Effect of Bronchial Asthma Education Program on Asthma Control among Asthma Patients

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ABSTRACT

Asthma attacks all age gatherings however it regularly begins in childhood age itself. It is a sickness depicted by irregular attacks of shortness of breath and wheezing, which move in earnestness and repeat from individual to person. In an attacks, the coating of the entries swell making the aviation routes limited and decreasing the progression of air all through the lungs. In an individual, this may happen from hour to hour and everyday too. The incidence is 5% in adult population and 10% in children. Incidence of asthma has considerably increased over last few decades so the present study aims to assess the effectiveness of Bronchial Asthma Education Program on Asthma control among Asthma Patients. A quantitative approach with Pre-Experimental research design was adopted to conduct the study among 30 Bronchial Asthma patients who were selected by Non- probability convenience sampling technique. Semi-structured interview method was used to collect the demographic data and level of knowledge regarding asthma among asthma patients was assessed by structured questionnaire. The Bronchial Asthma education was given with flash card which includes the details which controls Asthma. The results of the study shows that among 30 samples in the experimental group the pretest results reveal, 25(83.34%) had inadequate knowledge, 4(13.33%) had moderately adequate knowledge and 1(3.33%) had good knowledge. Whereas, in the post test, 20(66.67%) had adequate knowledge and 10(33.33%) had moderately adequate knowledge regarding Bronchial Asthma among asthma patients. This reveals the level of knowledge regarding asthma is highly significant in the experimental group because the level of knowledge is improved after health education.

INTRODUCTION

Asthma attacks all age gatherings however it regularly begins in childhood age itself. It is a sickness depicted by irregular attacks of shortness of breath and wheezing, which move in earnestness and repeat from individual to person. In a person, this may occur from hour to hour and everyday as well (Aggarwal et al., 2006). This condition is a direct result of exacerbation of the air areas in the lungs and impacts the affectability of the nerve endings in the avionics courses so they become conveniently upset. In an ambush, the covering of the segments swell creation the flight courses tight and reducing the movement of air all through the
An international consensus report characterized asthma as a “typical incessant issue of the aviation routes that is complex and described by factor and recurring symptoms, wind stream impediment, bronchial hyper-responsiveness, and a basic inflammation” (Singh and Gupta, 2011). Airway narrowing is the last normal pathway prompting manifestations and physiological changes in asthma (Sin et al., 2005). Several elements add to the advancement of aviation route narrowing in asthma. These different variables caught may impact the danger of asthma. They are separated into those that cause the turn of events (have factors) of asthma and those that trigger (natural variables) asthma side effects, despite the fact that it is additionally accepted that some do both (Skaggs and Yates, 2016). This working definition and its acknowledgment of key highlights of asthma was gotten from the manner in which aviation route changes in asthma identify with the different components, for example, allergens, respiratory infections, and some word related exposures, are related with the advancement of aviation route irritation and acknowledgment of hereditary guideline of these procedures (Gajanana et al., 2015). According to the EPR, it from these descriptive approaches of asthma definition that a progressively extensive comprehension of asthma pathogenesis, the procedures associated with the improvement of tireless aviation route aggravation, and the huge ramifications that these immunological occasions have for the turn of events, finding, treatment, and conceivable avoidance of asthma has advanced (Kotwani and Chhabra, 2012).

The commonness of ‘ever asthma’ was accounted for in 2.4% in a population study on 73,605 people led all the while at four significant focuses in India with the utilization of a solitary definition and uniform system utilizing an approved poll. Of the few hazard factors which were seen as huge, introduction to ecological tobacco smoke during youth alone or both during adolescence and adulthood was significant in the advancement of and in expanding dismalness from asthma. There is likewise a worldwide worry on the adjustment in asthma the study of disease transmission and clinical range. There isn’t just an obvious increment when all is said in done commonness in a few geographic zones, yet in addition in the quantity of instances of troublesome, headstrong and deadly asthma (Marabini et al., 2002; Janson et al., 2009; Choi and Chung, 2011). Review of literature and clinical experience made the investigator to realize that asthma is one of the major health problems worldwide. With proper knowledge regarding asthma incidence the incidence of asthma can be reduced to some extent. This motivated the investigator to undertake a study on knowledge regarding bronchial asthma control among asthmatic patients.

MATERIALS AND METHODS

A quantitative approach with pre experimental design with one group pretest and post test design was used to conduct the study in the community area of Thiruvalur district 30 samples were selected by using non probability convenience sampling techniques. The criteria for sample selection are Bronchial asthma patients who were above 18 years, both male & female, who are willing participants in the study, who can understand Tamil and English & available during the study period. The patients with severe asthma, having habit of smoking, patients with chronic obstructive pulmonary disease were excluded from the study. The data collection period was done with prior permission from the head of the village and ethical clearance was obtained from the institution. The purpose of the study was explained to the samples and written informed consent was obtained from them. Semi-structured interview method was used to collect the demographic data and level of knowledge regarding asthma among asthma patients was assessed by structured questionnaire which consists of 14 questions the scoring interpretation of each question is “0” for wrong answer and “1” for correct answer. The Bronchial Asthma education was given with flash card which includes the details which controls Asthma. The post test was conducted after the education program. The data were analyzed by using descriptive statistics and inferential statistics.

RESULTS AND DISCUSSION

Section A

Sample characteristics

Among 30 samples most of the bronchial asthma patients were 12(40%) in the age group of 28 – 37 years, 16(53.3%) were female, 18(60%) were married, 8(26.7%) had primary, secondary and undergraduate level of education respectively, 13(43.3%) were daily wages, 16(53.3%) were Hindus, 17(56.6%) had a monthly income in the range of 15,000 – 30,000, 24(80%) belonged to joint family, 14(46.7%) were residing in rural area and 13(43.4%) had no personal habits.

Section B

Assessment of Level of Knowledge Regarding Bronchial Asthma control among Asthma Patients.
The present investigation reveals that in the pretest, 25(83.34%) had inadequate knowledge, 4(13.33%) had moderately adequate knowledge and 1(3.33%) had good knowledge. Whereas after the bronchial asthma education program the post test results depicts that, 20(66.67%) had adequate knowledge and 10(33.33%) had moderately adequate knowledge regarding bronchial asthma among asthma patients (Table 1).

The study is supported by Poureslami, Iraj et.,al(2012), led an examination on Effectiveness of educational interventions on asthma self-management in Punjabi and Chinese asthma patients. Utilizing a participatory methodology, we created and tried information and network instructive recordings (with comparable data, however utilized an alternate methodology, i.e., logical versus casual) and a pictorial leaflet. A sum of 92 doctor analyzed grown-up asthma patients (47 Chinese and 45 Punjabi) were relegated indiscriminately to three exploratory gatherings (watched one or the two recordings) and one correlation gathering (read pictorial handout) and took an interest in three in-person meetings and one phone meet inside a 9-month time frame. Patients got training on asthma self-administration by means of recordings and leaflet and results, including their insight into asthma triggers (ecological related and conduct related triggers) and side effects; inhaler use aptitudes and patient-detailed prescription adherence were estimated. Information on asthma indications, inhaler use, and comprehension of doctor’s guidelines improved fundamentally from pretest to 3 months post-intercession follow-up among all members (Poureslami et al., 2012).

### Table 1: Frequency and percentage distribution of level of knowledge regarding bronchial asthma control among asthma patients N= 30

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Inadequate (≤50%)</th>
<th>Moderately Adequate (51 – 75%)</th>
<th>Adequate (&gt;75%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>Pretest</td>
<td>25</td>
<td>83.34</td>
<td>4</td>
</tr>
<tr>
<td>Post Test</td>
<td>0</td>
<td>0</td>
<td>10</td>
</tr>
</tbody>
</table>

### Table 2: Comparison of pretest and post test knowledge scores regarding bronchial asthma control among asthma patients. N= 30

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>S.D</th>
<th>Paired ‘t’ test Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>5.80</td>
<td>2.02</td>
<td>t = 12.048 p = 0.0001</td>
</tr>
<tr>
<td>Post Test</td>
<td>10.87</td>
<td>1.28</td>
<td>$***$</td>
</tr>
</tbody>
</table>

***p<0.001, S – Significant

**Section C**

**Effectiveness of Bronchial Asthma Education Program on Asthma Control among Asthma Patients**

The study depicts that the pretest mean score of knowledge score was 5.80 with standard deviation 2.02 and the post test mean score of knowledge was 10.87 with standard deviation 1.28. The calculated paired ‘t’ test value of t = 12.048 was found to be statistically highly significant at p<0.001 level. This clearly infers there is significant improvement in the level of knowledge regarding bronchial asthma among asthma patients. Hence the hypotheses are proved (Table 2).

The present study findings are supported by Valizadeh., et.,al., (2014), directed an investigation on the Effects of Triggers’ Modifying on Adolescent Self-Efficacy with Asthma-Randomized Controlled Clinical Trial. Sixty young people, matured 12 to 18 years, determined to have asthma taken an interest in this randomized clinical preliminary. Members arbitrarily appointed to the benchmark group got standard consideration while those doled out to the exploratory gathering took an interest in a multi week, nurture drove, triggers altering instructive mediation in particular centers of lung in Tabriz, Iran. The self-adequacy scale created by the degree of self-viability in two gatherings before intercession was not factually noteworthy, while the post mediation measures were measurably critical. Intercession was successful in improving young people’s self-adequacy (Valizadeh et al., 2014).

**Section D**

**Association of level of knowledge regarding bronchial asthma control among asthma**
The study shows that the demographic variable age had shown statistically significant association with post test level of knowledge regarding bronchial asthma among asthma patients at p<0.05 level. Hence the hypotheses are proved.

CONCLUSIONS

This study indicates that by using health education by flashcards is the effective non pharmacological method to prevent asthma episodes. The clients gained the knowledge regarding the Bronchial asthma meaning, cause, risk factors, management, home remedies and they apply in their day to day practice and they got awareness on Bronchial asthma disease control measures.

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Authors Contribution

All the authors actively participated in the work of the study. All authors read and approved the final manuscript.

Conflicts of Interest

The authors declare that they have no conflict of interest for this study.

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