult patients with bronchial asthma during Covid 19 Pandemic at Port- said city in Egypt.

Subject and methods: A descriptive cross-sectional study was carried out on a total of 230 adult patients from both sex with bronchial asthma attend medical chest clinics in Alsalam, Por – fouad, Algawhara governmental hospital at Port-said city, Egypt responded to the self-administered survey and excluded patients with co- morbid diseases and were refused to participate in the study using self-administered survey divided into three main parts. First part consist of 8 items related to demographic data, second part: Patient's knowledge regarding bronchial Asthma adapted from Williams., 2005, third part: it adapted from Putman., 2004 to assess the effect of covid 19 on bronchial asthma patient's daily living activities and locus of control.

Results: there are a statistically significant relation between total scores of locus of asthma control and smoking pattern $p = (0, 003)$ with total Mean scores and SD 28.52 ± 4.43 . Also, there are a positive correlation between total daily living activities scores and total locus of control among patients with Bronchial Asthma. Finally, there are a statistically significant relation between total daily living activities scores and Bronchial Asthma patients and their socio-demographic characteristics only in the items related to patient's residence $P_s = (0.082)$.

Conclusion: Patient with Bronchial Asthma need for receive regular; periodic in-service coping program contains methods of adherence with their daily living activities, knowledge of their disease which indirectly added stressor on patient's life and indirectly affect their disease management and coping especially in the period of Corona virus Pandemic which added stressors of those patients. Further studies are needed to study the coping strategies that influence bronchial Asthma patient's locus of control, management and coping with their disease with a large geographical areas and sampling.

Keywords: Health Locus of control; Daily living activities; Indicator; Bronchial Asthma; Patient; Covid 19 pandemic

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1. Introduction

Bronchial asthma is a widespread chronic airway inflammatory disease, and it is characterized by paroxysmal or continual respiratory manifestations and airway airflow limitations. As well, it has an association with the modify of respiratory stream, thickening of airway wall and other factors. Patients with acute asthma frequently require hospitalization, and severe cases can still make threats to their lives and has a positive effect on the treatment of patients with acute bronchial asthma [1]. Asthma is the widespread respiratory disease and one of constantly increasing burden. Asthma has concerned a chief or scientific and clinical attention. With a variety of clinical and pathophysiological features of asthma having been wide-ranging examined, the significant association between asthma and physical activity continues underappreciated and lacking discovered [2].

However, coronavirus disease 2019 (COVID-19) impact on quality of life including daily living activities come into views to be highly misjudged, especially in patients who have not been admitted to the hospital. It can be assessed using health status questionnaires related to patient's condition as in patients with a novel disease such as COVID-19 pulmonary function may be impaired and dyspnea is one of the mainly widespread symptoms in patients with COVID-19 [3]. Statistically, there is a restricted data in literature on how coronavirus disease-2019 (COVID-19) pandemic period influences people with asthma [4].

Asthma presents with varying levels of severity, ranked from mild, intermittent disease to severe manifestations with life-threatening which considered as "severe" if it is uncontrolled even with adherence to therapy or get worse with step-down of high-dose treatments. Severe asthma influences only a minority of all patients with asthma and prevalence can vary from country-to-country, due largely to difference between clinical and epidemiological concerns. Moreover, Asthma is commonly associated with various comorbidities and associated conditions that may allocate with asthma, its phenotype and treatment response. Nearly all common co-morbidities are rhinitis, sinusitis, gastroesophageal reflux disease, obstructive sleep apnea, hormonal disorders, and psychopathologies [5].

Health locus of control defined as individual beliefs based on past occurrence in health problems and having external or internal control over them, could influence health. Health locus of control takes part in a role in health manners. Individuals with internal locus of control measure up to those with external locus of control are additional likely to actively use coping strategies focused on solving problems. Concept generates the help-seeking behaviour of patients. Patients with opportunity for health locus of control beliefs are proving to their health condition is manipulated by fate, luck, or random occasions [6].

Health locus of control plays an important role in health manners and beliefs as an intermediary part of the route between individual condition, social class, and health appearances in order to change performance, health locus of control has been the hypothesis that the model is based on the close connection between health locus of control and health performance, intellect of control and self-care are in the process of tolerant responsibilities [7].

The magnitude of understanding the impact of disease and treatment on Health-Related Quality of Life (HRQoL) which indirectly affect daily living activities has given augment to an increasing use of patient self-report and observer or substitute tools (Germain et al.,2019) . Otherwise, satisfaction with health performance includes nutrition, sleep, rest, and physical activity and stress management. Furthermore, the majority of emergency medical personnel does not have any physical activity or exercise except their work and do not have appropriate management and control over stress in working [7].

Finally, the effect of patients with chronic illnesses often come across physical, social, psychological and financial confronts enforced by the burden of medicines they take regularly. Medication-related trouble such as adverse effects, medicine associated social or financial burden, and restrictions on daily living activities caused by medicines are often occurrence and has potential negative outcomes on their health. For patients, an enhancement in wellbeing and functioning may be more significant than positive outcomes of biomedical indicators [8].

Aim of the study

This study aims to find out relationship between health locus of control and daily living activities among adult patients with bronchial asthma during Covid 19 Pandemic at Port- said city in Egypt.

1.1. Research questions

- What is the health locus of control levels among patients with bronchial asthma at Port- said city in Egypt?

- Is there a relation between health locus of control and daily living activities during Covid 19 Pandemic among patients with bronchial asthma?
- Is there a relation between patient's daily living activities and their socio demographic characteristics?

1.2. Conceptual framework

According to Heydari et al., 2015 [6] the locus of control construct considered as the subjective beliefs of control that patients have over illness and health which applying Rotter's social learning theory nested from Rotter, 1972 to the patients with chronic diseases, three different styles of health - and illness - related locus of control cognitions have been described, symbolizing illness occurrence of manifestations control. Internal locus of control represents the belief that one's own behaviour is regarded as significant for one's of health condition. This attitude for active coping strategies is important for patients with Asthma.

Measuring quality of life (QoL) has become an increasingly imperative dimension of assessing patient health and drug adherence and indirectly affect patient's daily living activities. The concept of health-related quality of life (HRQoL) refers to the part of QoL which is primarily manipulated by health condition on disease-specific tools in asthma characterized by airflow limitation causing symptoms of wheezing, breathlessness, chest tightness, and coughing [9].

2. Subjects and methods

A descriptive cross-sectional study was carried out on a total of 230 adult patients from both sex with bronchial asthma attend medical chest clinics in Alsalam ,Por – fouad , Algawhara governmental hospital at Port-said city , Egypt responded to the self-administered survey and excluded patients with co- morbid diseases and were refused to participate in the study.

2.1. Survey instruments

Data was gathered using a three-part self-administered questionnaire: First part consist of 8 items related to demographic data as age, marital status, residence, smoking, comorbid diseases ...etc. Second part: Patient's knowledge regarding bronchial Asthma: it includes 12 items related to risk factors, clinical manifestations adapted from Williams., 2005 [10]. Third part: it adapted from (Putman., 2004) [11] to assess the effect of covid 19 on bronchial asthma patient's daily living activities and locus of control which daily living activities considered as 8 items related to shopping, bathing, telephone use, dressing etc. and 6 items to assess locus of control as wake up at night, controlling of asthma symptoms, controlling of breathlessness etc. There were four alternative responses to each question: 1) Not at all, 2) Most of the time, 3) sometimes, and 4) Always. Each response was given a value from 1 to 4, with highest scores indicating goo daily living activities.

2.2. Methods of data collection

This study was covered in four phases

2.3. Content Validity of tools

Five experts from medical surgical nursing medicine professor and community family health nursing professors in the field had ascertained it. Their opinions were elicited as regards clarity and comprehensiveness of questions.

2.4. Reliability

Was carried out by using Cronbach alpha test = 0.092.

2.5. Pilot study

A pilot study was conducted after the development of the questionnaire and before starting the data collection on 10 % (n=23) of patients to test the applicability, feasibility and to ensure easy understandability for ordinary patient's and to explore any unclear points of the study tool. It served to estimate the time needed to complete the questionnaire.

2.6. Fieldwork

The actual fieldwork started at four months from 20th December 2020 until 1st August 2021 with a break for 2 months for a total 6 months to finish data collection because corona virus outbreak, a formal letter was issued from the directorate of hospital outpatient clinics in order to approve the study. Informed verbal consent was obtained from all

participants to participate in the study and confidentiality was maintained by assuring security and privacy to all participants. The interview lasted an average of 30-40 minutes for each patient with the researchers to obtain the exact meaning from them for three days weekly mainly Sunday, Tuesday and Thursday each week. Researchers read questionnaires and explained each element simply and briefly for the study sample before start to answer the questionnaire.

2.7. Ethical consideration

The approval was taken from the hospital directors to collect the data and meet the patients, head nurses of selected hospitals also approved for this study. The participants gave their informed consent orally, which stated the research objective and goal, their voluntary involvement, their right to autonomy and secrecy, and their freedom to withdraw from the study.

2.8. Data analysis

Data were fed to the computer and analyzed using IBM SPSS software package version 20.0.⁽²⁾ Qualitative data were described using number and percent. Quantitative data were described using mean and standard deviation. Comparison between different groups regarding categorical variables was tested using Chi-square test. When more than 20% of the cells have expected count less than 5, correction for chi-square was conducted using Monte Carlo correction. For normally distributed data, comparison between two independent population were done using independent t-test while more than two population were analyzed F-test (ANOVA) to be used. Correlations between two quantitative variables were assessed using Pearson coefficient. Significance test results are quoted as two-tailed probabilities. Significance of the obtained results was judged at the 5% level.

2.9. Limitation

The corona virus outbreak is limited the flow rates of patients which the study collects number of participants less than the researcher plan because the grantee for corona virus.

3. Results

Table (1) illustrates a total of 230 Asthmatic patients who participated in the study, slightly more than half (52.6%) of the bronchial asthma patients between 18-29 years old followed by (51.7 %)of them female , (50.4%) of them single , (47%) university level of education , while half of studied sample (50.7%) were worked , (62.6%) lived in city residence . Finally, most of them (80.4%) nonsmokers and (63.9%) of them have relative smokers.

Table (2) shows that slightly more than half of studied sample (54.3%) experience asthma attack 5 times with the most of them (81.3%) used prescribed inhaler medication

As indicated in Table (3), Illustrates that there are a statistically significant difference of asthmatic patients knowledge regarding their disease in all items of knowledge with Ps= (0.003, 0.001) respectively

Table 4 describe daily living activities for bronchial asthma patients during Covid 19 outbreak , the most of the bronchial asthma patients (87.8%) can used and contact telephone easily daily followed by(64.8 %)of them can Shopping by them self , (62.3%) of them able to prepare food with them self , (42.2%) able to Clean their house and doing simple duties with them self, while slightly more than half of studied sample (55.7%) were Washing and clean clothes and travel with themselves , (70.4 %) able to take and prepare their medications by them self. Finally, most of them (83.5%) Can wear any type of clothes and (76.1%) of them can go upstairs, (85.2%) able to bathing independently

Table 5 showed that there are Locus of asthma control during Covid 19 outbreak, there are a statistically significant difference in all items related to the locus of asthma control Ps=(0,001, 0.007) respectively with total Mean scores and SD 17.0 ± 4.38

Table 6 showed a relationship between Locus of asthma control during Covid 19 outbreak and smoking pattern, there are a statistically significant relation between total scores of locus of asthma control and smoking pattern Ps=(0,003) with total Mean scores and SD 28.52 ± 4.43

Table 7 showed that there are a positive correlation between total daily living activities scores and total locus of control among patients with Bronchial Asthma

Table 8 showed that there are a statistically significant relation between total daily living activities scores and Bronchial Asthma patients and their socio-demographic characteristics only in the items related to patient's residence $P_s=(0.082)$

Figure 1 shows that most of bronchial Asthma patient's knowledge regarding predisposing factors of their disease (87 %) from some foods while (78.7%) from non-ventilated home, (73%) from Cold and humid

Figure 2 shows that (84.8 %) of asthmatic patients experience breathlessness as a sign of asthma followed by (77 %) experience chest tightness', while (75.2%) experience chest crepitating sign

Table 1 Distribution of studied cases according to Socio-demographic data

Socio-demographic data	No.	%
Age		
18 - 29	121	52.6
30 - 39	57	24.8
40 - 49	25	10.9
50 - 59	22	9.6
60 - 69	4	1.7
Moe - 70	1	0.4
Sex		
Female	119	51.7
Male	111	48.3
Marital status		
Single	116	50.4
Married	103	44.8
Divorced	9	3.9
Widow	2	0.9
Education		
Illiterate	21	9.1
Primary	14	6.1
Moderate	36	15.7
Secondary	51	22.2
University	108	47.0
Occupation		
Work	116	50.4
Not work	49	21.3
Housewife	7	3.0
Student	58	25.2
Residence		
Rural	26	11.3
City	144	62.6
State	60	26.1
Smoking		
Yes	45	19.6
No	185	80.4
Relative smoking		
Yes	83	36.1
No	147	63.9

Table 2 Distribution of studied cases according to Bronchial Asthma history

Bronchial Asthma history	No.	%
Frequency of presence of bronchial Asthma / week		
1 - 3	63	27.4
3 - 5	35	15.2
5 - above	125	54.3
4	7	3.0
Medication		
Inhaler	187	81.3
IV	16	7.0
Tabs	16	7.0
Nublizer	5	2.2
Do not know	6	2.6

Table 3 Distribution of studied cases according to their knowledge regarding Bronchial Asthma

Patient's knowledge	True		False		I don't know		χ^2	p
	No.	%	No.	%	No.	%		
No cure from asthma	101	43.9	64	27.8	65	28.3	11.591*	0.003*
Inhaler is best	105	45.7	92	40.0	33	14.3	38.409*	<0.001*
No exercise	141	61.3	78	33.9	11	4.8	110.252*	<0.001*
No visit to Dr	132	57.4	84	36.5	14	6.1	91.861*	<0.001*
Asthma main cause for non punchual	77	33.5	131	57.0	22	9.6	77.487*	<0.001*
Asthma droplet disease	39	17.0	163	70.9	28	12.2	146.617*	<0.001*
Asthma is psychological exhaustion	66	28.7	124	53.9	40	17.4	48.243*	<0.001*
Seas of asthma attack means curing	59	25.7	134	58.3	37	16.1	67.470*	<0.001*
PT know where is going during attack	167	72.6	45	19.6	18	7.8	164.409*	<0.001*
Asthma disease occur during childhood	59	25.7	127	55.2	44	19.1	51.035*	<0.001*

χ^2 : Chi square test; *: Statistically significant at $p \leq 0.05$

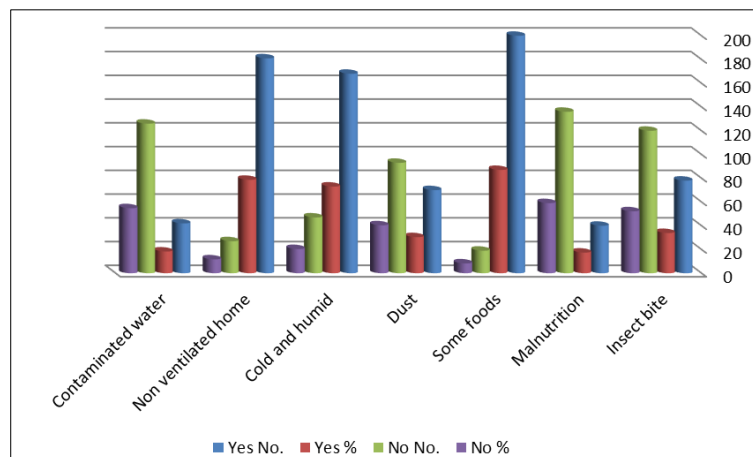


Figure 1 Distribution of studied cases knowledge regarding predisposing factors of Bronchial Asthma

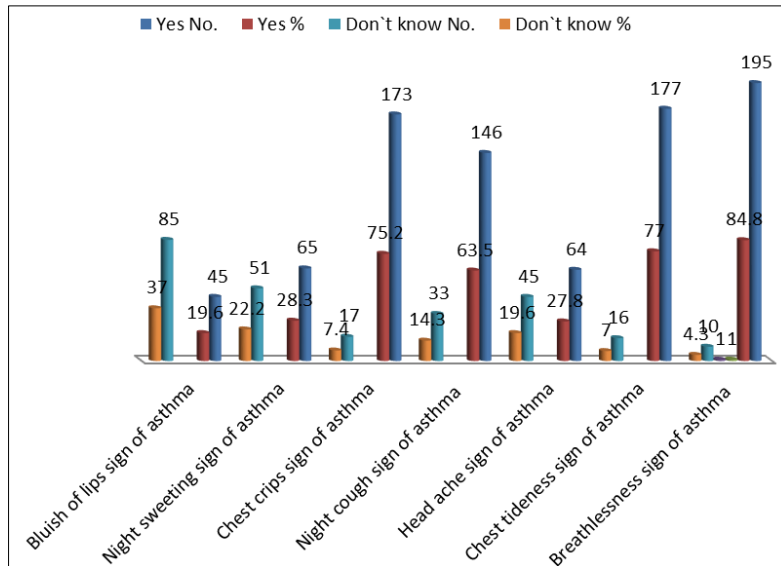


Figure 2 Distribution of studied cases according to their Bronchial Asthma manifestations

Table 4 Distribution of studied cases according to their Daily living Activities

Daily living Activities	No.	%
Ability of using telephone		
Dail telephone -answer it	156	67.8
Answer only-cannot dail	23	10.0
Cannot use it	51	22.2
Ability of shopping		
Shopping by my self	149	64.8
Shopping with assistance	31	13.5
Cannot shopping	50	21.7
Ability of preparing food		
Prepare food by my self	143	62.3
Prepare some -not suitable	38	16.5
Other people serve me	49	21.3
Ability of doing house hold		
Cleaning my house by my self	97	42.2
Do some -small things	97	42.2
I'm Not share in house hold	36	15.7
Ability of cleaning washing clothes		
Washing -clean clothes by my self	128	55.7
Clean-wash simple thing	63	27.4
Others do it to me	39	17.0
Responsibility of having medication		
Can take medication or prepare it by my self	162	70.4
Others help me to take medication	53	23.0
I cannot take medication by my self	15	6.5
Way of transportation -travelling		

I can travel -drive car alone	128	55.7
Accompany others when move	77	33.5
I'm not move or travel at all	25	10.9
Put on clothes /dressing		
Can wear any type of clothes	192	83.5
Need help	30	13.0
Depend on other	8	3.5
Go up stairs		
I can go up stairs	175	76.1
I need help	50	21.7
Not go out because of stairs	5	2.2
Bathing		
Bathing by myself always	196	85.2
I need help	26	11.3
Depend on others	8	3.5
Total QOL score (n=230)		
Min. - Max.	12.0 - 33.0	
Mean ± Sd.	28.0 ± 4.73	

Table 5 Distribution of studied cases according to their locus of Asthma control

locus of Asthma control	Always		Most of time		Sometimes		Not at all		χ ²	p
	No.	%	No.	%	No.	%	No.	%		
Do you wake up at night	37	16.1	39	17.0	89	38.7	65	28.3	31.496*	<0.001*
Last week how do you c/o asthma symptoms	32	13.9	50	21.7	84	36.5	64	27.8	25.235*	<0.001*
To what extend do asthma limit your life	23	10.0	44	19.1	96	41.7	67	29.1	51.217*	<0.001*
Last week for what extent you c/o breathlessness	32	13.9	54	23.5	83	36.1	61	26.5	23.043*	<0.001*
Last week do you hear chest crips	36	15.7	58	25.2	70	30.4	66	28.7	12.017*	0.007*
Do you take over dose to control signs of asthma	36	15.7	35	15.2	42	18.3	117	50.9	82.591*	<0.001*
Total Asthma Control score (n=230)										
Min. - Max.	6.0 - 24.0									
Mean ± SD.	17.0 ± 4.38									

χ²: Chi square test; * statistically significant at p ≤ 0.05

Table 6 Relationship between Bronchial Asthma patient's total locus of control scores and smoking pattern

Locus of control scores	Smoking		t	p
	Yes (n=45)	No (n=185)		
Min. - Max.	16.0 - 33.0	12.0 - 33.0	3.098*	0.003*
Mean ± SD.	25.84 ± 5.36	28.52 ± 4.43		
Median	27.0	30.0		

t: Student t-test; *: Statistically significant at p ≤ 0.05

Table 7 Correlation between daily living activity asthmatic patient's loci of control

	Total Asthma Locus of Control score	
	r	p
Total Daily living Activities score	0.014	0.834

r: Pearson coefficient

Table 8 Relationship between socio-demographic characteristics regarding total daily living activities scores

socio-demographic characteristics	Total daily living activities Scores		Test of Sig	p
	Min. - Max.	Mean ± SD.		
Age				
18 - 29	18.0 - 33.0	28.01 ± 4.41	F=0.638	0.671
30 - 39	12.0 - 33.0	27.28 ± 5.37		
40 - 49	16.0 - 33.0	28.24 ± 5.33		
50 - 59	18.0 - 33.0	29.23 ± 4.10		
60 - 69	22.0 - 33.0	29.0 ± 5.23		
more - 70	30.0 - 30.0	30.0 ± -		
Sex				
Female	12.0 - 33.0	27.89 ± 4.77	t=0.347	0.729
Male	18.0 - 33.0	28.11 ± 4.72		
Marital status				
Single	18.0 - 33.0	28.27 ± 4.43	F=0.607	0.611
Married	12.0 - 33.0	27.70 ± 4.99		
Divorced	18.0 - 32.0	27.22 ± 6.04		
Widow	29.0 - 33.0	31.0 ± 2.83		
Education				
Illiterate	18.0 - 33.0	27.14 ± 4.98	F=0.602	0.661
Primary	20.0 - 33.0	29.14 ± 4.17		
Moderate	16.0 - 33.0	28.36 ± 4.76		
Secondary	18.0 - 33.0	28.37 ± 4.78		
University	12.0 - 33.0	27.71 ± 4.75		
Job				
Work	12.0 - 33.0	28.10 ± 4.94	F=1.882	0.114
Not work	19.0 - 33.0	26.96 ± 4.70		
Housewife	18.0 - 33.0	25.57 ± 6.08		
Student	22.0 - 33.0	29.82 ± 3.78		
Else	19.0 - 33.0	28.59 ± 4.02		
Residence				
Rural	18.0 - 33.0	25.77 ± 4.87	F=3.312*	0.038*
City	12.0 - 33.0	28.26 ± 4.52		
State	16.0 - 33.0	28.33 ± 5.0		
Home population				
1 - 2	19.0 - 33.0	27.14 ± 4.75	F=2.260	0.082
3	12.0 - 33.0	26.81 ± 5.47		
4	18.0 - 33.0	26.58 ± 5.14		
5 - above	16.0 - 33.0	28.51 ± 4.49		

F: F test (ANOVA); t: Student t-test; *: Statistically significant at $p \leq 0.05$

4. Discussion

Bronchial Asthma effects negatively physical activity. As well, poor physical activity may direct worsen asthma consequences [2]. However, when need to measure daily living activities, its dimensions equal to Health related quality of life (HRQoL) which reveals the impact of a chronic disease, such as asthma, from a patient viewpoint in order to reducing respiratory co-morbidities and cost obstacles to improve HRQoL in asthmatic late midlife adults [12].

Regarding sociodemographic characteristics, the present study revealed that slightly more than half of the bronchial asthma patients between 18-29 years old, female, worked, and single, while below half of them have a university level of education, lived in city residence. Finally, most of them nonsmokers and more than half of them have relative smokers, slightly more than half of studied sample experience asthma attack 5 times with the most of them used prescribed inhaler medication. These findings go in the same line with [7].

Concerning Asthmatic patient's knowledge. The present study revealed that there is a statistically significant difference of asthmatic patient's knowledge regarding their disease in all items of knowledge. In addition to, most of bronchial Asthma patient's knowledge regarding predisposing factors of their disease from some foods, non-ventilated home, and from Cold and humid. Also, the most of asthmatic patients experience breathlessness as a sign of asthma followed by experience chest tightness, and chest crepitating sign. This finding goes in the same line with [13]. who insisted on the importance of provides novel evidence on knowledge and psychological resources among patients with asthma, which are associated with improved asthma outcomes.

As regard daily living activities for bronchial asthma patients during Covid 19 outbreak, the present study revealed that the most of the bronchial asthma patients can used and contact telephone easily daily followed by the ability to Shopping by them self-more than half of them able to prepare food with them self, washing and clean clothes and travel, clean their house and doing simple duties with them self. While more than half of them able to take and prepare their medications, can wear any type of clothes, and go upstairs, and able to bathing independently. These findings goes in the same way with [4]. who stressed on living activities through pandemic, patients with asthma are more inactive than healthy individuals regardless of the presence of a chronic disease; pandemic negatively affected stress, fear levels and sleep, quality of life. In order to reduce the effects of limits and psychological burden caused by pandemic and to motivate patients with asthma to perform physical activities. While, Woods et al., 2016[14]. in the United States who necessitated on that older adults reporting poor asthma control are more similarly to have ADL limitations than those with controlled asthma, although one-time spirometry may not adequately identify those at risk of physical harm from asthma.

In Netherland Meys et al., 2020 [3] recommended that further research should focus on the possibilities and attributes of a combined tool to represent quality of life in patients recovering from COVID-19, who have been symptomatic for an extended period of time. Also, exploring the impact of COVID-19 and highlights the importance of a comprehensive evaluation of possible underlying causes, patients' needs in order identify relevant rehabilitative interventions to effectively return health and quality of life.

In Australia, Mohammed et al., 2018 [8] concluded that there is a range for an outlook research in the development of an alternative determine appropriate for evaluation of the burden of medicine and the impact of interventions on quality of life effects. In Greece, Panagiotou et al., 2020[2] stressed on the effect of daily physical activity and exercise training on the pathology and clinical outcomes of asthma and recaps the evidence on interventions targeting physical activity in asthma.

From another point of views, Germain et al., 2019 [15] highlighted on that there is a require to carry out research in order to develop theoretical models of HRQoL that are specific to children at different developmental stages, in order to evaluate and support new and subsisting measures for paediatric HRQoL and their use in clinical practice as well as clinical trials.

Regarding a relationship between Locus of asthma control during Covid 19 outbreak and smoking pattern, the present study revealed that there are a statistically significant relation between total scores of locus of asthma control and smoking pattern with total Mean scores and SD 28.52 ± 4.43 . Additionally, that there are a positive correlation between total daily living activities scores and total locus of control among patients with bronchial Asthma. These findings goes in the same way with van't Hul et al., 2016[16] concluded that bronchial asthma in adults is linked with a major decline in physical activity as compared to apparently healthy controls and is accompanied by a lower perceived health condition of PA as potential pathway to better the result of care for these patients.

In Italy, organization of an outpatient for the treatment of severe asthma, with its committed pathway and multidisciplinary approach, may allow a stricter control of asthma and optimization of therapies, on top of minimization of drug mishandling [5,17].

In Iran Pourhoseinzadeh et al., 2017 [7] stressed on that there is no doubt that positive health actions of health service providers are one of the main aims of universities of medical sciences; careful planning with the purpose of develop the quality of emergency medical personnel services is significant and helpful .

In Tehran [6] reported that perceived stress has a significant role in the development and continuance of asthma symptoms. In addition, self-efficacy and a tendency to externally aspect the locus of control are significantly linked with asthma control. Also, there were a positive significant relationships between self-efficacy and asthma control which perceived stress has a significant role in the development and maintenance of asthma symptom and self-efficacy.

As regard a relationship relation between total daily living activities scores and Bronchial Asthma patients and their socio-demographic characteristics, the present study revealed that there are a statistically significant relation between total daily living activities scores and Bronchial Asthma patients and their socio-demographic characteristics only in the items related to patient's residence. These findings goes in the same line with Zillmer et al.,2014 [18] In Brazil who found that daytime symptoms, such as cough, shortness of breath, wheezing, and tightness in the chest, were more common among women than among men. Women also more often reported that their asthma interfered with normal physical exertion, social activities, sleep, and life in general. Concerning the impact of asthma on quality of life, the proportion of subjects who reported that asthma caused them to feel that they had no control over their lives and affected the way that they felt about themselves was also greater among women than among men.

Additionally , taking into consideration the relationship between qualitative demographic variables and health locus of control, their results showed that there was a positive and major relationship between the health locus of control (internal and external) and gender , marital status, and training course group . Otherwise, men often enjoyed internal locus of control and women enjoyed external locus of control [7] .

5. Conclusion

Based on study findings we can conclude that most of patient's with bronchial Asthma adapt with their living activities and asthmatic control on their disease which reflect the proper management with Covid 19 pandemic. Also, there are a statistically significant relation between total daily living activities scores and Bronchial Asthma patients and their socio-demographic characteristics only in the items related to patient's residence. From the foregoing conclusion, Patient with Bronchial Asthma need for receive regular; periodic in-service coping program contains methods of adherence with their daily living activities , knowledge of their disease which indirectly added stressor on patient's life and indirectly affect their disease management and coping especially in the period of Corona virus Pandemic which added stressors of those patients . Further studies are needed to study the coping strategies that influence bronchial Asthma patient's locus of control, management and coping with their disease with a large geographical areas and sampling.

Compliance with ethical standards

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Disclosure of conflict of interest

There are no competing interests.

Statement of informed consent

Verbal Informed consent was obtained from all individual participants included in the study.

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