RESEARCH
O&G Forum 2024; 34-3s: 1607-1609

VIDEO EDUCATION FOR PARENT AMONG ASTHMATIC CHILDREN

Firas Fadhil Abbas[1*], Qusay Hasan Mansi[2]

[1]MBChB, FICMS, at Thi-Qar health department/ Mohammed Almousawi Pediatric Hospital, firasfadhil75@gmail.com
[2]Lecture, PhD, Southern Technical University, Technical Institute of AL-Nasiriya, Iraq, qusay.alzubaidi@stu.edu.iq

Abstract
Background: Asthma is one of the most serious public health problems affecting people of all ages throughout the world. The incidence of asthma continues to increase worldwide and consequently; asthma places a huge economic burden on healthcare resources. It is about bouts in terms of breathing from coughing and chest whistling due to bronchoconstriction. And bronchi occur by three factors, namely: Spasm of his trachea. Swelling of the mucous membrane of the bronchi. Increased secretion of mucus and its accumulation inside the bronchi. Asthma may appear in childhood or youth, and if it begins in childhood, it affects the male more often females, but at a later age it affects women more than men.
Aim to effect of video education on parents' knowledge among asthmatic children.
Method: Qusi-experimental design study. A purposive, non-probability sample of (20) parents. All these parents who have asthmatic child were selected based on the study criteria, and after obtaining a consent from them. The research conducted at bint Alhuda Teaching Hospital in Al Nasiriya city.
A questionnaire and video has been adopted to meet and achieve the objectives of the study. The questionnaire consists of two parts; part one demographic characteristics and part two consist of Parents' knowledge among Asthmatic Children. Take information from parent before video education and after listen to video education in emergency unite.
Result: The results revealed that the majority of study sample age within age group (25-35) accounted for (90.0%) of sample, on the other hand regarding to the residence the most of participant were lives at rural area (65.0%). There are statistically significance differences between pre and posttest for study group at $P < 0.05$
Conclusions: The developed educational video improved parent knowledge of asthmatic child for a facing communication barriers to quality asthma care.
Recommendation: The study should be generalized on a larger sample of parents of children with asthma to achieve better results.
Keywords: Video Education, Asthmatic Children, asthma.

Introduction

Asthma is chronic inflammatory airway disorder. Asthma is a long-term condition affecting children and adults. The air passages in the lungs become narrow due to inflammation and tightening of the muscles around the small airways. This causes asthma symptoms such as cough, wheeze, shortness of breath and chest tightness. These symptoms are intermittent and are often worse at night or during exercise. Other common triggers can make asthma symptoms worse. Triggers vary from person to person, but can include viral infections (colds), dust, smoke, fumes, changes in the weather, grass and tree pollen, animal fur and feathers, strong soaps and perfume (1).

Asthma is often under-diagnosed and under-treated, particularly in low- and middle-income countries. People with under-treated asthma can suffer sleep disturbance, tiredness during the day, and poor concentration. Asthma sufferers and their families may miss school and work, with financial impact on the family and wider community. If symptoms are severe, people with asthma may need to receive emergency health care and they may be admitted to hospital for treatment and monitoring. In the most severe cases, asthma can lead to death (2).

Materials and methods

Study Design: Qusi-experimental design study

Study Setting: The study conducted at bint Alhuda Teaching Hospital in Al-Nasiriya city.

Study Sample: A purposive, non-probability sample of (100) parents. All these parents who have asthmatic child were selected based on the study criteria, and after obtaining a consent from them.

3.4- Study Instrument

A questionnaire MCQ design and video has been adopted to meet and achieve the objectives of the study. The questionnaire consists of two parts; part one demographic characteristics and part two consist of Parents' knowledge among Asthmatic Children. Take information from parent before video education and after listen to video education in emergency unite. Validity is concerned with the extent to which an instrument corresponds. The content validity of instrument was established through a panel of (5) experts from different specialties.

Results:

Table (1) Results of Socio- demographic Variables of study Sample(N=100):

Variables	Class	Frq.	Percent.
Age	**25&UN**	50	50.0
	26-30	40	40.0
	31-35	10	10.0
	Total	**100**	**100.0**

Residence	**Urban**	35	35.0
	Rural	65	65.0
	Total	**100**	**100.0**
Level of Education	**Primary**	35	35.0
	Secondary	40	40.0
	College	25	25.0
	Total	**100**	**100.0**

The results revealed that the majority of study sample age within age group (25 and below) accounted for (50.0%) of sample, on the other hand regarding to the residence the most of participant were lives at rural area 65 (65.0%). and finally related to the level of education the most of participant were have secondary level of education 40 (40.0%).

Table (2) Comparison statistics between pre and post-test Video Education for Parents among Asthmatic Children

Questions	Pretest		Post test	
	True	False	True	False
Who is most at risk of developing asthma?	35	65	85	15
Asthma is more common in:	40	60	85	15
What should a parent do for her asthmatic child during the dusty season?	40	60	100	0
Asthma is a seasonal disease that increases most in the season	40	60	70	30
Is there a scientific method that prevents asthma 100%?	75	25	100	0
Can a person with asthma exercise?	50	50	90	10
Does asthma appear suddenly?	90	10	100	0
What is the difference between allergy and asthma?	65	35	95	5
Asthma is a chronic disease that affects?	65	35	90	10
It is one of the causes of asthma	70	30	70	30
The most important irritating factors for asthma attacks are?	70	30	80	20
The factors that affect asthma are:	75	25	75	25
What are the main symptoms of asthma?	60	40	60	40
Does being overweight lead to an increase in asthma symptoms?	30	70	65	35
What is the device used for asthma inhalers?	95	5	100	0
Are the percentages that are placed inside the nebulizer device for asthma patients the same?	45	55	75	25
It is difficult to use the nebulizer device with asthmatic children whose ages range from	90	10	95	5

This table show statistically distribution Comparison between pre and post-test Video Education for Parents among Asthmatic Children at bint Alhuda Teaching Hospital.

Table (3): Effectiveness of Video Education for Parents among Asthmatic Children

Period	Mean ±S.D.	*N*	T	P. Value	Sig
Pre-test	0.63±0.185	**100**	**6.420**	**.000**	**H.S**
Post –test	0.84±0.061	**100**			

x ∓ S.D.=Arithmetic Mean (x) and Std. Dev. (S.D.), F = Fisher test, d.f. = degree of freedom, P = probability value. , NS : Non Significant at P ≥ 0.05 , S : Significant at P < 0.05 t=t test , N=Number of sample,

Table (3) shows there is statistically significance differences between pre and posttest for study group at P < 0.05**,** which mean effectiveness of video education for parents among asthmatic children at bint Alhuda teaching hospital for study sample.

Table (4): Statistical Associations of the Study Group between the Demographic Variables of Parents and Effectiveness Video Education for Parents among Asthmatic Children:

No	Demographic Variables Parent's Knowledge	statistics				
		Mean±S.D.	F	d.f	P. value	Sig
1	**Age**	**1.65 .671**	**1.340**	**99**	**0.297**	**N.S**
2	**Educational Level**	**1.90 .788**	**12.867**	**99**	**0.000**	**H.S**
3	**Residency**	**1.65 .489**	**.683**	**99**	**0.575**	**N.S**

x ∓ S. D.=Arithmetic Mean (x) and Std. Dev. (S.D.), F = Fisher test, d.f. = degree of freedom, P = probability value, , NS : Non Significant at P ≥ 0.05 , S : Significant at P < 0.05.

This table show their no statistically significances differences between demographics variables (age and residency), while there is statistically significances differences between demographics variables (educational level) and Effectiveness video education for parents among asthmatic children at bint alhuda teaching hospital, when analyzed by ANOVA.

Discussion

The use of video in research is beneficial. It is relatively free from biases caused by language, culture, literacy, or interviewing technique, and may allow more valid and repeatable recognition of education (3).

It has been used to validate written questionnaires, as an epidemiology tool with older children, to measure parent knowledge, as part of an educational programme with asthmatics, and as "video diaries" showing clinician the life context for asthmatics managing their symptoms. To the best of our knowledge, it has not been used to assess parents' interpretation of children's respiratory symptoms. The recording of good quality videos proved agreement between clinicians (4). There has been growing interest in developing and validating patient-facing mobile digital tools for the self-management of

chronic conditions. Asthma-related mobile applications have been inconsistently linked to improvements in clinical outcomes and decreases in health care utilization. In our study, we evaluated the impact of asthma, a novel, interactive, guidelines-based smartphone application on an parent population. We demonstrated that asthma improves asthma knowledge. We observed that asthma decreased asthma-related emergency department visits, hospitalizations, and prednisone use. These findings improve upon the available literature on the management of asthma using patient-facing mobile applications (5).

As observed in Table 1, our subjects were largely representative of the demographic characteristics of the parent, with age (25 and under years) about half of the sample.

And 65% of residence at rural area, and the highest education degree of participants consisted mostly of secondary school. There were some differences with study of (6), however, between our subjects and the greater Bronx population.

Table (2,3) all 17 questionnaires demonstrated improved mean scores. Through the educational videos and personalized algorithms within the application, subjects improved their comprehension of the knowledge and management of asthma and subsequently parent able to manage their condition better. And significant differentiation between pre and posttest by mean± SD (0.84±0.061). This result confirms with study of (7) that said, investigated the impact of an in-person asthma educator, there are few reports that have linked the use of an asthma education smartphone application with sustained improved outcomes regarding asthma control and quality of life. One recent study reported improved scores and high user satisfaction following the use of a smartphone application in a cohort of subjects with uncontrolled asthma.

At table (4): our finding correlation with age, similar to (6), that found, no statistically significant association between improvements in any of the outcomes and age. Our results confirm that highly significant of educational level of parent and this similar to study (5) that suggest that educational programs can concurrently improve asthma knowledge and asthma control, and thereby reinforce the findings of previous studies and study of (7, 8). Also Several studies link poor asthma control with suboptimal inhaler technique.

Conclusions and recommendations

The developed educational video improved parent knowledge of asthmatic child for a facing communication barrier to quality asthma care. the results suggest that short, simple, culturally, and linguistically appropriate interventions can promote knowledge gain about asthma and improve inhaler use that can be sustained over the short term.

Higher education levels, fully controlled asthma for asthma attacks were associated with posttest class. video can be helpful to discover different profiles of parents of children with asthma and may assist in the development of targeted educational interventions.

These findings call into question mass asthma education campaigns and have important implications for the design of future asthma education programs. Video and print interventions can promote recall of health-related information. Additionally, reviewable materials, if they are utilized, may improve retention. Thus, that is why we must provide health education about asthma using audio and visual means.

References

1. Sharma, S., Tasnim, N., Agadi, K., Asfeen, U., & Kanda, J. (2022). Vulnerability for Respiratory Infections in Asthma Patients. A Systematic Review Cureus, 14(9).

2. Chou, E. Y., Pelz, B. J., Chiu, A. M., & Soung, P. J. (2022). All that Wheezes is not Asthma or Bronchiolitis Critical Care Clinics, 38(2), 213- 229.

3. Hunkenschroer, A. L., & Luetge, C. (2022) Ethics of AI-enabled Recruiting and selection: A review and research agenda. Journal of Business. Ethics, 178(4), 977-1007.

4. Reddel, H. K. Bacharier. L. B. Bateman, E. D., Brightling. C. E., Brusselle, G. G., Buhl, R. & Boulet, L. P. (2022) Global Initiative for Asthma Strategy 2021 executive summary and rationale for key changes American Journal of Respiratory and Critical Care Medicine, 205(1), 17-35.

5. Culmer, N., Smith, T., Stager, C., Wright, A., Burgess, K., Johns S., ... & Desch, M. (2020). Telemedical asthma education and health care outcomes for school-age children: a systematic review. The Journal of Allergy and Clinical Immunology: In Practice, 8(6), 1908-1918.

6. Hsia, B. C., Wu, S., Mowrey, W. B., & Jariwala, S. P. (2020). Evaluating the ASTHMAXcel mobile application regarding asthma knowledge and clinical outcomes. Respiratory care, 65(8), 1112-1119 Ll.

7. Poowuttikul P. & Seth, D. (2020) New concepts and Technological resources in patient education and asthma self-management Clinical Reviews in Allergy & Immunology, 59, 19-37.

8. Aziz, A. R., & Mansi, Q. H. (2017). Assessment Quality of Nursing Care Provided to Neonates with Respiratory Distress Syndrome at Intensive Care Unit in AL-Nasiriyah City Hospitals. kufa Journal for Nursing sciences, 7(2).