PREVALENCE OF RESPIRATORY SYMPTOMS AMONG THE ELDERLY PEOPLE AT SELECTED OLD HOMES

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PREVALENCE OF RESPIRATORY SYMPTOMS AMONG THE ELDERLY PEOPLE AT SELECTED OLD HOMES.

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DECLARATION

I declare that the work presented here is my own. All sources used have been cited appropriately. Any mistakes or inaccuracies are my own. I also declare that for any publication, presentation or dissemination of the study. I would be bound to take written consent from my supervisor.

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CONTENTS

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All the praise must to Almighty Allah. When I started the study I didn't know whether I could complete it or not, but I believed, 'Fortune favors the brave'. So I was determined to try my best to make it a success and I am most grateful to Almighty Allah. The second acknowledgement must go to my family members for always inspiration and provided necessary financial support. I would like to pay my highest gradetitude to my Course co-ordinator Md. Obaidul Haque and my research supervisor Muhammad. Millat Hossain, Lecturer of BHPI, not only for their valuable suggestion and guidelines but also for optimistic and courageous attitude to taking challenges that have inspired me throughout the project. I would like to reimburse my special appreciation all of respondents of my research project who supported me through smooth conversation during data collection and also thanks to all of the lecturer of BHPI. My special thanks to Nasirul Islam, Assistant professor of BHPI, Md. Anwar Hossain, Assistant professor of BHPI, Md. Shofiqul Islam, lecturer of BHPI, Md. Moniruzzaman, lecturer of BIHS, and also thanks to Faruq Ibn Sadeq, Nahid parvej Tonmoy, Mahmudul Hasan and Md. Golam kibria Razib for their kind contribution to do my research. I would also like to special thanks to BHPI librarian Mosammat Mohesana and Syeda Akter for their heartily help and library assistant Anichur Rahman and Md. Rubel Dakua, for their positive help during the project study. Finally I would like to state my grateful feelings towards some of my friends for their continuous suggestions and supports.

Abbreviations

BHPI:	Bangladesh Health Professions Institute.
CRP:	Centre for the Rehabilitation of the Paralyzed
RS:	Respiratory Symptoms
NIEHS:	National Institutes of Environmental Health Sciences.
WHO:	World Health Organization
BOPUK:	Boyesko Punarbashan Kendro.
BAAIGM:	Bangladesh Association for the Aged and Institute of Geriatric Medicine.

List of Figures

Abstract

Purpose: To identify the prevalence of respiratory symptoms among the elderly people attend at selected old homes. *Objectives*: To estimate the prevalence of respiratory symptoms, to find out the common respiratory symptoms, to identify the influencing demographic factors for such exposure group in relation to age, sex, previous occupations, long living area, smoking habit, past history of physical exercises, history of respiratory diseases, family history of respiratory diseases and past history of regular exposure to fume or dust and to figure out the level of physiotherapy service reception for respiratory symptoms among the elderly people. *Methodology:* The study design was cross sectional. Total 35 samples were collected by simple random sampling. Data was collected by mixed type of questionnaire. Descriptive statistics were used for data analysis which focused through table, pie chart and bar chart. *Results*: The study shows that 62.9% (n=22) participants had respiratory symptoms and male shows greater prevalence 54.5% (n=12). Participants who were in between 68-72 years of age group were most commonly suffered from respiratory symptoms 54.5% (n=12). 81.8% (n=18) participants, who were passing most of their time in urban area were more experienced to respiratory symptoms than semi urban area and most of the participants 45.5% (n=10) were service holder. Most common symptom was cough 31.8% (n=7), followed by breathlessness 22.7% (n=5), whistling 18.2% (n=4) and Cough with chest congestion 18.2% (n=4). Least common symptoms were stuffy nose 9.1% (n=2). Most of the participants 86.4% (n=19), had no past history of physical exercises followed by hypertensive drug user 63.6% (n= 14), chest diseases 54.5% (n=12), family history of respiratory diseases 50% (n=11), smoker 45.5% (n=10), were smoker and 18.2% (n=4), had the past history of regular exposure to fume or dust. Among the participants no one received physiotherapy treatment for their respiratory symptoms. *Conclusion*: Elderly people are more vulnerable to have respiratory symptoms. From the data base, it was found that almost two third of the participants reported respiratory symptoms and ratio of respiratory symptoms was higher in male. More research should be undertaken on respiratory symptoms among the elderly with an emphasis on larger sample sizes and response rate to be able to generalize the results and conclusions.

CHAPTER-I: INTRODUCTION

1.1Background of the study

Bangladesh is a country with 123.6 million inhabitants. The country is now passing through the second phase of its demographic transition. The crude birth rate declined from 48 per 1000 in 1970 to 27 per thousand in 1995 and the crude death rate from 21 per 1000 in 1970 to 11 per thousand in 1995. In the same period, the total fertility rate (TFR) declined from 7.0 in 1970 to 3.3 in 1995-96 and under-five mortality declined from about 250 in 1970 to 113 in 1995 (Mostafa and Ginneken, 1999). All these changes have resulted in an increased number of elderly people in the country. According to WHO (2010) the term elderly (also known as 'old age' or 'older people') is used to describe the last period of time in human life. There is no internationally accepted age bracket for defining the older population. US Census Bureau, European literature and other relevant literatures defines older population as those aged 65 years or above. Older population in the context of Bangladesh has been defined as those who have completed 60 years of age & it has been acknowledged by Alam (2000).

Kalache (1996) stated that people 60 years and older are the aged people. The process of ageing (a process of increase of the proportion of elderly) in the population has already started in Bangladesh. This can be supported by the following statistics. In 1961, 5.2 percent of the total population of Bangladesh was 60 years and older. This proportion increased to 6.1 percent in 1995 and is expected to increase to 9.1 percent in 2010. In absolute numbers this means an increase from 2.9 million in 1961 to 7.3 million in 1995 and to 13.2 million in 2010 (Mostafa & Ginneken, 1999). The aged (60 years and older) population of Bangladesh is expected to increase to 17.62 million in 2025 (Kabir, 1994). In fact, by the beginning of this century, Bangladesh was projected to have one of the world's 15 largest elderly populations. This large number of elderly will certainly have a significant impact on society, which has already been facing many problems including health service-related problems. Freitas et al., (2010) argued that the aging process changes in the respiratory system. These changes are related to decrease both lung elastic recoil and the thoracic complacency capacity. In the musculoskeletal system, there is a reduction in respiratory muscle

strength with the aging process. Geffen (2006) has stated that anatomical changes that occur in the respiratory system may predispose an older person to an increased risk of respiratory diseases. It has been acknowledged (Enright et al., 1994) that respiratory problems have become most common problem worldwide during the past decades and increasing day by day. Lung diseases are a major cause of illness, disability, and death among those 65 years of age and older. Accurate information about respiratory symptoms among the elderly people is needed for medical and public health planning purposes.

Haque & Alam (2003) argued that Aging is universal and it is inescapable, beginning at birth, which should be regarded as a normal biological process leading to functional deterioration, vulnerability and ultimately culminating to extinction of life. Elderly people are more vulnerable to respiratory diseases than the younger. Freitas et al., (2010) stated that respiratory function in older adults is compromised as a result of changes in pulmonary physiology. With aging, diminished cough reflex and impaired gag reflex makes the geriatric patient more prone to infectious pulmonary diseases. A decreased cough and gag reflex also makes the older patient more susceptible to aspiration and obstruction complications. It has been shown (Ohrui, 2004) that the prevalence of exertional dyspnoea, cough and sputum, emphysema and heart disease increased with age. The commonest symptoms among elderly were exertional dyspnoea (27.2%) and wheezing (20.5%). Chronic bronchitis was reported by 12.0% and emphysema by 1.2%. Abramson et al. (2008) suggest that males were significantly more likely to report cough and sputum, while females were more likely to report asthma. Chronic bronchitis, emphysema and most respiratory symptoms were associated with aging. Respiratory disease affects the quality of life for older people in Bangladesh. Common respiratory diseases that impact on health include chronic obstructive pulmonary disease (COPD) and asthma. These illnesses and conditions can range from mild to life-threatening and this has been established by Haque & Alam (2003). Eight million people suffer from respiratory disease in the UK and serious causes of respiratory disease kill one in four people in the UK and this has been established by Scott, Field & Fraser (2009).

1.2 Justification

Through this study it will be possible to identify the respiratory symptoms as well as their associated risk indicators related to the elderly people living in old homes in Bangladesh. Moreover, the study aimed at providing recommendations in light of the risk factors for the prevention of the respiratory symptoms. Besides, the study intends to put contribution to the establishment and enrichment of respiratory physiotherapy interventions in the elderly care in old homes in Bangladesh. In addition, as an important health care profession which is relatively new in Bangladesh, the service to the specialized area of health care, for instance, aged people is not fully incorporated into the health care service delivery yet. However, it is expected that physiotherapy professional development will be facilitated through the enrichment of knowledge, especially in an advanced area of geriatric physiotherapy. During the study data collection process investigator can help them to teach and give proper education and treatment about respiratory problems and preventive methods. It will help to focus and present the role and importance of physiotherapy service in for the ever increasing elderly persons in Bangladesh.

1.3 Research question

What is the prevalence of respiratory symptoms among the elderly people?

1.4 Objective of the study

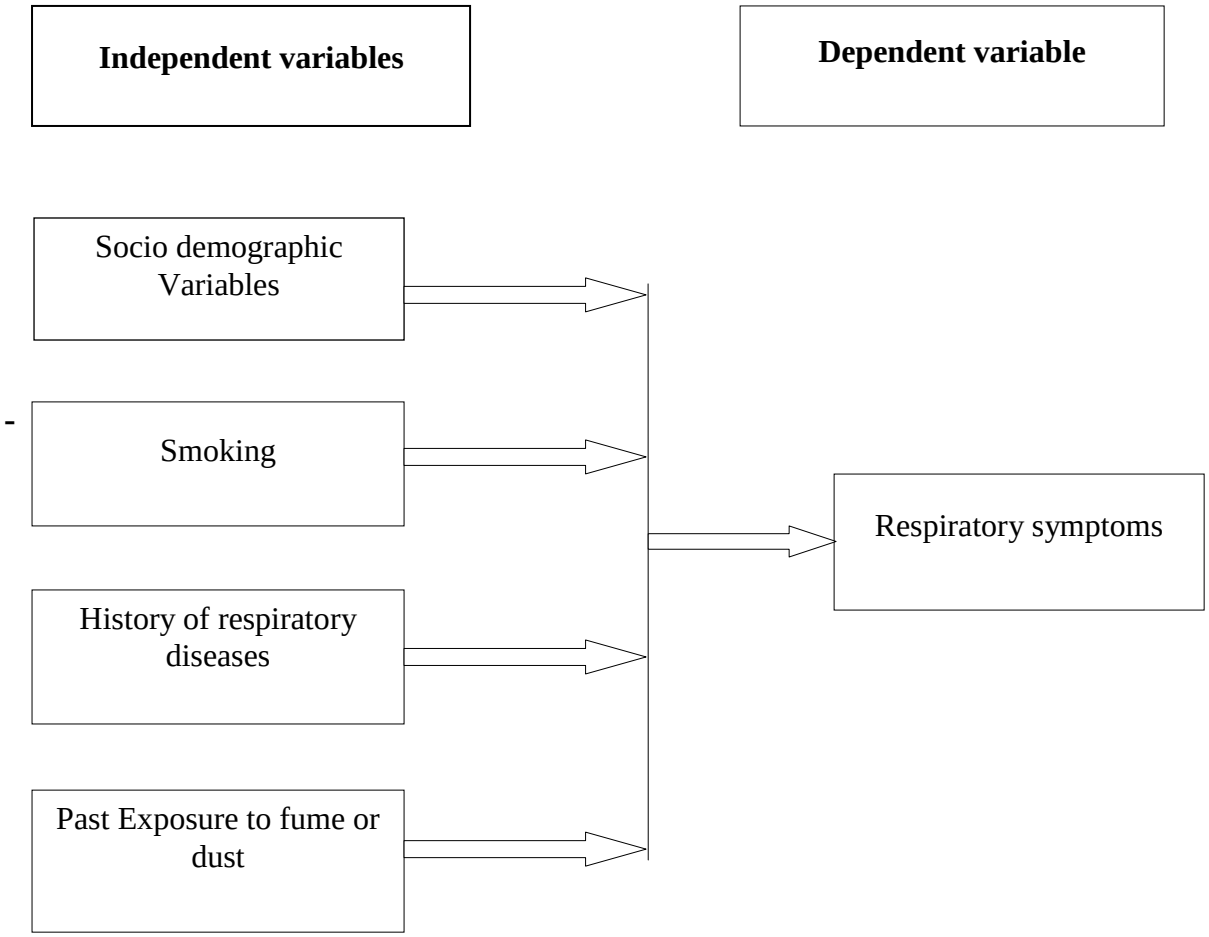
1.4.1 General objective

To identify the prevalence of respiratory symptoms among the elderly people.

1.4.2 Specific objectives

1. To estimate the prevalence of respiratory symptoms complained by the elderly people.
2. To find out the common respiratory symptoms among the elderly people.
3. To identify the influencing demographic factors for such exposure group in relation to age, sex, previous occupations, long living area, smoking habit, past history of physical exercises, history of respiratory diseases, family history of respiratory diseases and past history of regular exposure to fume or dust.
4. To figure out the level of physiotherapy service reception for respiratory symptoms.

1.5 Conceptual framework



1.6 Operational definition:

Respiratory symptoms: Subjective evidence of respiratory disease or physical disturbance observed by the patient.

Risk indicator: A risk indicator is an indicator that estimates the potential for some form of resource degradation using mathematical formulas or models.

Elderly people: The term elderly (also known as 'old age' or 'older people') is used to describe the last period of time in human life. There is no internationally accepted age bracket for defining the older population. In Bangladesh those who have completed 60 years age are called elderly people.

Old homes: A place where old people live and are looked after is called old homes.

Cough: Cough is a protective reflex which rids the airway of secretions or foreign bodies.

Breathlessness: Breathlessness is a subjective sensation that patients describe as chest tightness, air hunger, inability to take a deep breath, a feeling of suffocation or smothering, or an inability to get enough air.

Chest congestion: Chest congestion is the excess tracheobronchial secretions that are cleared from the airway by coughing or huffing.

CHAPTER-II: LITERATURE REVIEW

This section provides an outline about some demographic view of elderly population around the world as well as specifically in Bangladesh. A brief discussion will also be provided about different respiratory symptoms and their associated risk indicator among the elderly. An outline about the respiratory symptoms, elderly care and elderly care home services for elderly people in Bangladesh.

Respiratory symptoms

Merriam Webster's Medical Dictionary (2007) defines respiratory symptoms as subjective evidence of respiratory disease or physical disturbance observed by the patient such as Breathlessness, cough, wheeze etc. Hewitt et al., (2005) acknowledged that respiratory disease and symptoms are common problems in older people. Respiratory disease affects both the quality of life in elderly individuals and morbidity, although estimates of the prevalence of respiratory symptoms vary. Scott, Field & Fraser (2009) explained that the respiratory symptoms are common among patients at the end of life, no matter what their diagnosis is. The most common of these are dyspnoea, cough, and hemoptysis. Respiratory symptoms can be very distressing to the patient as well as their family and loved one. According to Pryor & Webber (1998) there are five main symptoms of respiratory disease: Breathlessness or dyspnoea, cough, sputum and haemoptysis, wheeze, chest pain.

Dyspnoea

Dyspnoea is a subjective sensation that patients describe as chest tightness, breathlessness, air hunger, inability to take a deep breath, a feeling of suffocation or smothering, or an inability to get enough air. The symptoms usually worsen with exertion and often limit the patient's activity. Dyspnoea induces feelings of anxiety, fear, panic, and fear of impending death and this has been established by Nicholls (2000). Vander (1995) suggests that breathlessness is one of the most frightening and distressing symptoms that a patient can experience and, like pain, can only be interpreted and reported by the person experiencing it. Moody et al., (1990) stated that, the occurrence of severe disability and death in chronic lung disease is related more closely to symptoms of breathlessness than any other single factor.

Cough

Beehler (2003) define cough as a protective reflex which rids the airway of secretions or foreign bodies. Any stimulation of receptors located in the pharynx, larynx, trachea, or bronchi may induce cough. Mischoe & Welch (2002) demonstrates that cough is a difficult symptom to clarify as most people cough normally every day, yet a repetitive persistent cough is both troublesome and distressing. Smokers may discount their early morning cough as being 'normal' when in fact it signifies chronic bronchitis. This has been emphasized by Pryor & Webber (1998) that the important features concerning cough are its effectiveness and whether it is productive or dry. The severity of cough may range from an occasional disturbance to a continual trouble. A load barking cough, which is often termed 'bovine', may signify laryngeal or tracheal disease. Recurrent coughing after eating or drinking is an important symptom of aspiration. Moody et al., (1990) stated that a chronic productive cough everyday is a fundamental feature of chronic bronchitis and bronchiectesis. Interstitial lung disease is characterized by a persistent, dry cough. Nocturnal cough is an important symptom of asthma in children and young adults, but in older patients it is more commonly due to cardiac failure. Cough is a common symptom in patients with pulmonary infection with secretion production, chronic bronchitis, bronchospasm, tumours in the airways, restrictive lung diseases, aspiration, post-nasal drip, drugs such as the angiotensin-converting enzyme inhibitors, unrecognized esophageal reflux with aspiration, or inhaled irritants.

Sputum

Scott (2009) argues that in a normal adult, approximately 100 ml of tracheobronchial secretions are produced daily and cleared subconsciously. Millar (2003) demonstrate that sputum is the excess tracheobronchial secretions that is cleared from the airway by coughing or huffing. It may contain mucus, cellular debris, microorganism, blood and foreign particles. Questioning should be determined the colour, consistancy and quantity of sputum produced each day. This may clearify the severity and diagnosis the disease. In clinical practice sputum is often classified as mucoid, mucopurulent or purulent, toghether with an estimation of the volume.

Haemoptysis

Haemoptysis is the present of blood in the sputum. It may range from slight streaking of the sputum to frank blood. Frank haemoptysis can be life threatening, requiring bronchial artery emobolisation or surgery. Isolated haemoptysis may be the first sign of bronchogenic carcinoma, even when the chest radiograph is normal. Patient with chronic infective lung disease often suffer from recurrent haemoptysis (Beehler, 2003). Abramson (2002) explained that coughing up blood or bloody sputum can be a frightening experience, but usually is not life-threatening. It may at times be difficult to determine whether or not the source of bleeding is in the lungs. Nasal, pharyngeal, and upper oesophageal blood may also ooze into the upper airways and be coughed up. The most common pulmonary causes of haemoptysis are infections, such as bronchitis or tuberculosis, and neoplasms.

Wheeze

According to Pryor & Webber (1998) wheeze is a whistling or musical sound produced by turbulent airflow through narrowed airways. These sounds are noted by patients when audible at the mouth. Stridor, the sound of an upper airway obstruction, is often mistakenly called ‘wheeze’ by patients. It has been established by Mischoe & Welch (2002) that wheeze are musical tones produced by airflow vibrating a narrowed or compressed airway. A fixed, monophonic wheeze is caused by a single obstructed airway, while polyphonic wheezes are due to widespread disease. Any cause of narrowing, for example bronchospasm, mucosal oedema, sputum or foreign bodies, may cause wheezes.

Non cardiac chest pain

Chest pain in respiratory patients usually originates from musculoskeletal, pleural or tracheal inflammation. Pearce et al., (1998) argued that pleuritic chest pain is caused by inflammation of the parietal pleura and is usually described as a severe, sharp & stabbing pain which is worse on inspiration. It is not reproduced by palpation. Burney et al., (1994) acknowledged that tracheitis generally causes a constant burning pain in the center of the chest, aggravated by breathing. It has been argued by Borm et al., (2002) that musculoskeletal chest pain may originate from the muscles, bones, joints or nerves of thoracic cage. It is usually well localized and exacerbated by chest and/or

arm movement. Palpation will usually reproduce the pain. This has been emphasized by Snell (2000) that the pleural surfaces are supplied with an extensive network of sensory nerves and often are exquisitely sensitive to inflammatory or invasive disorders. According to Mandryk, Alwis & Hocking (1999) deep breathing or coughing usually causes sharp and aggravated pleural pain. Airway inflammation can cause discomfort in the anterior retrosternal chest, and it is thought that pulmonary hypertension also can cause a nonspecific discomfort anteriorly over the hilar regions. Pryor & Webber (1998) demonstrates that sharp or aching chest wall pain can be caused by bone metastases, rib fractures, or muscle injuries (occasionally from coughing). Pain from the diaphragmatic surface is referred to the shoulder tip.

Other Symptoms

Of the other symptoms a patient may report, a number have particular importance.

Fever (Pyrexia) is one of the common features of infection, but low-grade fevers can also occur with malignancy and connective tissue disorders. Meneghetti (2011) explore that infection may occur without fever, especially in immunosuppressed (e.g. chemotherapy) patients or those on corticosteroids. Pryor & Webber (1998) stated that high fevers occurring at night, with associated sweating (night sweats), may be the first indicator of pulmonary tuberculosis.

Headache is an uncommon feature of respiratory disease. Meneghetti (2011) argued that morning headaches in patients with severe respiratory failure may signify nocturnal carbon dioxide retention. Early morning arterial blood gases or nocturnal transecutaneous carbon dioxide monitoring are required for confirmation

Peripheral oedema is the respiratory patient suggests right heart failure which may be due to cor pulmonale (right ventricular failure secondary to hypoxic pulmonary vasoconstriction). Peripheral oedema may also occur in patients taking high-dose corticosteroids, as a result of salt and water retention & it has been established by Farzann (1992).

Risk factors

Tobacco smoking

The risk factors for respiratory disease differ. It has been argued (Farzan, 1992) that smoking is a major risk factor for COPD as well as environmental pollutants and chemicals which affect both COPD and Asthma. It has been established (Enright et al., 1994) that current cigarette smokers reported a higher prevalence of most respiratory symptoms than did former or never smokers. Tobacco use is the most important preventable risk factor for respiratory disease. Hallberg et al., (2008) acknowledged that exposure to tobacco smoke can either be direct as a result of cigarette smoking, or indirect as a result of exposure to environmental tobacco smoke. Whether direct or indirect, exposure to tobacco smoke contributes to asthma, chronic obstructive pulmonary disease (COPD) and lung cancer. It has been acknowledged (Gergen, 2001) that those who quit smoking can greatly reduce their risk of developing respiratory diseases compared with those who continue to smoke. In general, the longer the period of cessation from smoking the greater is the reduction in risk.

Genetic factor

Genetic factors also contribute to the development of respiratory diseases. Sandford, Weir & Pare (1997) established collaboration to the role of genetic factor in relation to asthma and chronic bronchitis. The only established genetic risk factor is homozygosity for the Z allele of the α1-antitrypsin gene. Heterozygotes for the Z allele may also be at increased risk. Other mutations affecting the structure of α1-antitrypsin or the regulation of gene expression have been identified as risk factors.

Indoor and outdoor air pollution

Air pollution (indoor and outdoor air pollution) is a major environment related health threat and risk factor for both acute and chronic respiratory disease. According to WHO (2002), an estimated 36% of all lower respiratory infections and 22% of chronic obstructive diseases in the world were caused by indoor air pollution The report showed further that indoor air pollution is responsible for the deaths of two million people every year that is one death every second.

Occupational exposure

Many environmental factors contribute to the development of respiratory diseases. World Health Organization (2002) emphasized the importance of environmental factors in lung disease and stated that respiratory diseases usually occur while the worker is exposed to common lung irritants such as air pollution or dust. In later stages of the disease, symptoms may occur away from work after exposure to common lung irritants. An estimated 15 percent to 23 percent of new adult asthma cases in the United States are due to occupational exposures. These exposures in the workplace also can worsen pre-existing asthma. Occupational asthma is usually reversible, but permanent lung damage can occur if exposure continues. It has been argued (Jaakkola and Pipari, 2003) that men working in forestry and with metals and women in the service industries (waitresses, cleaners and dental workers) have the highest risk for occupational asthma.

Obesity

It has been established (Schwartz & Weiss, 1990) that higher levels of obesity increase the incidence of respiratory problems such as asthma, airway hyper responsiveness. In addition, obese individuals have decreased lung function. Gibson (2000) argued that weight reduction of obese could improve symptoms, airway hyper responsiveness, and lung function.

Dietary habit

According to Gibson (2000), dietary factors which increase the risk of other medical disease may also be harmful for respiratory health, and these include high salt intake, increased n-6 and trans fatty acids, increased body mass index, and possibly food additives.

Salt intake:

Britton et al. (1994) demonstrates that high salt diets increase the risk of respiratory diseases. A decrease in salt intake is associated with improvement of lung function and airway hyper-responsiveness.

Fatty acids

Black and Sharpe (1997) shows that those countries that had higher levels of trans-fatty acid intake had higher prevalence of respiratory diseases. Higher levels of margarine consumption increased the risk of asthma, although others have not this effect.

Food additives

King et al., (2005) demonstrate that some common food additives have been suggested as risk factors for exacerbation of respiratory diseases and they include tartazine, monosodium glutatamate, and sulfites.

Allergy

Moorman et al., (2007) suggests that the prevalence of respiratory allergic diseases in the elderly is increasing and mortality rates are highest among patients over 65 years old with asthma. It has been shown (Bom and Pinto, 2009) that asthma is a chronic inflammatory disorder of the airways, characterized by a widespread but variable bronchial obstruction and by hyper-responsiveness to several triggers. Allergic rhinitis is a disorder of the upper airways resulting from IgE-mediated inflammation of the nose upon contact of the nasal mucosa with allergens. Approximately 75% of patients with asthma also have rhino sinusitis, which in turn is a risk factor for asthma.

Socioeconomic condition

It has been shown (Prescott and Vestbo, 1999) that socioeconomic status, whether measured by education, income, or other indices of social class, has long been known to be associated with respiratory diseases. A social class gradient in the prevalence of respiratory symptoms in elderly, in particular cough and sputum, was first observed in early studies in the UK by Speizer (1997). According to Rasmussen (1998) poor housing conditions and home dampness with increased house dust mites and gas stove usage are all associated with respiratory symptoms, reduced lung function, and lower socioeconomic status. Household crowding has been hypothesised to cause increased instances of respiratory infections and thus increased rates of respiratory disorders and it has been established by Ehrlich et al., (2004).

Degree of Urbanization

Degree of urbanization was a significant risk factor for developing respiratory symptoms. It has been shown by (Grimby & Wiklund, 1994) that elderly from rural areas were 22% less likely to have wheezed in the last 12 months than elderly from urban areas.

Number and Percentage of the Elderly Population

Bangladesh is now the 8th populous country in the world and at present, the number of the elderly people is 9.41 million, which is larger than the national population of many countries of the world. The percentage increase of the elderly population has a slow but steady increase during 1951 to 2007 periods (Report on Sample Vital Registration System, 2007).

Old Homes

According to Macmillan English Dictionary (2009), a place where old people live and are looked after is called old homes. Cobuild (2003) define old homes as a place where old people live and are cared for when they are too old to look after themselves. Most of elderly have poor health, economic hardship, live alone with helplessness and social insecurity (Islam, 2004). Institute or elderly care homes may be only possible way of getting the help they need. Old homes or elderly care homes serve to assist elderly people with shelter, medicare, meals and clothes etc. Home for the elderly provide protective living accommodation who require minimal supervisions in a sheltered environment and who are otherwise able to take care of their own needs (Rahim, 2007).

Old homes in the Bangladesh

Amin (1996) demonstrate that the situation of care for the elderly in Bangladesh is complex. It is generally expected that an elderly person will live with her/his children and will be taken care of by them. Families are considered to be the primary place of care for the elderly in Bangladesh. However, in reality care for the elderly within family or household may not take place as smoothly as it is perceived to do, particularly in the case of the elderly poor. Alam (2000) emphasizes that there are not only more than three or four Old homes in Bangladesh. Their activities are much

limited. In Dhaka Bangladesh Association for the aged & Institute of Geriatric Medicine (BAAIGM) and Suberta Trust provide care to the elderly. BAAIGM situated in Agargaon and there were about 40 elderly people lived there. Suberta trust has two branches. One branch is in Shaymoli and another one is in Savar and there were about 30 elderly people lived there. These three organizations prefer money to provide services. Another old home is Boyesko punarbashan Kendro (BOPUK) which provide services without any cost. It has two branches, one is in Gazipur and other is in Rangamati. Haque & Alam (2003) has argued that not more than six houndred people over the age of 55 live in the old homes in Bangladesh.

CHAPTER-III: METHODOLOGY

3.1 Design of the study

Cross sectional study design was used for identifying the prevalence of respiratory symptoms among the elderly people.

3.2 Study site

Bangladesh Association for the aged and Institute of Geriatric Medicine (BAAIGM) and Suberta Trust were selected as study site.

3.3 Study area

Respiratory

3.4 Study population and sampling

All the elderly people who live in old homes were the population of this study because the researcher was interested to find out the proportion of respiratory symptoms among the elderly people lived in old homes. Samples were selected by simple random sampling procedure from two selected old homes that is Bangladesh Association for the aged and Suberta trust.

3.4.1 Sampling procedure of the study

Samples were selected by simple random sampling procedure considering the inclusion and exclusion criteria.

3.4.2 Inclusion criteria

- Both male and female were selected- In this study, the investigator wanted to explore the proportion of respiratory symptoms and its risk indicators among the elderly people.
- People who live in old homes - Because the study focused on respiratory symptoms and its risk indicators among the elderly people of old homes in Bangladesh.
- Subject who were willing to participate in the study- Otherwise they will not give exact information that will helpful to the study.

3.4.3 Exclusion criteria of the study:

- Person who were mentally retardate. Because mentally retarded person could answer appropriately that can mislead the result of the study.
- Subject who are medically unstable. Because medically unstable patient can be confused with the question that can mislead the result of the study.

3.5 Sample size of the study

The actual sample size for this study is calculated 339.

Formula:

$$n = \left\{\frac{Z(1-\frac{\alpha}{2})}{d}\right\}^2 \times pq$$

Here,

$Z(1-\frac{\alpha}{2})$= 1.96

P= 0.67

q= 1-p

= 1-0.67

= 0.33

d= 0.05

But as the study was done as a part of fourth professional academic research project and there were some limitations so the researcher had to limit with 35 elderly people as sample.

3.6 Data collection method and tools

In this study data were collected by questionnaire. Following that the investigator went to elderly people in old homes to take permission if they are interested in this study or not. Firstly, the investigator introduced himself and the research project as well its purpose. Then investigator met with individual subject to find out if they were interested in participating. For data collection, the investigator used Bengali questionnaire and close ended questions.

The researcher used consent forms and questionnaire for data collection. Researcher also used SPSS (Statistical Package for the Social Sciences) software to analyze data and other materials such as pen, paper, pen drive, and computer.

3.7 Informed Consent

For this study interested subjects were given consent forms and the purpose of the research and consent forms were explained to the subject verbally. They were told that participation is fully voluntary and they have the right to withdraw at any time. They were also told that confidentiality would be maintained. Information might be published in any presentations or writing but they will not be identified. The study results might not have any direct effects on them but the members of Physiotherapy population may be benefited from the study in future. They would not be embarrassed by the study. At any time the researcher will be available to answer any additional questions in regard to the study.

3.8 Ethical consideration

The proposal of the study is approved by the ethical committee of the member of faculty of Physiotherapy Department. The investigator would follow the guideline given by local ethical review committee and also followed WHO & BMRC guidelines. Strictly maintained the confidentiality and informed consent would be taken.

3.9 Limitation of the study

The researcher faced some limitation while conducting the research project.

- This study has attempted to provide a few data on respiratory symptoms among the elderly attend at old homes. Few previous researches have been found on this topic. So there was little evidence to support the result of this project in the context of Bangladesh.
- The result of the study cannot be generalized to the whole population of Old homes in Bangladesh as the samples were collected only from two old homes in Dhaka city.
- Respiratory symptoms were identified by a questionnaire, and the questionnaire was developed only through searching sufficient literature.

CHAPTER-IV: RESULT

4.1 Socio-Demographic Characteristics of the respondents

The mean age of the respondents was (mean ± SD): 67.91± 6.294 years. The majority of the respondents 48.6% (n=17) were 68 to 72 years of age. Among 35 respondents 45.7% (n=16) were male and 54.3% (n=19) were female. A substantial number of the respondents 34.3% (n=12) were widow and followed by married 28.6% (n=10), widower 25.7% (n=9) and 8.6% (n=4) were unmarried.

Mean income of the respondents were 13842 Tk. Majority of the respondents in this study was from 10000-15000tk income category which represents 45.7% (n=16).
Majority of the respondents 28.6% (n=10) completed graduation followed by those who completed HSC 25.7% (n=9). Most of the respondents in this study were service holder 42.9% (n=15) followed by housewife 25.7% (n=9) and businessman 22.9% (n=8). The other occupations in this study were 8.6% (n=3).

Among the 35 respondents 62.9% (n=22) were affected by respiratory symptoms whether 37.1% (n=13) did not. The mean age of the affected respondents were (mean ± SD): 67.87 ± 5.646 years and unaffected respondents were (mean ± SD): 68.54 ± 7.468 years.

Among the respondents who had suffered from respiratory symptoms, 54.5% (n=12) were male whereas 45.5% (n=10) were female and respondents who had no respiratory symptoms, 53.8% (n=7) were male whereas, 46.2% (n=6) were female.

4.2 Prevalence of Respiratory symptoms

Among the 35 participant 62.9% (n=22) participants suffered from respiratory symptoms whether 37.1% (n=13) did not (figure-1).

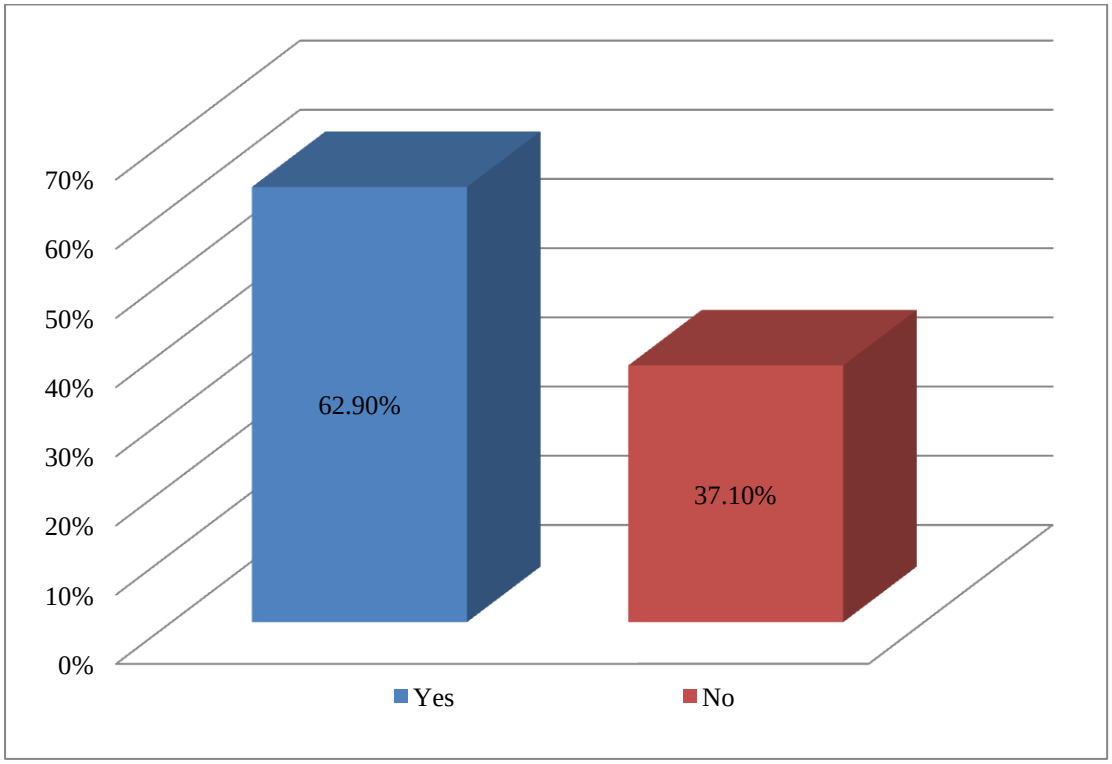


Figure-1: Shows the proportion of respiratory symptoms.

4.3 Male and female ratio

Among the respondents who had suffered from respiratory symptoms, the most 54.5% (n=12), were male whereas only 45.5% (n=10), were female (figure-2).

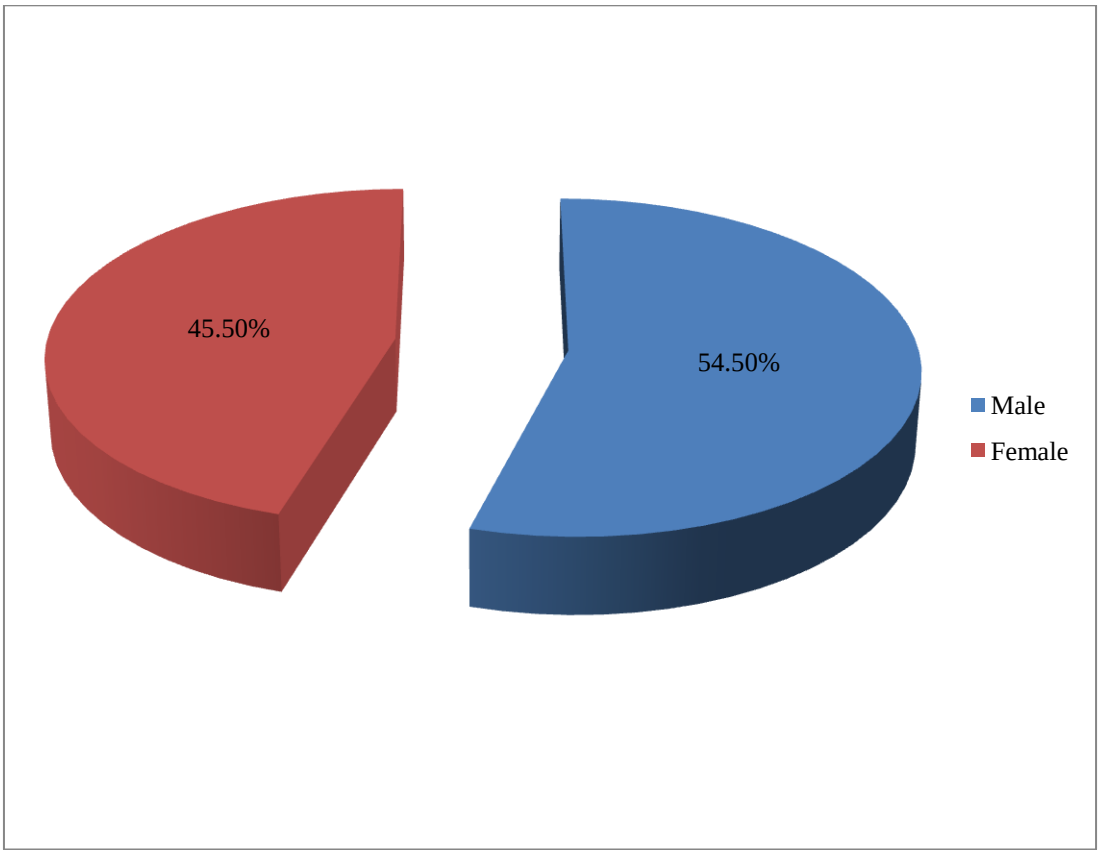


Figure-2: Shows the male female ratio.

4.4 Distribution of respiratory symptoms among different age group

Most of the participants 54.5% (n=12), were in between 68-72 years suffered from respiratory symptoms followed by 18.2% (n=4), participants in between 56-62 years, 13.6% (n=3), participants in between 63-67 years, and 13.6% (n=3), participants were >70 years of age (figure-3).

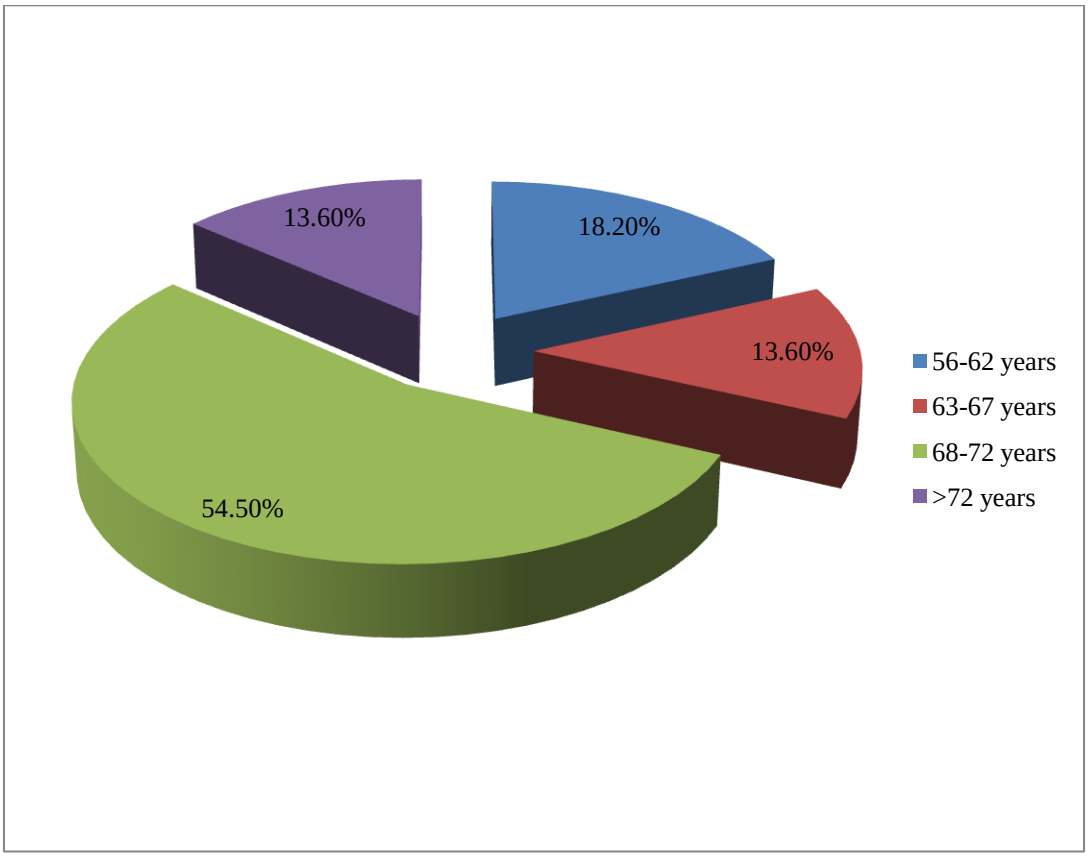


Figure-3: Shows the distribution of respiratory symptoms among different age group.

4.5 Distribution of respiratory symptoms among different occupational group

Among the elderly people with respiratory symptoms, the majority were service holder 45.5% (n=10), followed by housewife 22.7% (n=5), businessman 22.7% (n=5), and 9.1% (n=2), were other occupational group as shown in figure-4.

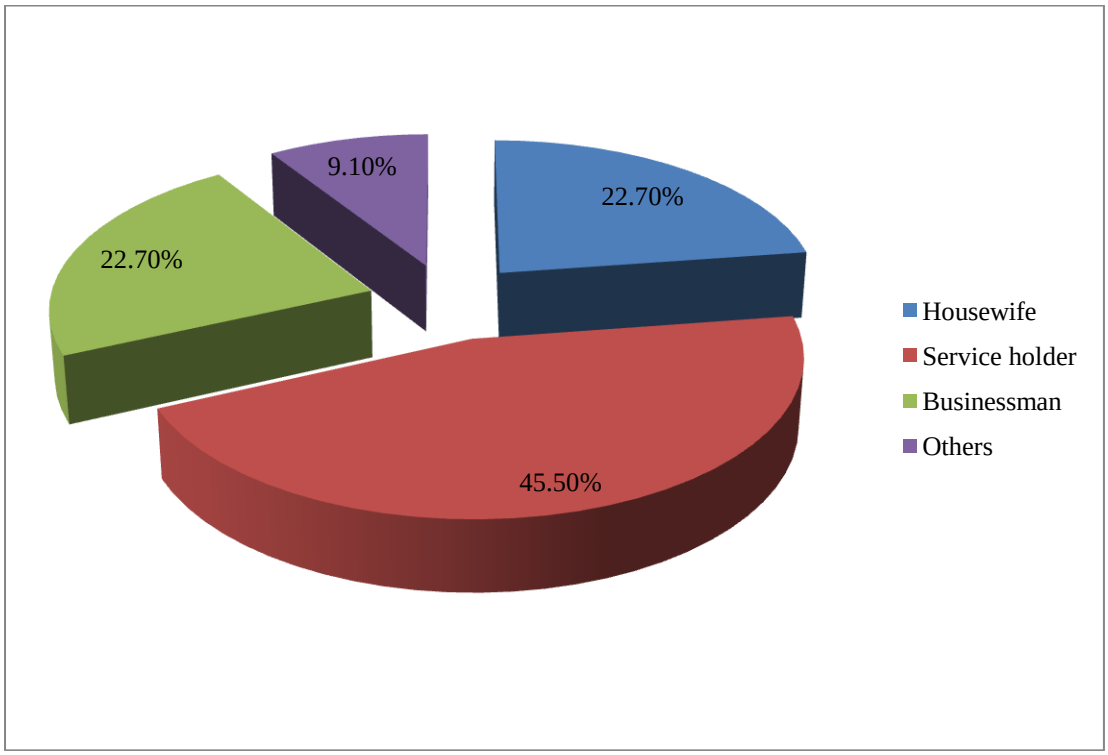


Figure-4: Shows the distribution of respiratory symptoms among different occupational group.

4.6 Distribution of respiratory symptoms by long living area

Among the respondents who had respiratory symptoms most of them 81.8% (n=18), were lived in urban area and rest of them 18.2% (n=4) were lived in semi urban area (figure-5).

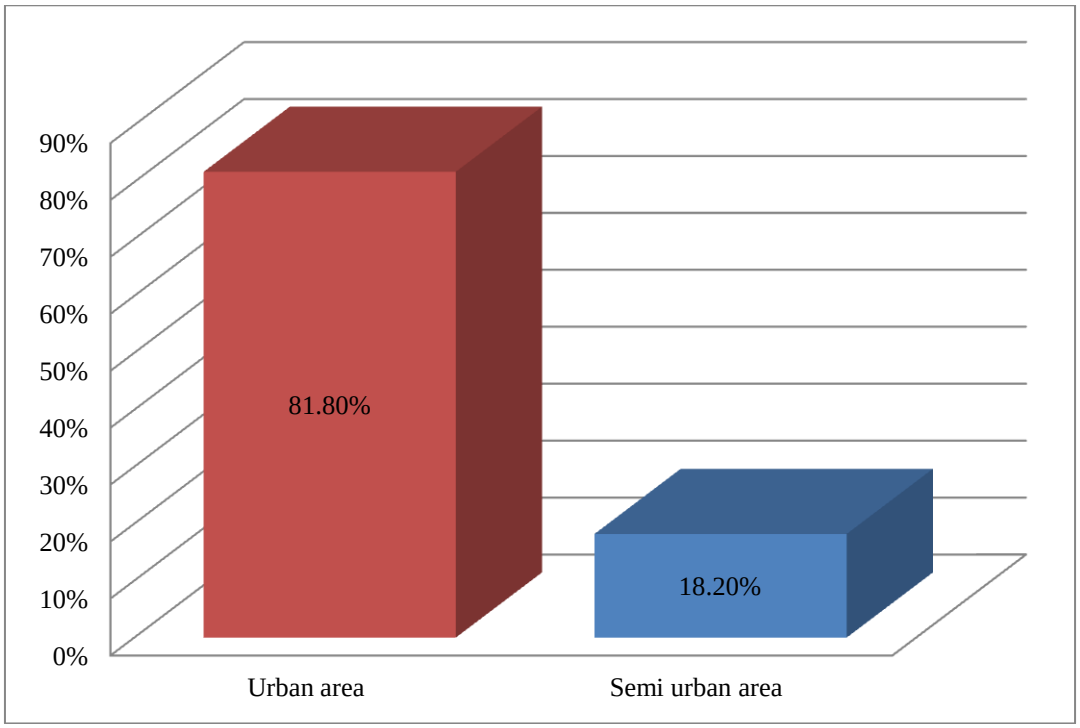


Figure-5: Shows the distribution of respiratory symptoms by long living area.

4.7 Common respiratory symptoms

Among 22 participants who suffered from respiratory symptoms 31.8% (n=7), participants had suffered from cough, 22.7% (n=5) participants had breathlessness, 18.2% (n=4) participants had chest sound or whistling, 18.2% (n=4) participants had cough with chest congestion, 9.1% (n=2), participants had stuffy nose (figure-6).

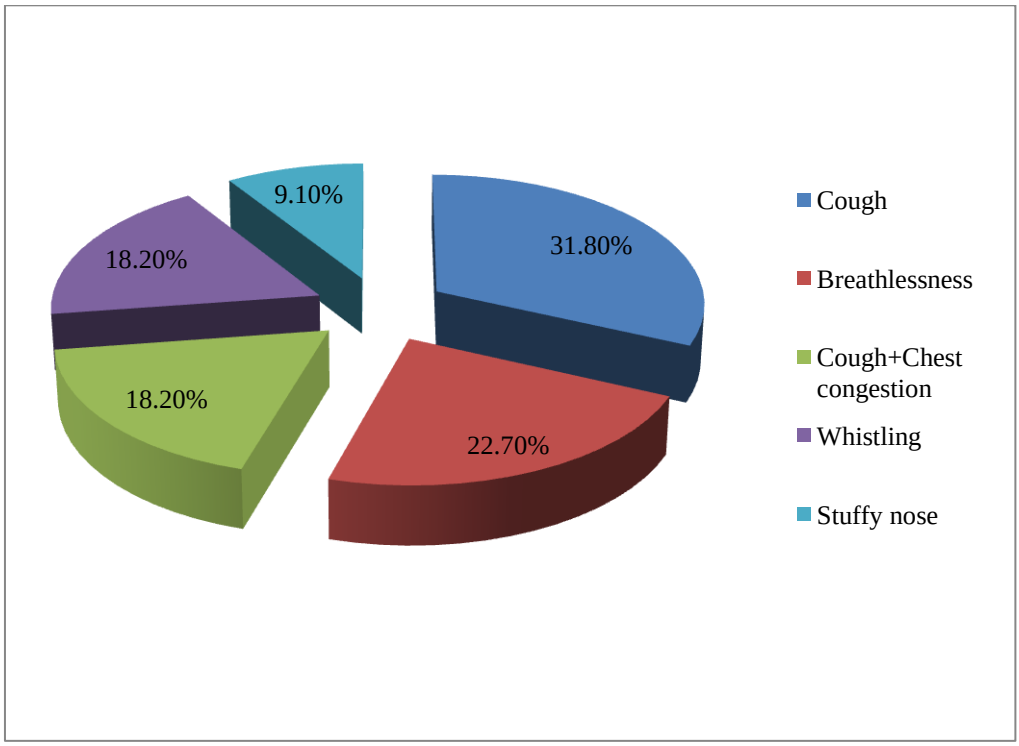


Figure-6: Shows respiratory symptoms.

4.8 Percentages of smoker among the peoples with respiratory symptoms

Among the participants who suffer from respiratory symptoms majority 54.5% (n=12) were non smoker (Figure-7).

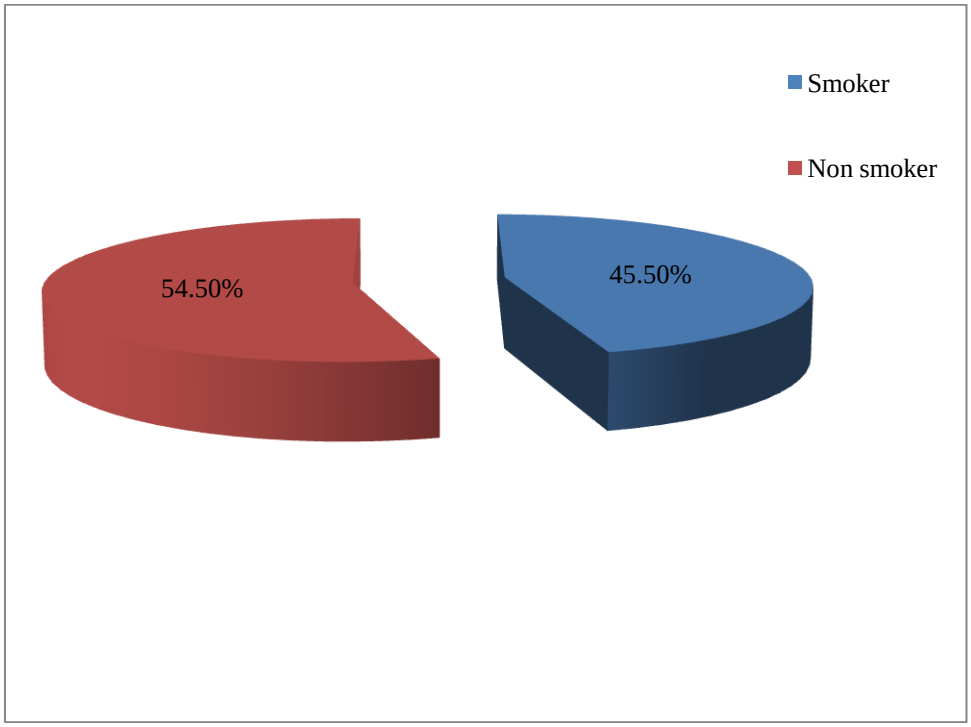


Fig-7: Shows the proportion of smoker among the peoples with respiratory symptoms.

4.9 Proportion of chest diseases among the peoples with respiratory symptoms

Among the participants who suffer from respiratory symptoms 54.5% (n=12), participants had the history of chest diseases (figure-8).

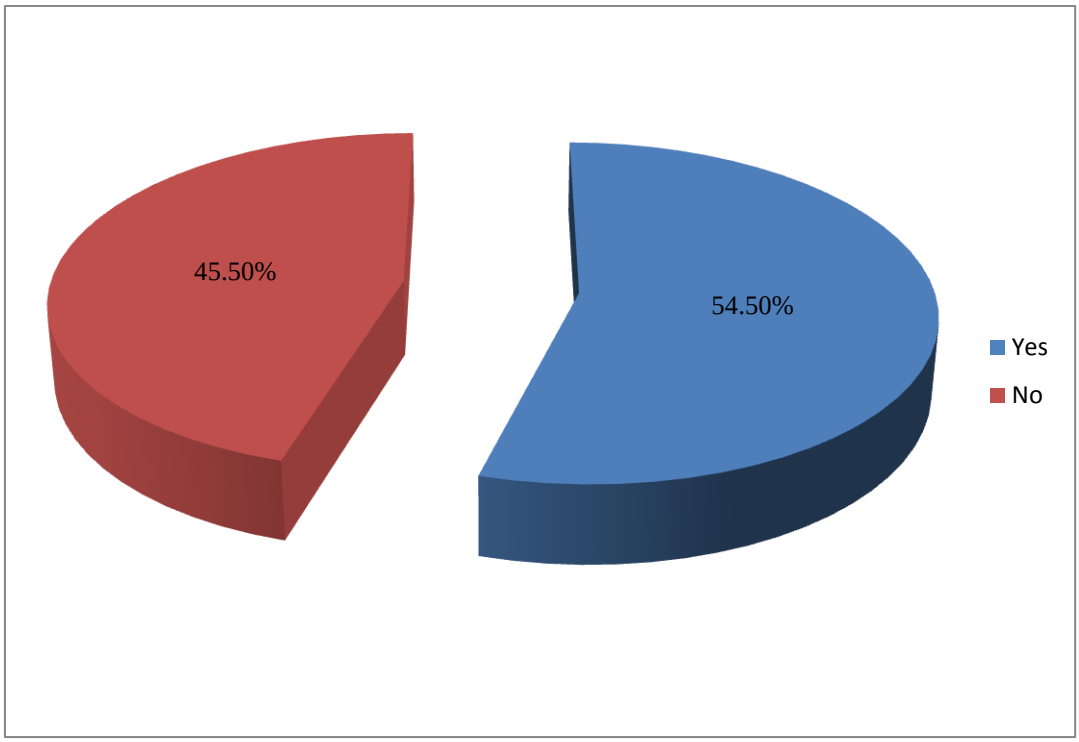


Figure-8: Shows the proportion of chest diseases among the peoples with respiratory symptoms.

4.10 Percentages of past history of physical exercise among the peoples with respiratory symptoms

Among the participants who suffer from respiratory symptoms 86.4% (n=19), had no past history of physical exercises (figure-9).

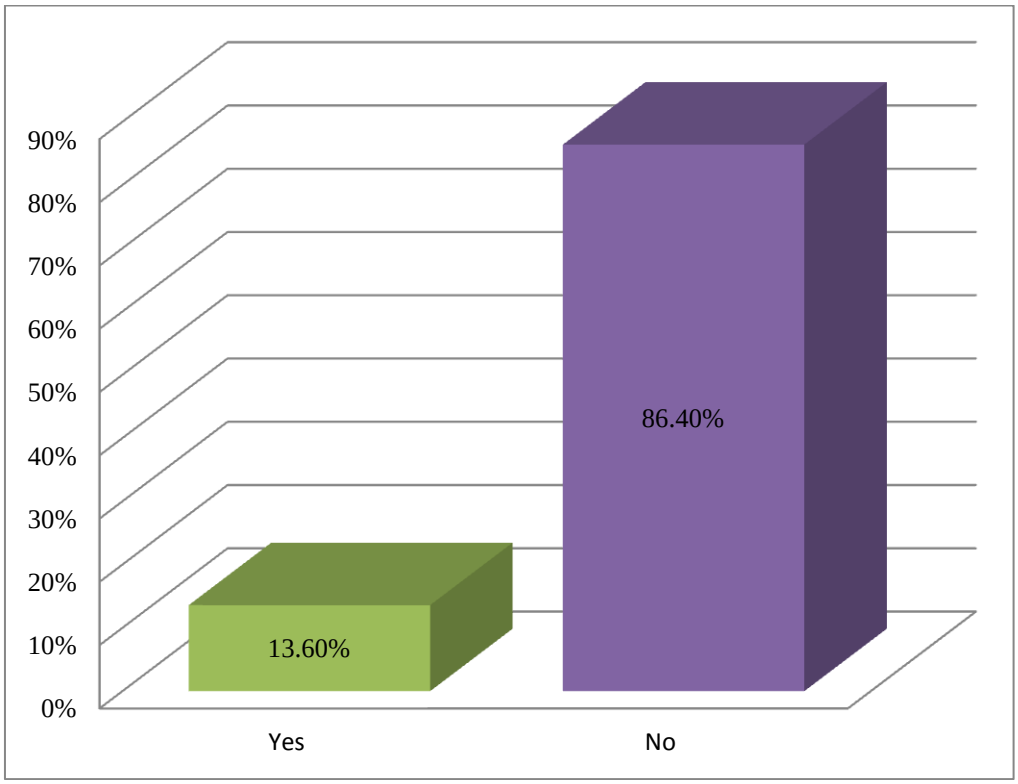


Figure-9: Proportion of past history of physical exercise among the peoples with respiratory symptoms.

4.11 Family history of respiratory diseases and respiratory symptoms relationship

Among the participants with respiratory symptoms half of the participants 50% (n=11), had positive family history of respiratory diseases and rest half of them had no positive family history of respiratory diseases (Figure-10).

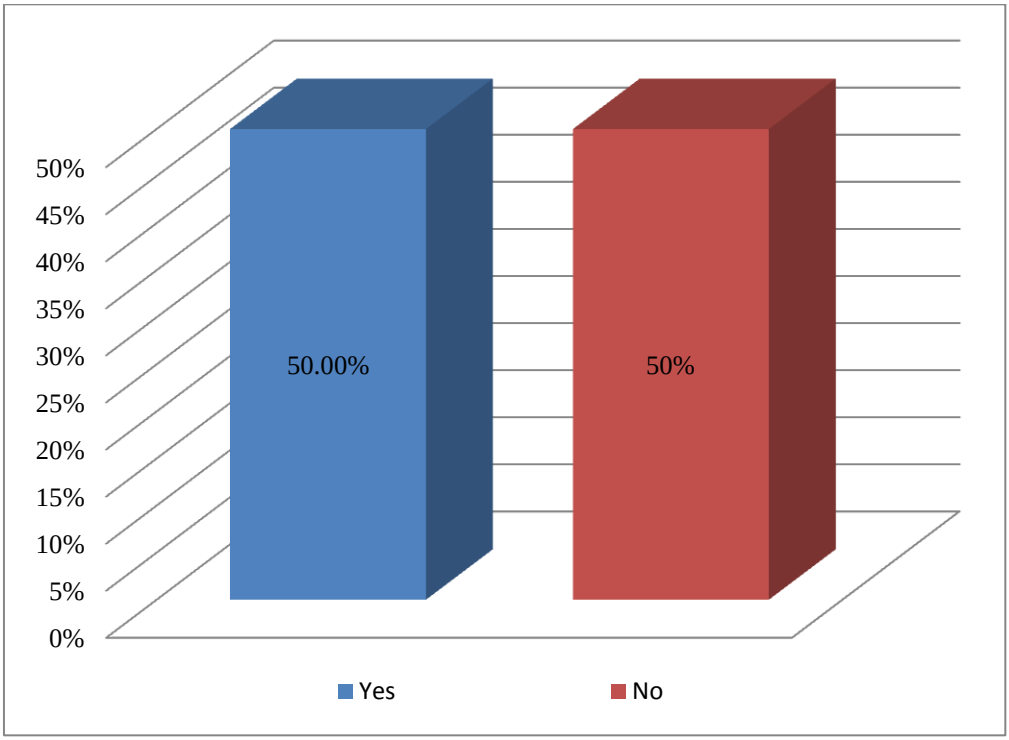


Figure-10: shows Proportion of family history of respiratory diseases among the peoples with respiratory symptoms.

4.12 Percentages of past exposure to fume or dust among the respondents with respiratory symptoms

Among the participants with respiratory symptoms, 81.8% (n=18) participants had no past history of regular exposure to fume or dust (figure-12).

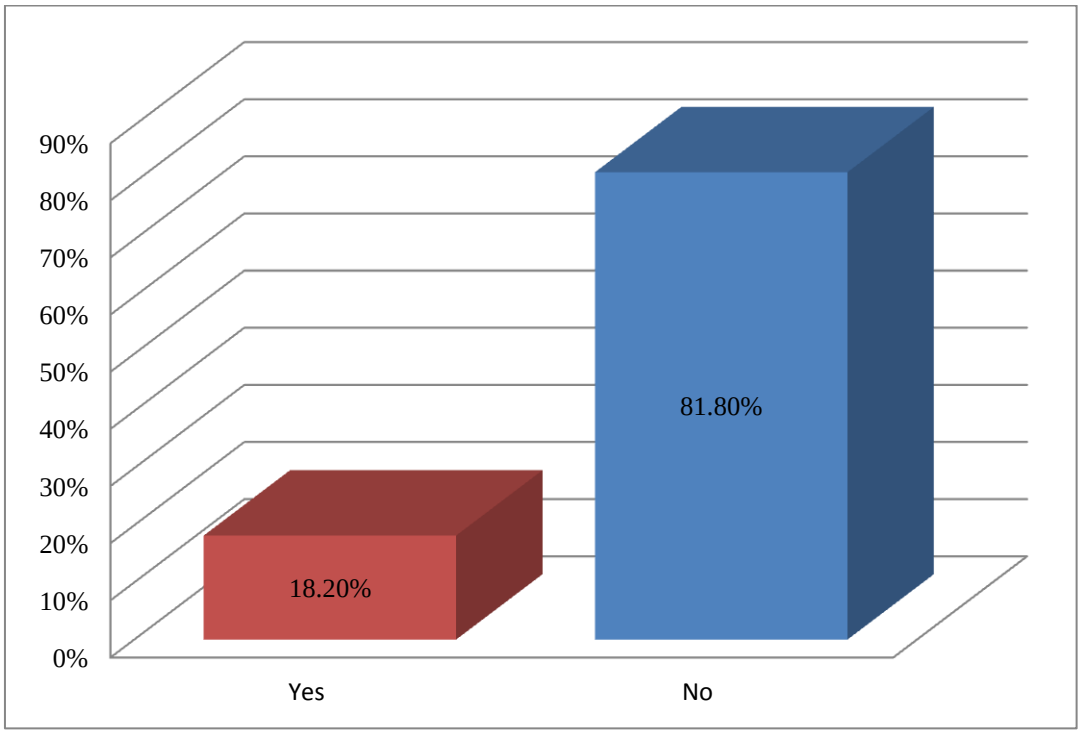


Figure-12: Percentages of exposure to fume or dust among the respondents with respiratory symptoms.

4.13 Level of physiotherapy service reception for respiratory symptoms

Almost two third of the respondents had respiratory symptoms and among them no one received physiotherapy treatment for respiratory symptoms.

CHAPTER-V: DISCUSSION

The study found that almost two third of the participants reported respiratory symptoms and ratio of respiratory symptoms was higher in male. Cough was the most common symptoms among the elderly lived in old homes.

From the database it was found that almost two third of the elderly people had respiratory symptoms. Hewitt et al (2005) stated that 70.6% people over the age of 75 or more are suffer from respiratory symptoms in Great Britain. It has been argued by Zock et al (2007) that 67% people in Spain suffer from respiratory symptoms over the age of 60.

The analysis showed that among the respondents with respiratory symptoms more than half were female. Zock et al (2007) established that one-third of the populations in Galacia were men, who were suffering from various types of respiratory symptoms and they were on average 7 years older than the women. Men have higher rates (64.5%) for respiratory diseases among persons over 75 years of age in United States and it has been established by Morris and Munasinghe (1994).

In this study it was found that more than half of the participants with respiratory symptoms were in between 68 t0 72 years of age. Morris and Munasinghe (1994) explore that the proportion of respiratory symptoms (64.5%) were higher among the persons over 75 years of age. A study of chronic respiratory symptoms among 83 men and 217 women aged 65and over found that 40% per cent of the men and 20 % of the women had chronic respiratory symptoms in Scotland. The prevalence of chronic respiratory symptoms was related to age in both sexes and it has been argued by Caird and Akhtar (1972).

Among the elderly people with respiratory symptoms, the majority were service holder in this study. Vermeulen et al (2002) explore that respiratory symptoms are traceable to employment or occupation. 62.5% industrial workers (metal, rubber, plastics and synthetics), 24.5% official workers and 13% other workers had respiratory symptoms in Netherland.

Most common respiratory symptoms in this study were cough followed by breathlessness, chest sound, chest congestion and stuffy nose. Hewitt et al (2005) established that the prevalence of respiratory symptoms is widespread among elderly people in Great Britain. Coughing up phlegm in winter mornings had a prevalence of 27.0%, breathlessness in winter had a prevalence of 16.5%, Wheeze or whistling from the chest had a prevalence of 14.3%. Ghasemkhani et al (2006) argued that the prevalence of respiratory symptoms was phlegm (41.6%), dyspnea (41.7%), feel tightness (27.4%), nose irritation (23.5%) and cough (20.7%) in South Tehran, Iran.

In this study it was found that majority of elderly people were nonsmoker among the people with respiratory symptoms. It has been argued by Liard et al. (1980) that the prevalence of chronic respiratory symptoms, dyspnoea and wheezing was more closely associated with the number of cigarettes smoker among the adults in Paris Industrial Medical Centre. The prevalence of dyspnoea was significantly higher in smoking females (19.3 %) than in non-smoking females. The prevalence of wheezing was significantly higher in smoking male (18.2%) than in non smoking male and the proportion of cigarettes smokers was higher among males (57%) than among females (41.4 %).

Analysis showed in this study that more than half of the people with respiratory symptoms had the history of chest diseases among the respondent with respiratory symptoms. Galobardes (2008) showed in research that proportion of respondents with a medical history of bronchitis, pneumonia or asthma was more likely to have respiratory symptoms compared with those who did not have a history of these respiratory ailments. A medical history of a respiratory disease (bronchitis, pneumonia and asthma) in early life was associated with a 57% greater risk of overall respiratory symptoms.

Analysis showed in this study that more than three fourth of the people had no past history of physical exercises among the people with respiratory symptoms. Cheng et al. (2003) established that most of the participants (66%) with respiratory symptoms were physically inactive in China. Physical activity is associated with maintenance of cardio respiratory fitness. Change in physical activity habits is associated with change in cardio respiratory fitness.

Among the participants with respiratory symptoms, half of the participants had family history of respiratory diseases in this study. Sandford (1997) suggested that positive family history of respiratory diseases or genetic factors also contribute to the development of respiratory symptoms and it has been investigated as potential risk factors for respiratory diseases. Heterozygosity for the mutation in a group of patients with pulmonary emphysema (18%), and in a group of patients with bronchiectasis (19%), was significantly higher than in normal controls (5%) in Italy.

Researcher found in this study that more than two third of the respondent had the past history of regular exposure to fume or dust. Ahmed (2009) had explored that exposure to flour dust causes increased work related respiratory symptoms in bakery workers in Sudan. The study revealed that majority of respondents (40%) who were exposed to dust for ten years or more, had respiratory symptoms.

The researcher found in this study that among the people with respiratory symptoms no one received physiotherapy treatment for respiratory symptoms. They were not aware about the role of physiotherapy in respiratory area. Physical therapy contributes towards assessing and treating various aspects of respiratory disorders such as airflow obstruction, mucus retention, alterations in ventilatory pump function, dyspnea, impaired exercise performance and quality of life. Gosselink (2006) had shown in his research that exercise training, peripheral and respiratory muscle training, airway clearance techniques and lung expansion in spontaneous breathing patients (lung expansion maneuvers, huffing and assisted coughing) and in mechanically ventilated patients (bags squeezing), and breathing retraining (pursed lips breathing, active expiration) are effective in selected patients with disorders affecting the respiratory system.

CHAPTER-VI: CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

Respiratory disease and symptoms are common problems in older people. Respiratory disease affects both the quality of life in elderly individuals and morbidity, although estimates of the proportion of respiratory symptoms vary. Individuals of 60 years and above age are prone to develop certain diseases and ailments which are uncommon in younger age groups. For the fulfillment of this study the investigator used a quantitative research model in the form of a prospective type survey. Conveniently 35 participants who lived in old homes were collected from two Old homes. The investigator used a questionnaire. Each Participant was given a questionnaire to identify proportion of respiratory symptoms and its risk indicator among them. And from the documents of the patients the researcher forms a data base for the total sample included in the study. From the data base, it was found that two third of the participants had respiratory symptoms. Percentages of respiratory symptoms were higher in male and among them most of the participants were service holder and more than half of the people with respiratory symptoms were 68-72 age group. Cough was the most common respiratory symptoms followed by breathlessness, chest sound or whistling, cough with chest congestion and stuffy nose. The participants who suffered from respiratory symptoms more than half were non smoker, more than half had history of chest diseases, more than two third had no history of physical exercises, half of the participants had family history of respiratory diseases and almost two third of the participants was taking antihypertensive drugs and no one had taken physiotherapy treatment for their respiratory symptoms.

602 Recommendation

The investigator has tried to show proportion of respiratory symptoms and its risk indicators among the elderly people according to participants view. But due to limitation the investigator was not able to gather huge amount of participant and for this result cannot be generalized in all the old homes over the Bangladesh. So for further study it is recommended to increase sample size to generalize the result in all of the elderly people lived in old homes in Bangladesh. The purpose of the study was to identify the prevalence of respiratory symptoms among the elderly people. The

researcher identified some further step that might be taken into consideration for the better accomplishment of further research. For the ensuring of the generalizibility of the research it is recommended to investigate large sample. In this study researcher only took the elderly people who lived in old homes in Dhaka. So for further study researcher strongly recommended to include all old homes from all over Bangladesh. In this study investigator only identified the proportion of respiratory symptoms and its risk indicators among the elderly people so it is recommended for further study to identify the prevalence of respiratory symptoms and their associated risk factor among the elderly people. Beside this in this study the ratio of male and female participants were unequal. So it is recommended for further study to take the participants equally for comparison of gender and respiratory symptoms.

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APPENDIX-I: INFORMED CONSENT (Bengali)

মৌখিক অনুমতি পত্র

(অংশগ্রহনকারীকে পড়ে শোনাতে হবে)

আস্সালামুওয়ালাইকুম/ নমস্কার, আমার নাম জাহিদ বিন সুলতান নাহিদ। আমি এই গবেষণাটি বাংলাদেশ হেলথ্ প্রফেশনাল ইনস্টিউট (বি এইচ পি আই) এ করছি যা আমার অধিভুক্ত। যার শিরোনাম হল-" **নির্ধারিত বৃদ্ধাশ্রম থেকে বয়োজ্যেষ্ঠ লোকের শ্বাসতন্ত্রের উপসর্গসমূহের হার নিরূপণ।**" আমি এক্ষেত্রে কিছু ব্যক্তিগত এবং আনুষঙ্গিক প্রশ্ন করে **শ্বাসতন্ত্রের উপসর্গ সমুহ** সম্পর্কে জানতে চাচ্ছি। যা আনুমানিক ২০-৩০ মিনিট সময় নিবে। আমি আপনাকে অবগত করছি যে, এটা আমার অধ্যয়নের অংশ এবং অন্য কোন উদ্দেশ্যে এটা ব্যবহৃত হবে না। তাই এই গবেষণায় অংশগ্রহণ আপনার বর্তমান এবং ভবিষ্যৎ চিকিৎসায় কোন প্রভাব ফেলবে না। আপনি যে সব তথ্য প্রদান করবেন তার গোপনীয়তা বজায় থাকবে এবং আপনার প্রতিবেদনের ঘটনাপ্রবাহে এটা নিশ্চিত করা হবে যে, এই তথ্যের উৎস অপ্রকাশিত থাকবে।

এই অধ্যয়নে আপনার অংশগ্রহণ স্বেচ্ছাপ্রণোদিত এবং আপনি যে কোন সময় এই অধ্যয়ন থেকে কোন নেতিবাচক ফলাফল ছাড়াই নিজেকে প্রত্যাহার করতে পারবেন। এছাড়াও কোন নির্দিষ্ট প্রশ্ন অপছন্দ হলে উত্তর না দেয়ার এবং সাক্ষাৎকারের সময় কোন উত্তর না দিতে চাওয়ার অধিকার আপনার আছে।

এটা শুরু করার আগে আপনার কোন প্রশ্ন আছে?
আমি আপনার অনুমতি নিয়ে এই সাক্ষাৎকার শুরু করতে যাচ্ছি?

হ্যাঁ ☐

না ☐

উত্তরদাতার স্বাক্ষর .....

গবেষকের স্বাক্ষর .....

সাক্ষীর স্বাক্ষর .....

APPENDIX-II: INFORMED CONSENT (English)

Title: Prevalence of Respiratory symptoms among the elderly people at selected Old Homes.

Thanks in advance for being a part of my study. My name is Zahid Bin Sultan Nahid, I am a student of Bangladesh Health Professions Institute (BHPI), CRP. As a part of my academic course requirement I need to conduct a research work. The aim of my research topic is to find out the proportion of Respiratory Symptoms and its risk indicators among the elderly people. This will be a Cross sectional type of study and will helpful for elderly people. I assure you that all data will be kept confidential. In report information will be presented in the form of group. No name will be mentioned. For your information Bangladesh Health Professions Institute (BHPI), CRP has permitted me to do the research.

Your co-operation in answering a few questions will be highly appreciated. If you kindly permitted then only shall I start. Shall I start?

Yes ☐

No ☐

With Thanks

Name of the Interviewer:….....

Signature of the Researcher:.....

Name of the attendance:……...

APPENDIX -III: BENGALI QUESTIONNAIRE

শিরোনাম ঃ নির্ধারিত বৃদ্ধাশ্রম থেকে বয়োজ্যেষ্ঠ লোকের শ্বাসতন্ত্রের উপসর্গসমূহের হার নিরূপণ।

তথ্য সংগ্রহের উপকরনঃ প্রশ্নপত্র

সনাক্তকরণ নংঃ | | | | সাক্ষাৎকারের তারিখঃ | |

সাক্ষাৎকার গ্রাহকের নামঃ

উত্তরদাতার নামঃ

মোবাইল নং ঃ | | | | | | | | | | |

তথ্য সংগ্রহের স্থানঃ

০	
১	
২	

ঠিকানাঃ

গ্রাম ঃ		পোস্ট অফিসঃ	
থানা ঃ		জেলা ঃ	

পর্ব -ক (আর্থসামাজিক সম্পর্কিত প্রশ্ন)

ক্রমিক নং	প্রশ্ন	কোড
১	আপনার বর্তমান বয়স কত? (বছর হিসেবে)	৫৫-৬২ বছর = ০ ৬৩-৬৭ বছর = ১ ৬৮-৭২ বছর = ২ > ৭২ বছর = ৩
২	লিঙ্গ	পুরুষ =০ মহিলা =১
৩	আপনার বৈবাহিক অবস্থা কি?	বিবাহিত =০ অবিবাহিত =১ বিধবা =২ ডিভোর্সি =৩ বিপত্নীক = ৪
৪	আপনার শিক্ষাগত যোগ্যতা কি?	অশিক্ষিত = ০ প্রাইমারী থেকে কম =১ প্রাইমারী সম্পূর্ণ = ২ এস,এস,সি সম্পূর্ণ= ৩ এইচ,এস,সি সম্পূর্ণ = ৪ ≥স্নাতক = ৫
৫	আপনার ধর্ম কি?	মুসলমান =০ হিন্দু = ১ খ্রিস্টান= ২ বুদ্ধ = ৩ অন্যান্য = ৪
৬	আপনার পেশা কি ছিল?	গৃহিণী = ০ চাকুরীজীবী =১ দিনমজুর = ২ ব্যবসায়ী = ৩ অন্যান্য = ৪
৭	আপনার পরিবারে মাসিক আয় কত?	≤ ৫০০০ টাকা = ০ ১০০০০-১৫০০০ টাকা = ১ ২০০০০-২৫০০০ টাকা = ২ >২৫০০০ টাকা = ৩
৮	জীবনের বেশীরভাগ সময় আপনি কোথায় বাস করেছেন?	শহরাঞ্চলে = ০ মফস্বল এলাকায় = ১ গ্রামাঞ্চলে = ২

পর্ব-খ (শ্বাসতন্ত্রের উপসর্গ সম্পর্কিত প্রশ্ন)

ক্রমিক নং	প্রশ্ন	কোড
৯.	আপনার কখনো কি শ্বাসতন্ত্রের সমস্যা হয়েছে? (কাশি, শাশা শব্দ, শ্বাসকষ্ট, নাকবন্ধ,কাশির সাথে নির্গত শেষ্মা)	না = ০ হ্যা = ১
১০	আপনার কি কাশি আছে?	না =০ হ্যা = ১ প্রযোজ্য নয় = ২
১১	আপনার বুকে কি কখনো শা শা শব্দ অনুভব করেন?	না= ০ হ্যাঁ =১ প্রযোজ্য নয় = ০
১২	আপনি কি বুকে চাপ অথবা শ্বাসকষ্ট অনুভব করেন?	না =০ হ্যা=১ প্রযোজ্য নয় = ২
১৩	আপনার কি প্রায় সময় নাক বন্ধ থাকে?	না = ০ হ্যাঁ = ১ প্রযোজ্য নয় = ২
১৪	আপনার ফুসফুস থেকে কোন শেষ্মা বের হয়?	না = ০ হ্যাঁ =১ প্রযোজ্য নয় = ২

পর্ব - গ (ঝুঁকির কারন সম্পর্কিত প্রশ্ন)

১৫	আপনি কি কখনো নিয়মিত ধুমপান করেছেন?	না = ০ হ্যাঁ = ১ প্রযোজ্য নয় = ২
১৬	আপনার কি কোনধরনের বুকের সমস্যা আছে? অথবা বুকের কোন অপারেশান হয়েছে?	না = ০ হ্যাঁ = ১ প্রযোজ্য নয় = ২
১৭	আপনি কি নিয়মিত ধোঁয়া অথবা নোংরা পরিবেশের মুখোমুখি হয়েছেন?	না = ০ হ্যাঁ = ১ প্রযোজ্য নয় = ২
১৮	আপনি কি নিয়মিত শারীরিক ব্যায়াম করতেন?	না = ০ হ্যাঁ = ১ প্রযোজ্য নয় = ২
১৯	আপনার পরিবারের কারো শ্বাসপ্রশ্বাস জনিত কোন সমস্যা আছে?	না = ০ হ্যাঁ = ১
২০	আপনার শ্বাসতন্ত্রের সমস্যার জন্য কি আপনি ফিজিওথেরাপি চিকিৎসা গ্রহন করেছেন?	না = ০ হ্যাঁ = ১ প্রযোজ্য নয় = ২

APPENDIX-IV: ENGLISH QUESTIONAIRRE

Title: Prevalence of Respiratory Symptoms among the elderly people at selected Old Homes.

Data collection instrument: Questionnaire

ID NO:				DATE OF INTERVIEW:						

NAME OF INTERVIEWER:	

NAME OF RESPONDENT:	

CONTACT NO:											

PLACE OF DATA COLLECTION:	0	
	1	
	2	

ADDRESS:

VILL.		P.O.	
P.S.		DIST.	

PART- A (SOCIO-DEMOGRAPHIC QUESTIONS)

Serial No.	Question	Coding Category
1.	What is your current age? (In years)	0 = 55-62 years 1 = 63-67 years 2 = 68-72 years 3 = >72 years
2.	Sex	0 = Male 1 = Female
3.	What is your marital status?	0 = Married 1 = Unmarried 2 = Widow 3 = Divorced 4 = Widower
4.	What is your educational qualification?	0 = No formal schooling 1 = less than primary 2 = Primary completed 3 = S.S.C completed 4 = H.S.C completed 5 = ≥ Graduation
5.	What is your religion?	0 = Muslim 1 = Hindu 2 = Christian 3 = Buddhist 4 = Others
6.	What was your previous occupation?	0 = Housewife 1 = Service holder 2 = Day laborer 3 = Business 4 = Others
7.	What was your total family income per month?	0 = < = 5000 TK 1 = 10000-15000 TK 2 = 20000-25000 TK 3 = >25000 TK
8.	Where you spent most of the time in your life.	0 = Urban area 1 = Semi urban area 2 = Rural area

PART- B (RESPIRATORY SYMPTOMS RELATED QUESTIONS)

Serial No.	Question	Coding Category
9.	Have you ever experienced any respiratory complains? (Cough, whistling, breathlessness, stuffy nose, chest congestion)	0 = No 1 = Yes
10.	Do you usually suffer from cough?	0 = No 1 = Yes 2 = Not applicable
11.	Does your chest ever sound whistling?	0 = No 1 = Yes 2 = Not applicable
12.	Does your chest ever feel tight or your breathing becomes difficult?	0 = No 1 = Yes 2 = Not applicable
13.	Do you usually have a stuffy nose?	0 = No 1 = Yes 2 = Not applicable
14.	Do you usually bring up any chest congestion from your chest?	0 = No 1 = Yes 2 = Not applicable

PART-C (RISK INDICATOR RELATED QUESTION)

Serial No.	Question	Coding Category
15.	Have you ever smoked cigarettes regularly?	0 = No 1 = Yes 2 = Not applicable
16.	Have you ever had any other disease condition or chest related operation?	0 = No 1 = Yes 2 = Not applicable
17.	Have ever been exposed regularly to irritating or chemical fume?	0 = No 1 = Yes 2 = Not applicable
18.	Did you involve any physical exercise?	0 = No 1 = Yes 2 = Not applicable
19.	Have your family member ever had any respiratory diseases?	0 = No 1 = Yes 2 = Not applicable
20.	Did you ever receive physiotherapy treatment for your respiratory problem?	0 = No 1 = Yes 2 = Not applicable

APPENDIX-V: PERMISSION LETTER

BANGLADESH HEALTH PROFESSIONS INSTITUTE

বাংলাদেশ হেল্‌থ প্রফেশন্স ইনস্টিটিউট (বিএইচপিআই)
BANGLADESH HEALTH PROFESSIONS INSTITUTE (BHPI)
(The Academic Institute of CRP)

Ref: বিএইচপিআই-৪৬৮৮/০৬/১১

Date :.....২২-০৬-২০১১.....

Bangladesh Association for the Aged and Institute of Geriatric Medicine (BAAIGM)
RECEIVED No: 806
B-6, Probin Bhaban Agargaon, Dhaka-1207, Bangladesh
Date: 26/6 Time: ... Initial:

প্রতি
সহকারী পরিচালক
বাংলাদেশ এসোসিয়েশন ফর দি এইজ্‌ড,
প্রবীন ভবন,
আগারগাও, ঢাকা-১২০৭।

D(H)
Cons (Phy)
Allowed for one month.
2/7/11

বিষয় ঃ রিসার্চ প্রজেক্ট (dissertation) এর জন্য আপনার প্রতিষ্ঠান সফর ও তথ্য সংগ্রহ প্রসঙ্গে।

জনাব,

আপনার সদয় অবগতির জন্য জানাচ্ছি যে, পক্ষাঘাতগ্রস্থদের পুনর্বাসন কেন্দ্রে-সিআরপি'র প্রতিষ্ঠান বাংলাদেশ হেলথ্ প্রফেশনস্ ইনষ্টিটিউট (বিএইচপিআই) ঢাকা বিশ্ববিদ্যালয় অনুমোদিত বিএসসি ইন ফিজিওথেরাপী কোর্স পরিচালনা করে আসছে। উক্ত কোর্সের ছাত্রছাত্রীদের কোর্স কারিকুলামের অংশ হিসাবে বিভিন্ন বিষয়ের উপর রিসার্চ ও কোর্সওয়ার্ক করা বাধ্যতামুলক।

বিএইচপিআই'র ৪র্থ বর্ষ বিএসসি ইন ফিজিওথেরাপী কোর্সের ছাত্র জাহিদ বিন সুলতান নাহিদ তার রিসার্চ সংক্রান্ত কাজের তথ্য সংগ্রহের জন্য আপনার সুবিধামত সময়ে আপনার প্রতিষ্ঠানে সফর করতে আগ্রহী। তার রিসার্চ শিরোনাম "Respiratory symptoms and associated risk indicator among the elderly people: finding from old homes "

তাই তাকে আপনার প্রতিষ্ঠান সফর এবং প্রয়োজনীয় তথ্য প্রদান সহ সার্বিক সহযোগীতা প্রদানের জন্য অনুরোধ করছি।

ধন্যবাদান্তে

মোঃ ওবায়দুল হক
সহকারী অধ্যাপক ও কোর্স-কো অর্ডিনেটর
ফিজিওথেরাপী বিভাগ
বিএইচপিআই।

Received
02.07.011

সিআরপি-চাপাইন, সাভার, ঢাকা-১৩৪৩, বাংলাদেশ, ফোনঃ ৭৭৪৫৪৬৪-৫, ৭৭৪১৪০৪, ফ্যাক্সঃ ৭৭১০০৬৯
CRP-Chapain, Savar, Dhaka-1343, Tel: 7745464-5, 7741404, Fax: 7745069, E-mail: contact@crp-bangladesh.org; Website: www.crp-bangladesh.org
BHPI-Mirpur Campus, Plot-A/5, Block-A, Section-14, Mirpur, Dhaka-1206, Bangladesh, Tel: 8020178, 8053662-3, Fax: 8053661

APPENDIX-VI: PERMISSION LETTER

বাংলাদেশ হেল্‌থ প্রফেশন্স ইনস্টিটিউট (বিএইচপিআই)
BANGLADESH HEALTH PROFESSIONS INSTITUTE (BHPI)
(The Academic Institute of CRP)

Ref: বিএইচপিআই-৪৬৮৯/০৬/১১

Date :.....২২-০৬-২০১১.....

প্রতি
জেনারেল সেক্রেটারী,
সুবার্তা ট্রাষ্ট,
১৫, হলি লেন,শ্যামলী,
ঢাকা-১২০৭।

বিষয় ঃ রিসার্চ প্রজেক্ট (dissertation) এর জন্য আপনার প্রতিষ্ঠান সফর ও তথ্য সংগ্রহ প্রসঙ্গে।

জনাব,

আপনার সদয় অবগতির জন্য জানাচ্ছি যে, পক্ষাঘাতগ্রস্থদের পুনর্বাসন কেন্দ্রে-সিআরপি'র প্রতিষ্ঠান বাংলাদেশ হেলথ্ প্রফেশনস্ ইনষ্টিটিউট (বিএইচপিআই) ঢাকা বিশ্ববিদ্যালয় অনুমোদিত বিএসসি ইন ফিজিওথেরাপী কোর্স পরিচালনা করে আসছে। উক্ত কোর্সের ছাত্রছাত্রীদের কোর্স কারিকুলামের অংশ হিসাবে বিভিন্ন বিষয়ের উপর রিসার্চ ও কোর্সওয়ার্ক করা বাধ্যতামুলক।

বিএইচপিআই'র ৪র্থ বর্ষ বিএসসি ইন ফিজিওথেরাপী কোর্সের ছাত্র **জাহিদ বিন সুলতান নাহিদ** তার রিসার্চ সংক্রান্ত কাজের তথ্য সংগ্রহের জন্য আপনার সুবিধামত সময়ে আপনার প্রতিষ্ঠানে সফর করতে আগ্রহী। তার রিসার্চ শিরোনাম "Respiratory symptoms and ~~associated~~ risk indicator among the elderly people: finding from old homes "

তাই তাকে আপনার প্রতিষ্ঠান সফর এবং প্রয়োজনীয় তথ্য প্রদান সহ সার্বিক সহযোগীতা প্রদানের জন্য অনুরোধ করছি।

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APPENDIX-VII: TIMELINE

Activities	March 2011	April 2011	May 2011	June 2011	July 2011	February 2012
Selection of Topic						
Literature Review						
Selection of Study Area						
Methodology						
Data Collection						
Compiling and Analysis						
Report Writing and Submission						