INTRODUCTION
The deadly disease under the head of Non communicable disease, a very cruel and harsh disease, also called suffocating disease. During attack, if left untreated, it gives one of the worst and most painful death known to mankind. Patients and even medical professionals have poor understanding of this deadly disease as a result, millions die, globally every year.
Hence, patient education should focus not only providing information but also to dispel their myths. As soon as the asthma is suspected or diagnosed, patient usually express that it was just a chest cold and it will go off as the age increases, their fear is with regard to the inhaler as it weakens the heart and becomes addict. So, Nurses should help the patient to be receptive to our information to improve their knowledge and compliance to the treatment.
The common myths among the patients with bronchial asthma and its realities are given below:

<table>
<thead>
<tr>
<th>MYTHS</th>
<th>REALITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asthma-It's all in one's mind</td>
<td>Asthma is a physiological disease. Strong emotions or anxiety can trigger asthma attack.</td>
</tr>
<tr>
<td>Asthma is curable</td>
<td>Can be controlled/managed with proper treatment.</td>
</tr>
<tr>
<td>Asthmatic Child will outgrow disease</td>
<td>Not necessarily. Some people stop having asthma attacks as they grow older. Others become adapt at avoiding the things that trigger their asthma.</td>
</tr>
<tr>
<td>Asthmatic cannot exercise/indulge in outdoor activity</td>
<td>With due precautions one can exercise or play like any other healthy person by regular medication, restrict outdoor activity during winters or places could have some allergic trigger.</td>
</tr>
<tr>
<td>Asthma limits the activities of daily living</td>
<td>Asthma patients can live a full and active life with proper treatment and care to avoid the triggers.</td>
</tr>
<tr>
<td>Alternative mode of treatments provide better control</td>
<td>Certain Indian Yoga postures/aerobic exercises help in controlling asthma, to some extent but that does not mean that one should stop treatment at all, asthma can sometime bounce back with severe life threatening conditions.</td>
</tr>
<tr>
<td>Regular use of inhalers is addictive</td>
<td>Inhalers are better than oral medication - Cost effective. Drug delivery directly at the place it is needed. Doses required are sometimes 40% less then oral. Few/No side effects.</td>
</tr>
<tr>
<td>Asthma worsens with pain medications</td>
<td>NSAIDs are the serious trigger need to avoid it. Acetaminophen is often safe to use.</td>
</tr>
</tbody>
</table>
There are few factors which causes the patient not to adhere to the treatment:

**REASONS FOR NON-ADHERENCE**

a. Factors related to disease process
   - Diagnosis
   - Expectation of cure rather than control
   - Beliefs or perceptions

b. Treatment related factors
   - Need for preventer or controller drugs
   - Akward regimens eg., multiple drugs / frequent dosing
   - Use of inhalers or spacers
   - Side effects
   - Cost of the treatment

**PREVENTIVE MEASURES**

**Primary prevention**
1. Avoid early life exposure to pets.
2. Encourage breastfeeding to avoid allergic march.

**Secondary prevention**
3. Avoidance of first, second, third hand tobacco smoke in the environment
4. Appropriate environmental control.

**Tertiary prevention**
5. Identify the allergens.
6. Education program to eliminate or reduce exposure to allergen.

**ELEVEN COMMANDMENTS IN THE PATIENT EDUCATION**

Discuss with the patient regarding asthma:
1. A chronic reversible airway limitation condition with episodic symptoms.
2. Drugs are used to ‘control’ but not ‘cure’.
3. Myths and misconceptions on inhaled therapy.
4. Treatment regimen and address concerns regarding usage of steroids.
5. Use and maintenance of the inhaler device.
6. Approximate time taken to note improvement.
7. Dealing with triggers/precipitants.
8. Maintaining symptom diary and carry it at each visit.
9. Management of acute exacerbations at home prior to contacting the physician
10. Importance of follow up visit 2-4 weeks after institution of preventer regimen.
11. Identify any lacunae in understanding and reinforce the above ten commandments in subsequent visit.

**CONCLUSION**

Asthma is a chronic inflammatory disease that leads to extra-ordinary and easily irritated airways. Hence, patient education should be made clear and help them to understand the disease process, that like a tree how the branches become smaller than the trunk. Similarly, as the air moves through the lungs, the airways become smaller. During an asthma attack, the airways swell and the airways shrinks as a result less air moves in and out of the lungs and makes the patient to suffocate and eventually it may lead to fatal also.

**REFERENCES:**


*Lecturer, Faculty of Nursing, Sri Ramachandra University.*
DETERMINE THE LEVEL OF KNOWLEDGE AND PRACTICE AMONG ASTHMATIC PATIENTS ATTENDING CHEST OPD AT SELECTED HOSPITALS, CHENNAI

Ms. M. Malarvizhi
Lecturer,
Sri Ramachandra University, Porur,
Chennai, Tamilnadu, India.

Dr. B. Hariprasad
Professor,
Department of Chest and TB,
Sri Ramachandra University, Porur,
Chennai, Tamilnadu, India.

Ms. M. Bhavani
Research scholar,
Department of Human Genetics,
Sri Ramachandra University, Porur,
Chennai, Tamilnadu, India.

Abstract- Bronchial Asthma is a thwarting respiratory sickness. Asthma is a chronic disease that affects the airways. Deterioration of the Lung function with productive cough will have poor treatment control. Most of the people are still visiting the physicians twice monthly and on maintenance drugs only. Most asthma deaths are preventable in order to avoid unusual deaths. Hence a study was conducted to determine the level of knowledge and practice among asthmatic patients. The objectives of the study were to determine the level of knowledge and practice among asthmatic patients. A Qualitative study design was adopted and the study was conducted in Chest and TB OPD, Sri Ramachandra Hospital, Chennai, Tamilnadu. 40 asthmatic patients were selected for the study by using convenient sampling technique. The result suggests that there is an inadequate level of knowledge and the poor level of practice among asthmatic patients. There is a significant association between the level of knowledge and practice with the selected demographic variables among the asthmatic patient. Hence the Nurses play an vital role in building their knowledge and understanding the importance of prevention of complications of asthma. This can be facilitated by motivating the nurses to provide outpatient based education programme to improve their health.

Keywords: Knowledge, Practice, Bronchial asthma

I. INTRODUCTION

The term Bronchial asthma refers to an intermittent, reversible, obstructive airway disease. It is one of the most common disease with 4 to 5 % are being affected. It is perhaps the treatable condition that is mounting in terms of prevalence, severity and mortality.

There has been a dramatic increase in the amount of research related to asthma. Recently there have been important advances in the understanding of some of the basic mechanisms involved in the pathophysiology of asthma and this has led to the appropriate use of existing treatments and in the future will lead to the development of new therapies.

Education programme on bronchial asthma and its self management helps to reduce asthma severity. Thus the researcher felt that assessing the knowledge and practice among patients with bronchial asthma may help them to overcome the physical and psychological issues and will have better quality of life.

Scherer YK (2001) examined the relationship between knowledge, attitudes, and self-efficacy and compliance with prescribed medical regimen, number of emergency department (ED) visits, and hospitalizations among 29 adults with asthma by survey design. Higher their knowledge and self-efficacy scores, optimistic towards their illness. In addition, higher self-efficacy scores correlated with lower numbers of hospitalizations.

Hani Lababidi (2014) , conducted a study to characterize the current practice of asthma among general practitioners (GPs) in Lebanon. The study findings reveal that totally, 302 completed the questionnaire achieving a response rate of 91.5%. Chest radiography was the most commonly used diagnostic test (98%), while stain for eosinophilia was the less commonly used (7.9%). For clinical monitoring, cough and wheezing (98.7%) were mostly assessed. Short acting inhaled β2-agonists were often the most prescribed (94.3%) followed by inhaled corticosteroids (87.4%) then by long acting β-agonist (LABA) and theophylline (27.5% and 20.9%, respectively). Moreover, 10% of GPs provided formal asthma education program, 72.2% attended professional education and 65% adopted guidelines. Therefore, it is recommended to improve monitoring parameters, implement the asthma guidelines nationally and improve patient education.

Thus the researcher felt that assessing the knowledge and practice among patients with bronchial asthma is essential to improve their well being and prevent from complications.

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1.1 Objectives
- Assess the level of knowledge among patients with bronchial asthma
- Assess the level of practice among patients with bronchial asthma
- Associate the selected demographic variables with knowledge and practice among patients with bronchial asthma

1.2 Related Studies
- Knowledge about bronchial asthma
- Practice about bronchial asthma

II. LITERATURE REVIEW

2.1 Conceptual framework
The conceptual framework for this study was derived from Nightingale’s environment model. She identified good ventilation, air, bedding, cleanliness, nutrition and health as major areas of the environment. Based on this theory, the core and the central aspect of this framework is the patient. The Nurse is the person who provides care to the patient maintaining a balance between the environment and the various aspects of the life situation, e.g., ventilation, nutrition.

The Nurse focuses that the patients has to follow preventive measures when coming in contact with the polluted surroundings. She gives more importance to nutrition aspect by providing education about the diets to be avoided and taken by the patients. The clean environment prevents the chances of being affected with bronchial asthma. She stimulates the patients to keep the bed away from the contact with dust. Thus the Nurse coordinates that keeping in a balance with all these precautionary measures of life maintains person to be in good health.

III. METHODOLOGY
The research design is qualitative design. The settings of the study are Chest and TB OPD of Sri Ramachandra Hospital, Chennai. Population of the study included is patients with mild, moderate, severe persistent asthma. The samples selected for the study were patients attending Chest OPD. Inclusion criteria included patients who belong to the age of 20 to 60 years, who could understand Tamil or English and willing to participate. Exclusion criteria were those who were not willing to participate, or suffering from any chronic illness or disability. The sample size was 40 and the sampling technique used was convenience sampling technique.

3.1 Description of Tool
SECTION A: Demographic variables of the patients with bronchial asthma consist of age, education, locality, occupation, income, marital status, type of family, number of children, family history of asthma etc.

SECTION B: Semi structured questionnaire prepared by the investigator consisting of 30 in knowledge and 30 questions related to the practice. The tool was validated by the experts of Department of Medical surgical Nursing. The tool has got the following categories the questions related to the myths of asthma, definition, causes, treatment, preventive and control measures and likewise the practice questions too.

Each knowledge and practice statement has got score for the right answer has 1 and 0 for wrong answer. The scoring has been interpreted as the score of <50 % is inadequate knowledge and poor practice, 50-75 % as moderately adequate and good practice and >75 % as adequate knowledge and excellent practice.

3.2 Data collection procedure
The study was conducted for a period of 4 weeks. Permission to conduct the study was obtained through proper channel. Patients with bronchial asthma who met the inclusion criteria and those with the history of bronchial asthma for more than 5 years were selected for this study. Using the tool, the data were collected from the patient to find out their knowledge and practice regarding bronchial asthma.

IV. RESULTS
The major findings of the study are depicted below in tables and graphs.

Table 1: Frequency and percentage distribution of the demographic variables among patients with bronchial asthma.

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>N=40</th>
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<tbody>
<tr>
<td></td>
<td>No.</td>
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<tr>
<td><strong>Age (in yrs)</strong></td>
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<td>a. 21-30</td>
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<td>b. 31-40</td>
<td>12</td>
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<td>c. 41-50</td>
<td>15</td>
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<tr>
<td>Gender</td>
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<td>a. Male</td>
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<tr>
<td>b. Female</td>
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<tr>
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<th>a. No formal education</th>
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<th>c. High school</th>
<th>d. Higher secondary</th>
<th>e. Degree</th>
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<th>Occupation</th>
<th>a. Coolie</th>
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<th>c. Skilled</th>
<th>d. Professional</th>
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<tr>
<th>Income (in Rs.) per month</th>
<th>a. ≤ 5000</th>
<th>b. 5001-10,000</th>
<th>c. 10,001-15,000</th>
<th>d. 15,001-20,000</th>
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<th>a. Rural</th>
<th>b. Semi-urban</th>
<th>c. Urban</th>
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<td>10</td>
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<tr>
<th>Type of family</th>
<th>a. Joint</th>
<th>b. Nuclear</th>
<th>c. Extended</th>
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<td>12</td>
<td>15</td>
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<tr>
<th>Smoking habit</th>
<th>a. Non smoker</th>
<th>b. Cigarette smoker</th>
<th>c. Bidi smoker</th>
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<td>18</td>
<td>07</td>
<td>15</td>
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<table>
<thead>
<tr>
<th>Family history of asthma</th>
<th>a. First degree relative</th>
<th>b. No First degree relative</th>
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<td>6</td>
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</tbody>
</table>

Table-1 depicts the frequency and percentage distribution of the demographic variables of patients with bronchial asthma. Among which 15 (38%) of them belongs to the age group of 41-50 years and 23 (57%) of them are male patients, and majority of 12 (30%) had no formal education, 12 (30%) are skilled labors with the income of Rs.5001 to 10,000 are 15 (38%...


1.8 (45%) are living in the rural area, 15 (37%) has habit of beedi smoker occasionally, 28 (70%) had family history of first degree relative with bronchial asthma, 16 (40%) has comorbid illness of diabetes mellitus.

Table 2: Mean and standard deviation of the respondents (N= 40)

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>MEAN</th>
<th>STANDARD DEVIATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>KNOWLEDGE</td>
<td>60.10</td>
<td>18.84</td>
</tr>
<tr>
<td>PRACTICE</td>
<td>66.46</td>
<td>19.01</td>
</tr>
</tbody>
</table>

The mean and standard deviation of the knowledge variable is 60.10 and 18.84; practice is 66.46 and 19.01 respectively.

Similarly, 34 (85%) of them had poor levels of practice; 4(10%) and 2(5%) had adequate and good levels of practice regarding bronchial asthma. The descriptive statistics reveals that 32 (80%) had inadequate knowledge and 4 (10%) had moderately adequate and 4 (10%) only had adequate level of knowledge regarding bronchial asthma.

There is an significant association between the age, residence, sex, occupation and co-morbid illness with the level of knowledge and practice of bronchial asthma.

VI. CONCLUSION

The patients with bronchial asthma will have impairment in their physical, psychological and social dimensions. The findings of the present study suggest that even though the attending physician provides education to them during the consultation that is not enough for them to alleviate their myths. Hence separate education programme on the disease process is essential in order to alleviate their symptoms and avoid complications. The findings of the present study suggest that the nurse led education programme is essential key in the asthma management plan and to improve their quality of life.

References


A study to determine the breath holding time, Forced Vital Capacity (FVC), and Peak Expiratory Flow Rate (PEFR) among patients with Bronchial Asthma at selected hospital, Chennai

M.Malarvizhi¹, B.Hariprasad², M.Bhavani³ and Prasannababy¹
¹Sri Ramachandra University, Porur, Chennai, India.
²Department of Chest and TB, Porur, Chennai, India.
³Department of Human Genetics, SRU, Porur, Chennai, India.

ABSTRACT
Asthma is one of the major health problem in the developed countries, 15 million of the affected asthmatics. Hence a study was conducted to determine the breath holding time, forced vital capacity (FVC), and peak expiratory flow rate (PEFR) among patients with bronchial asthma. A Qualitative study design was adopted and the study was conducted in Chest OPD, Sri Ramachandra Hospital. The result suggest that Breath holding time may be thought of as being relatively constant inspite of the large standard deviation. Hence the Nurses play an vital role in imparting the knowledge of complementary and alternative therapy (Yoga etc.,) to them.

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Keywords
Breath Holding Time,
Forced Vital Capacity,
Bronchial asthma.

Introduction
Respiration involves diffusion, perfusion and ventilation which nutrifies the cells. The human body’s life sustaining gas oxygen fuel our lungs and diffuse it into the blood stream and without the proper oxygen and carbondioxide exchange it leaves the body to suffocate.

Asthma is a reversible airway diseases in which the lung function declines with the result of excessive mucus production which is an indicator for poor control of the disease. To test their breath holding time, it’s a simple procedure, and rapid helps to predict their severity of asthma.

To stress the importance of autonomic control of breathing, there is a story of German legend. Ondine was a water nymph who had an unfaithful mortal lover. The king of the water nymphs punished the lover by casting a curse upon him that took away his autonomic functions. In this state, he could stay alive only by staying awake and remembering to breath. He eventually fell asleep from sheer exhaustion, and his respiration stopped.

Similarly breathing can be voluntarily stopped, but a person cannot suffocate himself by doing so. Subconscious mechanisms will submit to voluntary levels until oxygen levels drop or CO₂ levels rise substantially, at which point the body will reflexively take over and force him to breathe to expel CO₂ and to inhale O₂. Breathing can be voluntarily stopped for a variable period by different individuals depending upon the lung physiology, and the development of the lung structure. The factors like age and sex have no influence on the breath holding time.

The subject holds his breath as long as he can. Normal breath holding time is 45 – 55 seconds. The breaking point at which breathing can no longer be voluntarily inhibited.

Padilla et al (1989) studied 13 patients with acute attacks of asthma to test the hypothesis that magnitude of dyspnea at rest correlate well with spirometry and with breath holding time. Nevarez- Najera et al (2000) in their studies observed that FEV₁ can be reliably estimated using breath holding time.

Hence, this study was undertaken to determine the breath holding time, forced vital capacity (FVC), and peak expiratory flow rate (PEFR) among patients with bronchial asthma and to correlate pulmonary function determined by breath holding time with that determined by spirometry.

Objectives
• Determine the breath holding time, forced vital capacity (FVC), and peak expiratory flow rate (PEFR) among patients with bronchial asthma.
• Assess the gender variations in pulmonary function determined by breath holding time and pulmonary function tests.
• Correlate pulmonary function determined by breath holding time with that determined by spirometry.

Related Review Literature
Studies related to
• Knowledge about bronchial asthma
• Breath holding time among asthmatic patients

Methodology
The research design for the study is qualitative design. The study settings is Chest and TB OPD of Sri Ramachandra Hospital, Chennai. Population of the study included are patients with mild, moderate, severe persistent asthma. The samples selected for the study were patients attending Chest OPD. Inclusion criteria included patients who belongs to the age of 20 to 60 years, who could understand Tamil or English and willing to participate. Exclusion criteria were those who were not willing to participate, or suffering from any chronic illness or disability. The sample size was 40 and the sampling technique used was convenience sampling technique.

Description of Tool
Section A : Demographic variables of the patients with bronchial asthma consist of age, education, locality, occupation, income, marital status, type of family, number of children, family history of asthma etc.
Section B: Clinical variables such as Height, weight, BMI, Vital signs.

Section C: Pulmonary variables such as breath holding time by 40 mm Endurance test by using mercury sphygmomanometer, forced vital capacity (FVC) by means of spirometry and peak expiratory flow rate (PEFR) by mini Wright peak flow meter.

Data collection procedure
The study was conducted for a period of 4 weeks. Permission from Institutional Ethics Committee was obtained to conduct the study. Patients with bronchial asthma who met the inclusion criteria and those with the history of bronchial asthma for the period of at least one to 5 years were selected for this study. Using the tool, the data were collected from the patient to determine the breath holding time, forced vital capacity (FVC), and peak expiratory flow rate (PEFR).

Results
The major findings of the study are depicted below in tables and graphs.

Table 1: Frequency and percentage distribution of the demographic variables among patients with bronchial asthma

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<tr>
<th>Demographic Variables</th>
<th>N=40</th>
<th>No.</th>
<th>%</th>
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<tbody>
<tr>
<td>Age (in yrs)</td>
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<td>a. 21-30</td>
<td>4</td>
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<tr>
<td>b. 31-40</td>
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<td>c. 41-50</td>
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<td>d. 51-60</td>
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<td>b. Female</td>
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<td>d. Widow</td>
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<td>Occupation</td>
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<td>d. Professional</td>
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<tr>
<td>Income (in Rs.) per month</td>
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<td>a. ≤ 5000</td>
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<td></td>
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<tr>
<td>c. Extended</td>
<td>15</td>
<td>37</td>
<td></td>
</tr>
<tr>
<td>Smoking habit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Non smoker</td>
<td>18</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>b. Cigarette smoker</td>
<td>07</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>c. Bidie smoker</td>
<td>15</td>
<td>37</td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Body Mass Index among patients with bronchial asthma (N=40)

<table>
<thead>
<tr>
<th>BMI</th>
<th>Male (n=23)</th>
<th>Female (N=17)</th>
<th>t-test</th>
<th>Mean</th>
<th>SD</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>21.67</td>
<td>2.46</td>
<td>18.96</td>
<td>1.89</td>
<td>Significant (P=0.0005)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3: Breath Holding Time among patients with bronchial asthma (N=40)

<table>
<thead>
<tr>
<th>BHT (Sec)</th>
<th>Male (n=23)</th>
<th>Female (N=17)</th>
<th>t-test</th>
<th>Mean</th>
<th>SD</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>30.25</td>
<td>5.25</td>
<td>26.62</td>
<td>4.23</td>
<td>Significant (P=0.0245)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4. 40 mm Hg Endurance test among patients with bronchial asthma (N=40)

<table>
<thead>
<tr>
<th>40 mm Hg Endurance test (Sec)</th>
<th>Male (n=23)</th>
<th>Female (N=17)</th>
<th>t-test</th>
<th>Mean</th>
<th>SD</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>36.25</td>
<td>3.25</td>
<td>28.52</td>
<td>2.23</td>
<td>Significant (P&lt;0.0001)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5. Forced Vital Capacity (FVC) and Peak Expiratory Flow Rate (PEFR) among patients with bronchial asthma (N=40)

<table>
<thead>
<tr>
<th>FVC</th>
<th>Male (n=23)</th>
<th>Female (N=17)</th>
<th>t-test</th>
<th>Mean</th>
<th>SD</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.22</td>
<td>0.25</td>
<td>2.81</td>
<td>0.51</td>
<td>Significant (P&lt;0.0001)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PEFR</th>
<th>Male (n=23)</th>
<th>Female (N=17)</th>
<th>t-test</th>
<th>Mean</th>
<th>SD</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.26</td>
<td>0.96</td>
<td>5.09</td>
<td>1.08</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6. Correlation between BHT and PEFR among patients with bronchial asthma

<table>
<thead>
<tr>
<th>BHT</th>
<th>Male (n=23)</th>
<th>Female (N=17)</th>
<th>‘r’</th>
<th>Mean</th>
<th>SD</th>
<th>Mean</th>
<th>SD</th>
<th>‘r’</th>
</tr>
</thead>
<tbody>
<tr>
<td>30.25</td>
<td>5.25</td>
<td>26.62</td>
<td>4.23</td>
<td>0.87</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 6 depicts the positive correlation between BHT and PEFR among patients with bronchial asthma.

Discussion

With regard to the gender variations in pulmonary function, it was found to be significantly higher in males than in females at p <0.0001 level. The positive correlation was determined between the breath holding time and pulmonary function measures. There was a significant association found between the age, sex, smoking habit, anthropometric variables at the p<0.05 level.

Based on the results, Breath holding time may be thought of as being relatively constant inspite of the large standard deviation. The breath holding time is relatively constant because forced vital capacity may be correlated with body mass index. The relative similar breath holding time is possible because lower sensitivity to hypercapnia and hypoxia or weak signals from the inspiratory effort at breaking point that inhibits voluntary breath holding. Padcilla et al and Navarez-Najera et al have shown the correlation of breath holding time with pulmonary function test.

The clinical variable such as BMI is significantly higher in males than females. This may be due to the hormonal influence, physical build, degree of physical activity. Breath holding time are significantly higher in males than in females because of larger lung volumes in males and the females are more susceptible to hypercapnia and hypoxia.

There is slightly better correlation of BHT and PFT in females than in males. Both FVC and PEFR are significantly higher in males than females, may be due to the strength of expiratory muscles under genetic as well as hormonal influences and the larger lung volume.

Conclusion

Breath holding time is a simple, non-invasive, inexpensive test to assess pulmonary function which can provide useful information in healthy and diseased lungs. This can also be used to assess the prognosis of such respiratory diseases. There is a greater gender variability in males than in females. Females have greater sensitivity to hypercapnia and hypoxia. To breathe is to live, and without breath there is no life. Hence patients with bronchial asthma may be helped out to adapt the complementary and alternative therapy to improve their well-being and prevent from the complications.

Recommendations for Future Research

This study helped to provide the additional information on relationship that exists between the pulmonary function measures and breathe holding time, it also revealed areas that would benefit the further research.

The study can be done in a large scale, and can be compared the breath holding time with asthma and other respiratory disorders.

References
1. Melbye H, Medbo A, Crockett A. The FEV1/FEV6 ratio is a good substitute for the FEV1/FVC ratio in the elderly. Prim Care Respir J. 2006;15:268–70.
INTRODUÇÂO
Impacto dos problemas de saúde crônica estão ligados com os comportamentos e a postura do ambiente sobre a doença. O sistema de saúde de cuidados está mudado para hospitalizações que podem ser eliminadas ou curtos. Ações de promoção de saúde estão cada vez mais apreciadas para indivíduos e famílias, as estratégias são incorporadas no sistema de cuidados de saúde. Assim, o paciente e a família devem estar dispostos a participar em comportamentos promovendo sua saúde e modificando seu estilo de vida. O auto-manhagamento envolve o indivíduo, a família como um todo, alcançando resultados.

MÉTODOS
Foco do estudo

Recensione de Literatura

Rhee et al (2010) explorou os obstáculos percebidos pelos adolescentes e determinou as associações entre os obstáculos e fatores psicossociais que causam morbidade de asma em 126 adolescentes com asma. Os dados informados foram analisados. Ocorreu (63%) de adolescentes' unwillingness a abandonar "as coisas que os médicos dizem que eu tenho que abandonar," seguido de dificuldade em lembrar de cuidar de seus astmas (53%), e então tentar esquecer que eles têm asma (50%). Os fatores psicossociais foram 32%. Os obstáculos foram negatividade para o medicamentos, compreensão defeituosa, influência de parentes e rejeição. A eficácia do auto-eficácia foi encontrado para ser o fator mais influente que mostrou fortes associações negativas com todas as quatro dimensões indústria independente de níveis de controle de asma e características demográficas.

Knight, (2010) identificou os comportamentos e auto-práticas de cuidados de adolescentes com asma em uma escola particular, onde a incidência de asma está em 20%. Análise dos dados de 10 audiotape individuais, utilizando um questionário estruturado, resultou em temas maiores de conhecimento e aceitação, eficácia, e a suporte social que estão associados a comportamentos que controlam asma com melhores resultados.
Background of the theory

Essential factors which present as a barrier re Access to health care, transition in health care provider, transportation, and society.

Processes and their enhancement:

Knowledge & Beliefs
Perceptions about a health condition or health behavior

Self-efficacy is the degree of confidence in engaging during normal and stressful situations.

Outcome expectancy:
Engaging to obtain the desired outcomes.

Goal congruence:
Competing demands associated with health goals.

Self-regulation:
Skills and abilities including:
1. Setting goals
2. Self-monitoring
3. Decision making
4. Planning and action
5. Self-evaluation
6. Responses

Social facilitation:
Includes social influence, support, and negotiated collaboration.

Social influence: engaging in health behavior patterns.

Social support: provided to a person or family.

Negotiated Collaboration: family roles and responsibilities.

Outcomes:
Engagement in symptom management, health behaviors practices.

Application of IFSMT for asthmatics

Identified their
- myths and realities.
- barriers in health promotion activities.
- severity of asthma.
- Complexity of condition and treatment
- family structuring

Identified their level of knowledge, attitude and self-efficacy using KASE_Q standardized questionnaire.

Taught about the first aid measures during the asthma attack and coping strategies in order to overcome their illness behavior.

Involved family members in their treatment process by proving both the individual and family counselling.

Dealt about their disease process and the steps to be taken to avoid the asthma attack and the exacerbation of asthma attack.

Family members demonstrated their involvement in the treatment regimens and the symptom management.

Improvement in the Quality of life after attending the counselling session and
The Individual and Family Self-management Theory

Context, Process, and Outcomes

Rodgers proposed this descriptive theory based on deductive and inductive processes showing the relationships among components. Self Management (SM) can be hypothesized as affecting individuals, dyads, or families. SM includes specific risk and protective factors, component of the physical and social environment, and unique characteristics of individuals and family members.

Context dimension

Includes biological, physical, or functional characteristics of the condition, its treatment, or prevention needed to SM. Examples: trajectory.

Process dimension

Engage in the preventive health behaviors on self-efficacy, outcome expectancy, and goal congruence. Self-regulation and Social facilitation includes the concepts of social influence, support, and collaboration between individuals and families and health care professionals.

Outcome dimension

Outcomes is of both the proximal and distal in terms of good health status; quality of life.

Interventions

Interventions aimed at enhancing knowledge and beliefs, increase an individual’s use of self-regulation behaviors and foster social facilitation.

Impact

Developing the interventions on proposed relationships.

Theoretical constructs

In “Self and Family Management Framework” Grey, Knafl, and McCorkle: This occurs within the framework of families, communities and the environment and is influenced by risk and protective factors. These contextual risk and protective factors include health status, individual factors, family factors, and environmental factors, severity of the condition, characteristics of the treatment regimen, and disease trajectory.

The process of self-regulation

Based on the Social Cognitive Theory it identifies shared impact of an individual’s social and physical environment etc.,

RESULTS AND DISCUSSION

Tasks common across chronic conditions

12 tasks common to all the chronic diseases; specifically, symptom management, medications, diet, and all the lifestyle modification strategies.

Conclusion

Nurse should be educated within holistic nursing frameworks that emphasize on primary, secondary and tertiary levels of prevention e.g., health promotion in care of the person including the family members to involve in the patient care to achieve quality of life as an outcome.

REFERENCES


3rd SRU - CITI INTERNATIONAL CONFERENCE ON
"ETHICS AND RESPONSIBLE CONDUCT OF RESEARCH:
BASICS AND BEYOND"
CONFERENCE PROCEEDINGS

11th & 12th November 2014, Sri Ramachandra University, Chennai, India

Organised by:
CITI-India, Sri Ramachandra University
CITI, University of Miami, USA

Co-sponsored by:
Indian Council of Medical Research, New Delhi
Medical Council of India, New Delhi

Commemorating 50th Anniversary of Declaration of Helsinki, 1964
A Study To Determine The Breath Holding Time, Forced Vital Capacity (FVC),
And Peak Expiratory Flow Rate (PEFR) Among Patients With Bronchial Asthma
At Selected Hospital, Chennai

Malarvizhi M¹, M.Bhavani¹, B.Hariprasad²
1. Research scholar, Sri Ramachandra University, Chennai.
2. Professor, Department of Chest and TB, Chennai.

Introduction: Bronchial Asthma is a chronic disease that affects the airways. Lung function declines faster than average in people with asthma. Overall, one study reported that 72% of men and 86% of women with asthma had symptoms 15 years after an initial diagnosis. Only 19% of these people, however, were still seeing a doctor, and only 32% used any maintenance medication. Death from asthma is a relatively uncommon event, and most asthma deaths are preventable. Hence a study was conducted to determine the breath holding time, forced vital capacity (FVC), and peak expiratory flow rate (PEFR) among patients with bronchial asthma. The objectives of the study were to assess the gender variations in pulmonary function determined by breath holding time and pulmonary function tests and to correlate pulmonary function determined by breath holding time with that determined by spirometry.

Method:
Research approach : A Qualitative study design
Setting : Chest OPD, Sri Ramachandra Hospital, Chennai, Tamilnadu.
Sample : 40 patients
Sampling technique : Convenient sampling technique.
Description of the tool: Section A : Demographic variables, Section B : Clinical variables
Section C : Pulmonary variables such as breath holding time by 40 mm Endurance test, forced vital capacity (FVC) by means of spirometry and peak expiratory flow rate (PEFR) by mini Wright peak flow meter.
**Result:** The frequency and percentage distribution of the demographic variables of patients with bronchial asthma. 15 (38 %) of them belongs to the age group of 41-50 years and 23 (57 %) of them are male patients, and majority of 12 (30 %) had no formal education, 12 (30 %) are skilled labors with the income of Rs.5001 to 10,000 are 15 (38 %), 18 (45 %) are living in the rural area, 15 (37 %) has habit of beedi smoker occasionally, 28 (70 %) had family history of first degree relative with bronchial asthma, 16 (40 %) has comorbid illness of diabetes mellitus. The mean and standard deviation of breath holding time among patients with bronchial asthma for male and female is $13.25 \pm 9.25$ and $10.62 \pm 4.23$ respectively. The mean and standard deviation of FVC and PEFR among patients with bronchial asthma for male and female is $3.22 \pm 0.25$, $2.81 \pm 0.51$ and $7.26 \pm 0.96$, $5.09 \pm 1.08$ respectively. There is an significant correlation between the BHT and PEFR.

**Conclusion:** Hence the Nurses play an vital role in imparting the knowledge of interventional modalities to make them to be free from the symptoms eg., Complementary and alternative therapy (Yoga, Meditation etc.). This can be facilitated by motivating the nurses to provide outpatient based education to progress towards their well-being.

**Keywords:** Breath Holding Time, Forced Vital Capacity, Bronchial asthma
Certificate

This is to certify that

M. Malarvizhi

has participated as a Delegate in the CME on “Respiratory Health”
on 17th November 2011
conducted by the Departments of Physiology & Chest Medicine,
Sri Ramachandra Medical College & Research Institute
Sri Ramachandra University

CME Credit hours - 2 hours

Dr. B. RAJAGOPALAN
Organizing Secretary

Dr. R. PADMAVATHI
Organizing Secretary

Dr. K.V. SOMASUNDARAM
Dean of Faculties
SRI RAMACHANDRA CENTRE FOR EXCELLENCE IN RESEARCH ETHICS EDUCATION

SRI RAMACHANDRA UNIVERSITY
(Declared under Section 3 of the UGC Act, 1956)
(Reaccredited by NAAC “A” Grade CGPA 3.62/4)

CERTIFICATE

This is to certify that Prof/Dr/Mr/Ms. Malarvizhi M has presented a paper titled A Study To Determine The Breath Holding Time, Forced Vital Capacity(Fvc), And Peak Expiratory Flow Rate (Pefr) Among Patients With Bronchial Asthma At Selected Hospital, Chennai in the 3rd SRU-CITI International conference on “Ethics and Responsible Conduct of Research: Basics and Beyond” organised by CITI - India, Sri Ramachandra University and CITI, University of Miami, USA on 11th and 12th

Dr. S.P. Thyagarajan
Organising Chairman

Dr. B.W.C. Sathiyasekaran
Organising Secretary

Dr. Paul Braunschweiger
CITI, University of Miami

Prof. K.V. Somasundaram
Dean of Faculties

Commemorating 50th Anniversary of Declaration of Helsinki, 1964
This is to certify that Malarky, M. R. M. was awarded the First/Second Prize in the "Free Paper Session C" of the 3rd SRUCITI International conference on "Ethics and Responsible Conduct of Research: Basics and Beyond" organised by CITI - India, Sri Ramachandra University and CITI, University of Miami, USA on 11th and 12th November 2014 held at Sri Ramachandra University, Chennai, India.

Dr. S.P. Thyagarajan
Organising Chairman

Dr. B.W.C. Sathyasekaran
Organising Secretary

K.V. Somasundaram
Dean of Faculties
Certificate

This is to certify that Mrs. / Mr. / Ms. M. Malarvizhi has participated in the 11th International Nurses Conference conducted at SRI Ramachandra University, from 5th to 7th January, 2015 as a Delegate/Presenter - Poster / Poster Presentation: Plan on asthma health outcomes among patient with bronchial offering credit hours by the Tamil Nadu Nurses and Midwives Council, Chennai-600 004.

Dr. Jaya Jambunathan

Distinguished Professor, College of Nursing
Chairman, University Nursing Education Committee
Director, Ramachandra University College of Nursing
UV Oakridge, USA.
MOTHER THERESA
POST GRADUATE AND RESEARCH INSTITUTE OF HEALTH SCIENCES
(Government of Puducherry Institution)

COLLEGE OF NURSING
4th INTERNATIONAL CONFERENCE 2015
"MILLENNIUM DEVELOPMENT GOAL: CHALLENGES TO CHALLENGE"

CERTIFICATE

This is to certify that Mr/Miss/Mrs M. Malarvizhi has been a Resource Person/Delegate/Presenter of scientific Paper/ Poster at the 4th International Conference "MILLENNIUM DEVELOPMENT GOAL: CHALLENGES TO CHALLENGE" held on 28th & 29th October 2015 at MTPG & RIHS.

Topic: LEVEL OF CONTROL ASTHMATICS; POSTER - ENVIRONMENTAL SUSTAINABILITY

The total credit hours awarded by Tamilnadu Nurses and Midwives Council...
Dear Dr. S. Revathi,

This is to certify that M/s. Mr./Ms./Dr. [Signature] has participated in the 12th International Nurses Conference conducted at Sri Ramachandra University on 5th & 6th January, 2016 as a Resource Person/Delegate/Paper Presenter/Session Chairperson and obtained credit hours of the Tamilnadu Nurses and Midwives Council, Chennai - 600 004.

Determine the frequency and impact of Asthma

Yours sincerely,
[Signature]
Dr. P. V. Vijayaraghavan
Chairperson Conference
[Title]
Sri Ramachandra University, Chennai.

[Signature]
Dr. S. Revathi
Principal, Faculty of Nursing, SRU, Chennai.
GHC NURSING DIRECTORATE

5th INTERNATIONAL NURSING CONFERENCE

In collaboration with
UNIVERSITY OF WISCONSIN
Oshkosh, USA

Certificate of Participation

This is to certify that

Dr./Mr./Ms. Malarvizhi has Won/Participated FIRST in the Poster Presentation which was conducted during the International conference on

I SBAR R COMMUNICATION - CASE SNIPPET - ASTHMA

"Nurse – Physician communication Impacting Clinical Outcomes and Patient Safety"

held at Global Health City, Chennai on 9th January 2016.

Tamilnadu Nurses and Midwives Council has awarded 2 credit hours

K. Ravindranath
Chairman & Managing Director
Global Hospitals Group

Dr. Prof. Jaya Jambunathan
Director Research & Evaluation, Assistant Dean,
University of Wisconsin (UW) Oshkosh, USA

Dr. Prof. Jothi Clara J Micheal
Group Director - Nursing
Global Hospitals Group

Ms. Leena Chandrasekaran
Organising Secretary,
Chief Nursing Officer
Global Health City
EFFECT OF YOGA ON QUALITY OF LIFE AMONG ASTHMATICS: A RANDOMIZED CONTROLLED TRIAL

M.Malarvizhi*, Lecturer, Faculty of Nursing, Sri Ramchandra University, Chennai, India.
Manuscript No.: ISCA-IYSC-2016-15PESY-02

MOTIVATION & NOVELTY OF THE STUDY

Asthma affects 300 million people world wide and causes substantial burden. The breath influences the activities of each and every cell. And most importantly, it is intimately linked with the performance of the brain. Breathing is an essential part of life bringing oxygen in to the body and releasing carbon dioxide out for the normal functioning of the brain and other bodily systems. In the Science of Pranayama, Swami Sivananda writes, “There is an intimate connection between the breath, nerve currents, and control of the inner prana or vital forces”. Thus in a nutshell, yoga can be incorporated as part of our lifestyle in promoting health and maximising quality of life.

SCIENTIFIC CONSENSUS OF YOGA AND ASTHMA

Benjamin Kigler et al. (2012) identified a set of characteristics that predict a positive response to an integrated/lifestyle approach to asthma. Qualitative analysis was done among 12 respondents and 8 non-responders using Asthma Quality of Life scale. Responders demonstrated an attitude of change as challenge, a view of themselves as independent and leaders, ability to accept one’s illness in connection with CAM interventions.

OBJECTIVES

To determine the effect of yoga on quality of life among asthmatics.

METHODOLOGY

Research Design : Randomized Controlled Trial
Sample : Patients with bronchial asthma (Gina)
Sample size : 250
Setting : Department of Chest and T.B. OPD, Sri Ramchandra Hospital
Sampling technique : Block randomization
Tool : Asthma Quality of Life Questionnaire-Juniper, et. al., 2008
Scoring and Interpretation:
Severe impairment - 32 to 79  Moderate impairment - 80 to 127
Mild impairment - 128 to 175  No impairment - 176 to 224

RESULTS (FINDINGS)

Table 1: Frequency and percentage distribution of levels of yoga practice (n=120)

<table>
<thead>
<tr>
<th>Level of Yoga Practice</th>
<th>Study group (n=120)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Posttest I</td>
</tr>
<tr>
<td></td>
<td>No.</td>
</tr>
<tr>
<td>Moderately satisfactory practice (53.5%)</td>
<td>24</td>
</tr>
<tr>
<td>Satisfactory practice (46.5%)</td>
<td>96</td>
</tr>
</tbody>
</table>

Figure 1: Percentage Distribution of QOL (n=120)

Figure 2: Mean Score Domains of QOL (n=120)

CONCLUSIONS

The overall mean score of quality of life in the study group is significantly increased of the control group from baseline to the end of six months. This was supported by the study conducted by Candy sodhi (2014), the result revealed that group A (yoga) patients showed a statistically significant improvement in symptoms, activity and environmental domains of AQOLs at 8 weeks ( p<0.01) and significant reduction in number and severity of attacks, and the dosage of medications required at 4 and 8 weeks compared to the baseline.

IMPLICATIONS & FUTURE PROSPECTS

CARE/PRACTICE - Patient centered approach
ADMINISTRATION - Plan and Policies to meet patient needs
RESEARCH - Innovative methods
EDUCATION - Holistic health care approach

Moderate Quality evidence that yoga probably leads to small improvements in QOL, Symptoms in people with Asthma.

REFERENCES

Workshop on Lifestyle Management

8th & 9th May, 2016

Organized by
International Science Community Association
(Registered under Ministry of Corporate Affairs, Government of India)

in collaboration with
Mother Theresa Post Graduate and Research Institute of Health Science
(A Government of Puducherry Institution)

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Certified that ___________________________ has participated in

Workshop on Lifestyle Management on 8th & 9th May 2016 held at Mother Theresa Post Graduate and Research Institute of Health Science, Puducherry, India

Dr. Ashish Sharma
Coordinator Workshop
Asst. Professor and DCOE
Institute of Applied Science and Humanities, GLA University
Mathura, UP, India

Dr. Edmund O. Ndibuagu
Convener Workshop
Consultant and Lecturer
Dept. of Community Medicine & PHC
Enugu State University Teaching Hospital
Park Lane, Enugu, Nigeria

Prof. Dr. Manjubala Dash
Organizing Secretary Workshop
Professor and Head
Dept. of Obstetrics and Gynecology
MTPG & RIHS
Puducherry, India

Dr. R. Murali
Chief Patron Workshop
Dean
MTPG & RIHS
Puducherry, India

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2nd International Young Scientist Congress (IYSC-2016)
8th & 9th May, 2016
Organized by
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2nd International Young Scientist Congress (IYSC-2016) on 8th & 9th May 2016 held at Mother Theresa
Post Graduate and Research Institute of Health Science, Puducherry, India and presented a research paper
(oral/poster) entitled "Effect of yoga on quality of life among asthmatics: a randomized controlled trial"

He/She has been awarded ____________________________.

Prof. Dipak Sharma
Coordinator IYSC-2016
Professor and Head
Maharaja Ranjit Singh College
Indore, MP, India

Dr. Edmund O. Ndibuagu
Convenor IYSC-2016
Consultant and Lecturer
Emu State University Teaching Hospital
Park Lane, Enugu, Nigeria

Prof. Dr. J. Rukumani
President IYSC-2016
Principal
College of Nursing, MTPG & RHIS
Puducherry, India

Dr. R. Murali
Chief Patron IYSC 2016
Dean
MTPG and RHIS
Puducherry, India