PREDICTING THE PRESENCE OF OCCUPATION INDUCED BRONCHIAL ASTHMA ON MANIFESTATION BASED QUESTIONNAIRE IN TIRUPUR CITY

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ABSTRACT

Background: Drug adherence to occupation induced bronchial asthma is one the key drivers long term controller medications to improve prevention and management among persistent asthmatic patients. Objectives: To evaluate occupation induced bronchial asthma on new manifestation questionnaire based clinical study conducted by tertiary care clinic in rural area in Tirupur. Methods: This study was to assess medication adherence by self-report method to understand various determinants of medication non-adherence, and to enhance adherence using the strategies of counseling, education, and interviewing the patient. Results: A total of 57 of participants answered all the questionnaire. 64.91% of the patients was male and 35.08% were female. 12.28% of the participants were vegetarian and 88.71% were non-vegetarian. 47.36% of participants were having the habit of smoking/alcoholic or tobacco consumption and 52.63% were not having. 49.12% of participants were predicted the presence of asthma. Conclusion: A significant difference was observed between the mean manifestation based asthma screening questionnaire scores of asthmatic participants. The most commonly used measures of asthma in epidemiological and clinical studies are symptoms data, specifically cough, wheeze, shortness of breath, and chest tightness. The manifestation based asthma screening questionnaire addresses the above 4 symptoms with specific triggers, although these triggers have yet to be validated.

INTRODUCTION

Bronchial asthma is a major public health problem affecting a large number of individuals of all ages. Globally, 100 to 150 million peoples are suffering from work related asthma (Gajanan S et al 2011). Estimates indicate that, India has 20 to 28 million asthmatics and the prevalence amongst children (5 to 11 ears) is in between 10% to 15%. Being a chronic medical condition, management of bronchial asthma requires continuous medical care. Modern management of asthma requires prolonged medications (Ajay R Fugate et al 2015). Medications for bronchial asthma reverse and prevent symptoms and airflow limitations. A key issue in proper prevention and management of bronchial asthma is adherence to treatment (Sultan K et al 2015, Chetna A. Shamkuwar et al 2016). It affects lungs, characterized by narrowing of the airways resulting in recurring episodes or attacks of cough, wheezing, shortness of breath and chest tightness. The exact cause or causes of asthma are not yet known; however, there is no question that genetic, industrial asthmagens and environmental factors can exacerbate symptoms and lead to an asthma episode or attack. Factors that can trigger an asthma attack include allergies (such as pet dander, dust mites, mold, pollen, and food allergies), secondhand tobacco smoke, exercise, strong odors and cold weather (Rand Cs, Wise Ra et al 2012, George J, Kong Dc et al 2009, Mahendra Kumar, Jimmy Jose, et al 2011, Tatiana Makhinova, Ms; Jamie et al 2015) The term drug adherence means, “sticking to a plan” for perceived benefit. This concept is applied for the patients, who have adopted and integrated a plan given by the physician. Non-adherence to asthma treatment leads to increased emergency care and mortality. The effect of medications depends on the efficacy and the patient adherence to the intended regimen. Patient adherence with medication regimens is essential for attaining maximal therapeutic benefits (Rajinder Singh Bedi et al 2007, Gajanan, JyothiHattiholi et al 2012, Animesh Jain1, H. VinodBhath et al 2010). Asthma education program (AEP), a common concept in western medical literature, is rarely discussed or practiced in our country. The western countries have a well-developed health care system. Because of excellent medical facilities, socio-economic advantages, nearly 100% literacy and other factors, asthma management in the west is intimately associated with patient education. However, despite all these advantages, even the developed countries have not been able to achieve uniform success in the implementation of their

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MATERIALS AND METHODS

This study was to assess medication adherence by self-report method to understand various determinants of medication non-adherence, and to enhance adherence using the strategies of counseling, education, and interviewing the patient. The prospective study was conducted for period of three months; assessed medication and inhaler adherence by administering morisky self-reported questionnaires and inhaler technique were assessed by the standard checklist (R K Kandane-Rathnayake et al 2016).

Study Type

A prospective survey on predicting the presence of occupation induced bronchial asthma by manifestation based on questionnaire in rural area.

Study Location

This survey was conducted at various tertiary care hospitals in Tirupur.

Duration of survey

This study was carried out minimum 03 months of duration.

Study Source

Informed consent form,

Predicting The Presence of occupation induced Bronchial Asthma on Manifestation Based Questionnaire in Rural Area. This survey will be carried out as per recommended asthma education activity in such a scenario. Poorly controlled asthma is associated with significant morbidity and socio-economic problems like absenteeism from school or work, loss of productivity and wages and a poor quality of life. Poorly controlled and undiagnosed asthma can also be potentially fatal. Therefore, there is urgent need for an Asthma Education Programme (AEP) for better asthma management (GajananGaude, JyothiHattiholi et al 2014).

Inclusion Criteria

- Age criteria considered for sample is 40+.
- Both male and female are considered for sample.
- People who are already worked in garment factory

Exclusion Criteria

- Pregnant or lactating women
- peoples with respiratory diseases like tuberculosis and pneumonia
- peoples with cardio vascular disease

RESULTS AND DISCUSSION

During this survey in rural area, all the required information (manifestation based questionnaire) will be carried out 57 participants yielding response rate of 100%. The majority of participants 70.17% were in age group of 40-70 years. The ratio of male and female was 2:1. The demographical details enrolled participants were as in table-1. Percentage of participant’s responded manifestation based questionnaire regarding asthma where as in (Table -2). The scoring system of predicting asthma questionnaire, <10 served as control. >10 predicting asthma symptoms in the participants.

### Table 1 Demographic Details of Participants

| Age in years | Number of participants | Percentage |
|--------------|------------------------|------------|
| 30-50        | 40                     | 70.17%     |
| 50-60        | 17                     | 29.82%     |
| Sex          |                        |            |
| Male         | 37                     | 64.91%     |
| Female       | 20                     | 35.08%     |
| Veg/non-veg  |                        |            |
| Veg          | 7                      | 12.28%     |
| Non-veg      | 50                     | 88.71%     |
| Smoking/Alcoholic/Tobacco consumption | | |
| Users        | 27                     | 47.36%     |
| Non-users    | 30                     | 52.63%     |
| Control/presence of Asthma Predicted | | |
| >10 (Presence of Asthma) | 28 | 49.12% |
| <10 (Control) | 29 | 50.87% |

Assessment of knowledge and the analysis of knowledge result was assessed by the percentage of participants answered each item is show in (Table 1). A total of 57 of participants answered all the questionare. 64.91% of the participants were male and 35.08% were female. 12.28% of the participants were vegetarian and 88.71% were non-vegetarian. 47.36% of participants were having the habit of smoking/ alcoholic or tobacco consumption and 52.63% were not having. 49.12% of participants were predicted the presence of asthma and 50.87% were in control. These data shows that the manifestation based asthma screening is a simple and effective questionnaire to predict which individuals are more likely to have undiagnosed asthma. It is reproducible whether it is self-administered (George J, Kong De et al 2009, Mahendra Kumar Bj, Jose et al 2011).
significant difference was observed between the mean manifestation based asthma screening questionnaire scores of asthmatic participants (Tatiana Makhinova, Ms; Jamie C et al 2015, Gajanan, JyothiHattiholi et al 2012).

Table 2 Evaluation of occupation induced Respiratory Challenges in Retirement Home Patients

| Questionnaire                        | Participant Responded | “YES” | “NO” | P value |
|--------------------------------------|-----------------------|-------|------|---------|
|                                      | (n=57)                |       |      |         |
| More cough than average              | 32                    | 25    | 0.01*|
| Cough from chest                     | 39                    | 18    | 0.02*|
| Lying down to sleep                  | 32                    | 25    | 0.01*|
| Chest tightness                      | 27                    | 30    | 0.007*|
| Wheeze                               | 17                    | 40    | 0.003*|
| Shortness of breath                  | 26                    | 31    | 0.006*|
| Exercise or physical activity        | 35                    | 22    | 0.01*|
| Chest tightness                      | 18                    | 39    | 0.003*|
| Wheeze                               | 09                    | 48    | 0.002*|
| Shortness of breath                  | 40                    | 17    | 0.02*|
| Laughing or crying                   | 28                    | 29    | 0.008*|
| Chest tightness                      | 24                    | 33    | 0.005*|
| Wheeze                               | 14                    | 43    | 0.003*|
| Shortness of breath                  | 32                    | 25    | 0.01*|
| Talking on the phone                 | 26                    | 31    | 0.006*|
| Cough                                | 10                    | 47    | 0.002*|
| Chest tightness                      | 10                    | 47    | 0.002*|
| Shortness of breath                  | 25                    | 32    | 0.006*|

The most commonly used measures of asthma in epidemiologic and clinical studies are symptoms data, specifically cough, wheeze, shortness of breath, and chest tightness (Michael C. Sokol, Md et al 2005). The manifestation based asthma screening questionnaire addresses the above 4 symptoms with specific triggers, although these triggers have yet to be validated. The manifestation based asthma screening questionnaire symptoms score was weighted more on cough than the other symptoms, because cough seems to be an earlier and more recognizable symptom in newly diagnosed asthma (Gajanan Gaude et al 2014). Dyspnea or chest tightness is more likely to be caused by cardiopulmonary conditions: however, it is considered less reliable because of the greater dependence on participates perception. Manifestation based questionnaire also differentiated between participate with cough originating from the chest and those with “ticklish” cough, posed by upper respiratory conditions such as upper airway disease or gastro esophageal reflux disease(Victor AniediUmoh et al 2012). There is increasing demand for asthma to be diagnosed as early as possible. Our studies suggest that treatment of asthma should be initiated quickly, before any permanent lungs developed abnormality functions (B Shin, SL Cole et al 2010). In a busy clinical practice, a simple scoring system that reliably identifies asthmatic patients needing further review is highly desirable. The asthma screening questionnaire is an efficient screening tool for suspected undiagnosed asthma patients in that it is simple, inexpensive, and quick (Williams Lk, Joseph Cl et al 2007). In populations with limited knowledge of asthma symptoms or low literacy, there may be even greater advantages in using the asthma screening questionnaire (R.Prasad, S.K. Verma et al 2007).

SUMMARY AND CONCLUSION

In conclusion, this survey shows that the new manifestation based questionnaire is a simple and inexpensive approach to predicting the asthma which individuals are most likely to be diagnosed with asthma and for efficient pre-interview of suspected to the retired home in participants. The present study established that the participant specific knowledge on predicting asthma is low therefore, predicting the asthma education strategies are recommended depending on the educational level of predicting the asthmatics individuals, it was also towards their disease. However, substantial numbers of people with predicting the asthma did not have the necessary attitude to contribute effectively to their disease state management. This study also demonstrated that the predicting the asthmatics participants had poor adherence to medications due to different factors may modulate adherence to predicting the asthmatic treatment.

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