KNOWLEDGE, ATTITUDE AND SCREENING OF LUNG CANCER AMONG MEN OF A.DH.DHANGETHI BETWEEN THE AGES 30 TO 50 YEARS

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THE MALDIVES NATIONAL UNIVERSITY

June, 2014

KNOWLEDGE, ATTITUDE AND SCREENING OF LUNG CANCER AMONG MEN OF A.DH.DHANGETHI BETWEEN THE AGES 30 TO 50 YEARS

AHMED SHIHAN

A project submitted in partial fulfillment of the requirements for the degree of Bachelors in Primary Health Care

Faculty of Health Sciences

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Results: Statistical analysis shows 20.3% of the samples were 41 to 50 years age group contributed for the study. The majority of the participants were below secondary education level such as Basic literacy 32.9% and Primary 39.2% it includes 72.1% are below the secondary level education. The behavioral characteristic of the respondents proved that among 70.9% was smokers and 29.1% does not smoke. Additionally 20.3% of them consumed tobacco chewing betel nuts and leaves and 79.7% of people do not used. Based on the results 82.3% of the peoples say that quitting smoking reduces the risk of lung cancer and 17.7% does not agree. This was the positive indicator but, prevalence rate or tobacco consumption rates are very high in this community, this lead to have higher chance of lung cancer. However, 22.8% of the people agree the risk of asbestos for occurrence of lung cancer.

Keywords: Knowledge, Attitude, Screening awareness, Lung Cancer A.Dh.Dhangethi

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DECLARATION

Name: Ahmed Shihan

Student Number: 15108

I hereby declare that this project is the result of my own work, except for quotations and summaries which have been duly acknowledged.

Signature: **Date:** 2nd June 2014

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TABLE OF CONTENTS

UK- United Kingdom

CHAPTER 1

INTRODUCTION

1.1 Background to the study

This dissertation project is about knowledge, Attitude and Screening awareness of lung cancer among men of A.Dh.Dhangethi between the ages of 30 to 50 years. The main purpose of this dissertation is to identify the awareness level of the local community and to help improve current situations regarding lung cancer. Cancer is one of the major disease concerns in A.Dh.Dhangethi. This includes lung cancer cervical cancer, intestinal cancer and oral cancer.

The exchange of gases between the air we breathe and blood is the principle function of the lungs. The lungs help to removed carbon dioxide from the bloodstream and oxygen from inspired air enters the bloodstream (Melissa Conrad Stoppler, 2008). The left lung is divided into two lobes, a small structure called the lingula that is the equivalent of the middle lobe on the right while the right lung has divided into three lobes (Melissa Conrad Stoppler, 2008). The trachea is the major airway entering vessel to the bronchi. The branches of bronchi gradually smaller airways call bronchioles that end in tiny sacs called as alveoli (Melissa Conrad Stoppler, 2008). The pleura are a thin layer that covered the chest wall and the lungs (Melissa Conrad Stoppler, 2008).

Lung cancers can occur in any part of the lung, however 90% to 95% of cancers of the lung occurs from the epithelial cells, the cells lining the larger and smaller airways (bronchi and bronchioles) therefore lung cancers are occasionally called bronchogenic cancers or bronchogenic carcinomas (Melissa Conrad Stoppler, 2008). Cancers also can occur from the pleura (called mesotheliomas) or rarely from supporting tissues like the blood vessels within the lungs (Melissa Conrad Stoppler, 2008).

Lung cancer is the leading cause of cancer-related mortality worldwide, with nearly 1.4 million deaths each year and 1.6 million new cases of lung cancer diagnosed each year, approximately 220,000 people are diagnosed in the United States (Suresh S. Ramalingam MD, Taofeek K. Owonikoko MD,PHD and Fadlo R. Khuri MD, 2011). There has been an overall decrease in the incidence of lung cancer in men, although in women this trend has only been noted very recently in the United States. In comparison to many parts of the world the number of cases and deaths related to lung cancer is significantly increasing globally (Suresh S. Ramalingam MD, Taofeek K. Owonikoko MD,PHD and Fadlo R. Khuri MD, 2011). This condition and diagnosis are increasingly high in elderly people and median age population among the countries (Suresh S. Ramalingam MD, Taofeek K. Owonikoko MD,PHD and Fadlo R. Khuri MD, 2011). Lack of early diagnosis of lung cancer leads to high mortality rates of this disease. Therefore early detection helps to succeed preventive and curative goal and large number of patient diagnosed with the diseases are often unsuitable for curative surgical procedures due to associated medical illness (Suresh S. Ramalingam MD, Taofeek K. Owonikoko MD,PHD and Fadlo R. Khuri MD, 2011).

Non-small cell lung cancer (NSCLC) consists of nearly 85% of the lung cancer which includes adenocarcinoma, squamous cell carcinoma, large cell carcinoma, and bronchioloalveolar carcinoma. However most common etiological factors of lung cancer are cigarette smoking, among which the non-smokers diagnosed with lung cancer has recently increased (Suresh S. Ramalingam MD, Taofeek K. Owonikoko MD,PHD and Fadlo R. Khuri MD, 2011). Although positive behavior and attitude of smoking reduction in the general population cannot reduce the burden of lung cancer for the next generation, with the reduction of cigarette smoking decreases the small cell lung cancer (SCLC) in recent years (Suresh S. Ramalingam MD, Taofeek K. Owonikoko MD,PHD and Fadlo R. Khuri MD, 2011).

According to WHO (2012), cancer is a leading cause of death worldwide, accounting for 8.2 million deaths and 1.5 million deaths are lung cancer. The report shows that 30% of cancer deaths are due to the five leading behavioral and food consumption, that is high body mass index, low fruit and vegetable intake, lack of physical activity and tobacco use (WHO, 2012). However Tobacco use is the most important risk factor for cancer causing over 20% of global cancer deaths and about 70% of global lung cancer deaths (WHO, 2012).

Cancer situation of the south Asian countries (Pakistan, India, Sri Lanka, Bangladesh, Nepal and Bhutan) shows that among more than 1,500 million peoples those with Oral and Lung cancer is first or second leading cancer in this region (SIRO Clinpharm Pvt. Ltd, 2013). According to SIRO Clinpharm(2013), a quarter of the

cigarette or “beedi” smokers in India would be killed by tobacco between the ages of 25-69 years, losing 20 years of life expectancy”. Besides 15% of the lung cancer causes non smokers such as genetic factors, radon gas, asbestos, pesticides and air pollution that which passive and static smoking (SIRO Clinpharm Pvt. Ltd, 2013).

1.2 Problem Statement

According to South Asian Journal of Cancer (2012), 200 new cancer cases are found every year, also five year adult cancer prevalence rate were 600 per thousand population and cancer prevalence proportion were 261 per hundred thousand population (South Asian Journal of Cancer, 2012).

There are several factors that may cause lung cancer in Maldives, such as environmental factors, occupational influences and personal factors which include fiber glass boat building, carpentry work, eating behavior of the people and high prevalence of passive or active use of tobacco and cigarette smoking.

1.3 Objectives of the Study

General Objective: This study is to assess the awareness level of the community on lung cancer in A.Dh.Dhangethi population.

Specific Objective of the study is:

1- To assess the knowledge on lung cancer among the study population

2- Identify risk factors of lung cancer in Dhangethi population

3- To evaluate which risk factors are most commonly present in Dhangethi

4- Identify preventive factors which can lead to lung cancer

1.4 Research Question

What is the magnitude of knowledge, attitude and screening of lung cancer among men of A.Dh.Dhangethi between the ages 30 to 50 years?

1.5 Significance of the Study

Lung cancer is a global burden of disease as well as developing diseases condition in Maldives, it is important to identify contributing factors to lung cancer in the country and the local community. These factors may be lack of knowledge, attitude and screening awareness on lung cancer among men of Dhangethi. However behavioral and environmental changes occur frequently, the effects are wrong or right, these changes may tend to non communicable disease and cancer.

This study may help to determine the extent of knowledge, attitude and screening of men between the ages of 30 to 50 years in A.Dh.Dhangethi. Findings of the study could serve island council to focus on local determinants that they need to improve.

1.6 Scope of the Study

This study was conduct in A.Dh.Dhangethi. The knowledge, attitude and screening information were collected through administrated questionnaire. The questioner was targeted to men between the ages of 30 to 50 years.

1.7 Definitions of Terms

Age refers to the age of the respondent at the time of the interview and all participants are 30 to 50 years

Gender covers number of male

Education refers to the level of education of the respondent and it is classified into two groups below secondary and above secondary education

Smoking refers to inhalation of tobacco by burning cigarette

Lung Cancer refers to a lung tumor characterized by uncontrolled cell growth in tissues of the lung.

Non-Smoker refers to a persons who does not smoke

Never-Smokers refers to a persons who never smok

CHAPTER 2

REVIEW OF LITERATURE

2.1 Introduction

Information for literature review was collected by using Hinari, Pubmed, Different Journals and web articles with the topic of knowledge, attitude and screening of lung cancer. Several articles identified were relevant to lung cancer, although knowledge, attitude and screening of lung cancer awareness were less in number. Still no article was found regarding perspective of Maldives on knowledge, attitude and screening on lung cancer. This literature review was mainly addressed by knowledge, attitude and screening on lung cancer among situation of the world, region and Maldives.

2.2 Theoretical Framework

The theory of social learning was proposed by Miller and Dollard in 1941. The social learning theory with the principles of observational learning and different reinforcement introduce in 1963 by Bandura and Walters (F.Pajares, 2001). Bandura proves that the traditional learning theory used for understanding theory and he introduce concept of self-efficiency in 1977 (F.Pajares, 2001).

The social cognitive theory (SCT) provides the understanding of emotional and behavioral change, the second concept provides conducts of new behavioral research in health education and the lastly provides moral and psychological understanding

(F.Pajares,2001).Additionally social cognitive theory (SCT) is health communication relevant theory (F.Pajares, 2001).

Social cognitive theory (SGT) behavioral evaluations depend on the environmental factors, people or personal factors and behavioral factors (F.Pajares, 2001).

Environmental factors refer to effect of personal behaviors. This includes social aspects like family members, friends, colleagues and physical environment is the size of a room, the ambient temperature or the availability of certain foods (Nadir, 2012).

The best articulated cognitive formulation of social learning theory was Social Cognitive Theory (SCT) by Albert Bandura (Karen Glanz, 2009). This theory explains human behavior in terms of three dynamic models or continues flow of personal factors, environmental factors and behavioral factors (Karen Glanz, 2009).

Behavioral and emotional models of behavior change synthesizes concepts and processes of Social Cognitive Theory (SCT), therefore counseling interventions for prevention and management of diseases is willingly to apply (Karen Glanz, 2009).

Karan Glanz says that (Karen Glanz, 2009) a basic premise of SCT is that people learn not only through their own experiences, but also by observing the actions of others and the results of those actions.

Observational Learning, Reinforcement, Self-Control and Self –Efficiency are relevant to health behavior change interventions of the Social Cognitive Theory (SCT) (Karen Glanz, 2009).

Social Cognitive Theory

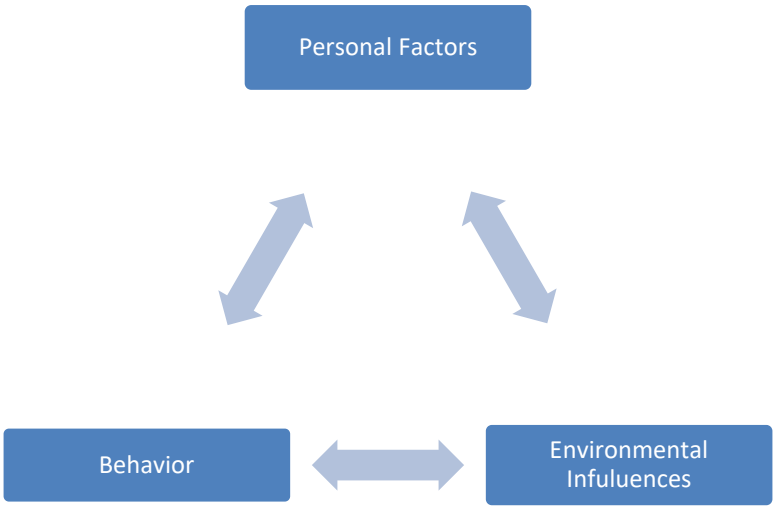


Figure: 1.1, Social Cognitive Theory

Source: Albert Bandura**,** *social foundations of thought & action:a social cognitive theory, 1st Edition, ©1986* (Karen Glanz, 2009).

2.3 Previous Studies

The aging and growth of world population increases the global burden of cancer, along with adaptation of high cancer causing behaviors, attitudes in economically developed and developing countries. Ahmedin at al (2011), states that about 12.7 million cancer cases and 7.6 million cancer deaths are estimated to have occurred in 2008 worldwide which that 56% of the cases and 64% of the deaths in the economically developing world, moreover lung cancer in males are the most frequently diagnosed cancers and the leading cause of cancer death for

males in economically developed and developing countries. Incidence rate of the lung cancer is 17% and 23% of the total cancer deaths are in economically developing countries. Therefore the number of cancer survival rate reduced in developing countries, most likely because of a late stage at diagnosis, limited access to timely and appropriate treatment to the patients (Ahmedin Jemal DVM, 2011).

The application of obtainable cancer preventable knowledge and programs implement for tobacco control, health promoting programs including promotion of physical activity and reduced intake of unhealthy diet or foods, as well implementation of early detection and proper treatment programs could be help prevent the global burden of cancer. However government, policy makers, curative health professionals and public health professional have huge responsibility to control the accelerating global cancer burden (Ahmedin Jemal DVM, 2011).

According to J P Mackenbach at al (2000), proved that the lower educated group has higher prevalence rate of smoking among man on Sweden, Norway, Great Britain and France and this was repeated in older age men on Great Britain and Norway (Mackenbach, 2000). It is also there was higher chance of quitting smoking easily reduced in educated group, other than lower educated community (Mackenbach, 2000).

Lung cancer mortality rates in United States was the leading causes, with more than 213,000 cases expected to be diagnosed in 2007 and more than 160,000 deaths per year (James G. Ravenel, 2008). Lung cancer deaths are more

in comparison to other cancer such as breast cancer, prostate cancer, colon cancer and ovarian cancer per year. Although 85% of the cases of lung cancer occurs due smoking, this shows major risk factor of lung cancer causing agent were smoking cigarettes in developed countries (James G. Ravenel, 2008). It is important to reduce tobacco consumption to decrease the lung cancer development and this study shows up to 50% of the lung cancer were diagnosed cases are previous smokers (James G. Ravenel, 2008). Lung cancer remains the challenging obstacles for health care system, with the burden of lung cancer annual estimated treatment cost was up to $21,000 per patients and this costs increases up to $47,000 par patients for those who do not undergo 1 year in United States of America (James G. Ravenel, 2008). The treatment cost of lung cancer was in United States of America in 2004 were estimated as $9.6 billion and most of the lung cancer cases were diagnosed at last stage of the disease, eventually the cost of the treatment and purpose of the treatment is based on to increase the rate of survival (James G. Ravenel, 2008). The survival rate of lung cancer for stage three is approximately 17% and there are almost no survivors for long term treatment among those diagnosed with stage four of lung cancer (James G. Ravenel, 2008).

Annually Lung cancer is the most commonly diagnosed cancer since 1985 (Noronha V, 2012). There are estimated 1.61 million new cases of cancer globally in every year, with that lung cancer mortality rate are 1.38 million deaths and this was a leading cause of deaths globally (Noronha V, 2012). Lung cancer estimated

cases in India approximately 63,000new new case every year (Noronha V, 2012). Consumption Tobacco is a major risk factor for Lung cancer and lung cancer is frequently label as smoker's disease. On the other hand a large number of patients with lung cancer do not have significance history of lung cancer. According to Indian Journal of Cancer says that "In a study of 975 patients with non-small-cell lung cancer (NSCLC) from Singapore, 31.5% of males and 68.5% of female patients were never-smokers, overall accounting for 32.4% of lung cancer patients" (Noronha V, 2012). However the large number of lung cancer patient in India is Non-smokers compared to the West and the global trend of adenocarcinoma are increasingly similar in India. Therefore risk factors for Non-smoker must require further investigation (Noronha V, 2012).

Lung cancer in Non-smokers shows a gender bias occurred more frequent among women (Noronha V, 2012). In Asian women diagnosed with higher proportion of lung cancer are caused by never smokers (Noronha V, 2012). Although all the major forms of lung cancer related to smoking on both proximal and distal airways is increasing adenocacinoma histology (Noronha V, 2012). This research show that the consumption of tobacco is comparatively weak carcinogen and there is small confirmation to express a part in causing for non smokers to lung cancer. There are various risk factors that can relatively more occurrence of lung cancer due to environmental, hormonal, genetic and viral have been implicated in the pathogenesis of lung cancer in never-smokers and no distinct etiologic factor (Noronha V, 2012). According to this research (Noronha V, 2012) show that the Molecular studies, in particular of the TP53, KRAS and

epidermal growth factor receptor (EGFR) genes, demonstrate strikingly different mutation patterns and frequencies between lung cancers in never-smokers and smokers and Major gender, clinico-pathological, and molecular differences in lung cancers arising in never-smokers strongly suggest a disease distinct from the more common tobacco-associated forms of lung cancer (Noronha V, 2012). Non-smokers with tobacco related lung cancer represent biologically advanced diseases regularly at younger age and adults (Noronha V, 2012).

The research result of Noronha.V et al (2012), will help to increase the understanding of difference between newer smokers and smokers with non small cell lung cancer in condition of patient, disease and treatment characteristics. This understanding helps to identify the major causes of lung cancers and diagnosed different types of arising in non smokers and this help to expend strategies for successful preventive programs that increases early diagnosis and appropriate treatments (Noronha V, 2012).

The total population of more than 1,500 million peoples has suffered chronic disease in south Asian countries such as Pakistan, India, Sri Lanka, Bangladesh, Nepal and Bhutan (Malcolm A Moore, 2010). Even though huge diversity of disease burden occurs across the region, including chronic diseases and increases the risk of cancer. Cancer is the major dilemma which includes common similarities in the patterns of prevalence (Noronha V, 2012). According to Noronha A Moore et al. (2010) among males, oral and lung cancer are either number one or two, depending on the registry, with the exceptions of Quetta in the far north, Larkana and Chennai. Moderately high numbers of Pharyngeal

and/or laryngeal cancer are also consistently observed, with prostate cancer now becoming visible in the more developed cities" (Malcolm A Moore, 2010). However the breast cancer and the cervical cancers are first two cancer burdens except in Pakistan Muslims, wherever oral cancer usually follows breast cancer (Malcolm A Moore, 2010). The five most common type of cancer is ovarian cancer and the overall burden of cancer becomes noticeably increased over time. This condition contributes because of the increasing over weight, obesity, aging population and environmental factors of the countries. Therefore, South Asian countries organized coordination activities for cancer at high priority level including country, government and city levels (Malcolm A Moore, 2010).

Exposed asbestos are risk factors of the peoples at their occupational, environmental and homes, such tiny fiber asbestos products contaminated air. This contaminated asbestos air inhalation may blocked respiratory sec of a lungs for a long time and this may cause accumulation of fluids, scars and inflammation of the lungs which these effects may cause lung damage and chronic infection leads to serious health problems which clinically untreated or recover (National Cancer Institiute, 2009).

A substance that causes cancer is known as asbestos or human carcinogen and asbestos is mainly risk factors for causing lung cancer or respiratory infections (National Cancer Institiute, 2009). The exposure to asbestos increases the risk of lung cancer and the development of chest wall and abdomen cancer (National Cancer Institiute, 2009).

Air pollution increase the risk of lung cancer among man that they are living in a rural city. This recognized that the certain types of occupation might causes lung cancer encountered chemicals such as asbestos, dusts, fiber, and resin (Witschi, 2001).

The combination of asbestos and smoking exposure leads to chronic diseases and lung cancer. Therefore the combination of these two risk factors increases the risk of individual exposure of asbestos or smoking and combination increases severity of the conditions (National Cancer Institiute, 2009). Based on National Cancer Institute (2009) reports that quitting smoking reduces the risk of lung cancer which the workers who exposed to asbestos (National Cancer Institiute, 2009). However exposure to smoking and asbestos are increase the risk developing lung cancer. Therefore exposure to asbestos on their life time during occupational, environmental factors suspected that they may developed respiratory disease or cancer (National Cancer Institiute, 2009).

Passive and use of tobacco increases the risk of lung cancer which is clinically proven, physically unstoppable burden of risky behavior occurs that the estimates 1.6 million deaths per year globally. These deaths may preventable while decreasing the consumption of tobacco and risky behaviors (Brawley, 2011). Many economically developed countries are reduced consumption of tobacco recently, on the other hands this habits become huge burden for developing countries such as Maldives. According to Brawley, O.W.(2011), reported that this “century, about 80% of the 1.3 billion current smokers worldwide live in developing and poor income countries, with over 300 million in

China alone" (Brawley, 2011). Among these countries smoking population was extremely younger, it is helpful to control and reducing consumption of tobacco may reduce the risk of lung cancer, lung and respiratory diseases (Brawley, 2011). Who quitting smoke before the age of 30 to 50 years prevent and control the majority of the risk factors that reduces long delay of developing smoking related diseases and conditions (Brawley, 2011).

The cohorts study shows that the Japanese males tend to begin smoking later in life than the males in United States. Therefore occurrence of lower lung cancer mortality rate is more frequent in Japanese males than having higher prevalence of adulthood smoking related disease (Ikuko Funatogawa, 2013). According to Japanese birth cohorts on 1900 to 1945 by Ikuko Funatogawa et al. (2013) reported that lower lung cancer mortality rates (> 100 deaths per 100 000 were only seen among men aged 60–64 years or older in Japan but were recorded in men 55–59 years of age or younger in the United States),similar or higher prevalence of smoking (> 78% in Japan but < 80% among white males in the United States) and rarer initiation of smoking before the age of 20 years (< 30% in Japan but > 50% among white males in the United States) (Ikuko Funatogawa, 2013). However consumption of tobacco and smoking among Japanese are very rear among children and adolescents younger than 15 years of age, on the other hand it is particularly common accounts for more than 10% within the male's population of United States and it is more than 20% common in other countries (Ikuko Funatogawa, 2013). Therefore the children and adolescents who starts

smoking before the age of 15 years has high risk for developing respiratory diseases or smoking related diseases (Ikuko Funatogawa, 2013).

The mortality rate of the lung cancer has been increased in men and women of Japan. However consumption of tobacco and smoking begin late stage of Japanese man, because men remain unexpectedly low given high prevalence of smoking. Additionally initial age of smoking has been decreasing for last four decades in both males and females. Sin the lung cancer is common in molder and middle age groups, this effects lung cancer prevalence rate of the specific age and risk factors trend were unchanged for recent years for this community (Ikuko Funatogawa, 2013).

The risk factors of lung cancer is increasingly high in those who exposed long time leg of smoking and onset of diseases and this factors increases the lung cancer incidences and mortality rates of a disease. Long term exposures to the risk are higher in male than the females (WHO, 2004). Therefore with the comparison of screening and smoking cessation are low valuable means of reduce mortality rates of the lung cancer because of the risk factors and risky behaviors are uncontrolled through involving screening programs (WHO, 2004). However lung cancer screening programs are broadly not conducted because of the financial and other expense for the programs. But it is important to implement large scale Computed Tomography (CT) screening programs for lung cancer to detect the early stage of the cancer and improve survival rate of the country (WHO, 2004).

According to world health organization (2004) the term “tobacco epidemic” is used to express the rapid development of tobacco associated

mortality from lung cancer, this term describes the characteristics connected to the level of economic development. (WHO, 2004). These characteristics shows that the developing countries are involved in tobacco epidemic first stage, this included increasing male lung cancer mortality influences lower levels of mortality on lung cancer (WHO, 2004). The second stage of tobacco epidemic involved more developed countries with the increasing rate of lung cancer mortality rate by both male and females (e.g. Australia) (WHO, 2004). The economically developed, rich resourced countries like United States of America (USA) and United Kingdom (UK) stand in tobacco epidemic stages four and five which included declining smoking on both man and women, but in men lung cancer mortality rates is reasonably fixed other than lung cancer mortality rates of the women are increasing, because of high levels tobacco consumption in earlier age of their life. (WHO, 2004).

CHAPTER 3
METHODOLOGY

3.1 Research Design

This research is designed to undertake a cross sectional study to assesses the knowledge, attitude and screening on lung cancer among man of A.Dh.Dhangethi between the age of 30 to 50 years of age. The study is mainly based on descriptive study and qualitative approach. The study was conducted in A.Dh.Dhangethi population, between 10 to 20th April 2014. This cross sectional study was focused on between the 30 to 50 year old men, who were willing to participate in this study. A questionnaire was filled with the help of trained enumerators, which helps to minimize data collection errors and identify personal, behavioral and environmental Influences which lead to lung cancer. Assessing the knowledge, attitude and screening status of the local people in A.DH.Dhangethi are the study factors of this study. The simple random sample was taken from the peoples of A.Dh.Dhangethi population between the ages of 30 to 50 years. Besides providing a written consent, a verbal consent was taken from participant and provides enough information for the study. To obtain information, a questioner was the tool used to collect focused information like occupational health, environmental influences risk to lung cancer, smoking and tobacco use, personal and family history of lung cancer and personal biography. The qualitative approach was used to collect information. The consent form and questionnaire used for data collection are attached in appendix A.

3.2 Population and Sample

The total population of A.Dh.Dhangethi is 1001(508 males 51% and 493 females49%). 63% (337males and 296females) of the population are adults. 3.5% (19 males and 16 females) of the population are above 65 years age group and 29% (158males and 134females) of the population are between 30 to 50 year of ages. However out of 158 males, 50% of the people participated in this research between the ages 30 to 50 years. The sample size of this study is 79 males, which was a randomly selected sample from A.Dh.Dhangethi population males aged between 30 to 50 years. The selected sample group included fishermen, carpenters, fiberglass workers, and government employees. The subjects were selected and a verbal consent was taken before collecting the data and informed about the purpose of the study.

3.2.1 Inclusion and Exclusion criteria

Sample population included people of A.Dh.Dhangeth, between the ages of 30 to 50 years males only. Sample population included smoking and non smoking people, fiber glasses workers, carpenters, fishermen, government staff and resort staff of A.Dh.Dhangethi. Additionally samples were taken from simple random selection of those who were volunteer people of the selected population of Dhangethi.

Disabled people, women and children, males aged less than 30 years and more than 50 years were excluded from this sample study. However chronic diseases conditions like cancer, tuberculosis patients were excluded from study sample.

3.3 Instrumentation

Instrumentation of the study was a self administered questionnaire, which included 16 different types of questions to collect information, such as personal, educational, occupational and environmental health.

The survey was conducted on 1st to 10th May 2014, in A.Dh.Dhangethi. Total selected population was 292 people which include 158 males and 134 females. However 50% of the male population was involved in this study.

As some questions were a bit sensitive in nature, same participants might not want to reveal their behavior the consents and assurance for confidentiality was repeatedly stated in the beginning and in all sections of the structure so that the respondents were convinced to provide their support to the maximum.

There were limitations on the study from conductor's side through data collection process. Total 80 samples were collected from islands and some questioners were sent to resorts nearby. However several people were working in the resorts and other jobs, and it was challenging to collect 50% sample of the study population.

3.3.1 Pre-Test

The questionnaire was administered to 10 peoples from A.Dh.Dhangethi, between the ages of 30 to 50 years.

The measurement of time it takes to complete the questionnaire was identified followed by briefing on the purpose of the study and debriefing after the completion of

questionnaire was carried out. Questions and queries that were raised by the participants during the time were considered in adjusting the questions rephrasing, response categories were revised. Especially rephrasing of questions in such a way that student can answer alone by simply reading the instruction and the meaning they got from each question was reassured so that it matches with the actual direction of each question and the questionnaire at a whole.

3.4 Data Collection Procedures

This process was conducted on A.Dh.Dhangethi at participant's work place or their homes. Throughout the process enumerators were ensured of participant confidentiality and security. Also before taking any information the written consent was taken and participants would have right to eliminate the study during any time of data collection. The consent form is attached in Appendix A. The enumerators ensured the participants right, time flexibility and all the data collected by with the help of trained staff. The questionnaire formed mainly on identifying Knowledge, Attitude and screening on lung cancer awareness between 30 to 50 years of males. The questionnaire is attached in the Appendix B.

3.5 Framework for Data Analysis

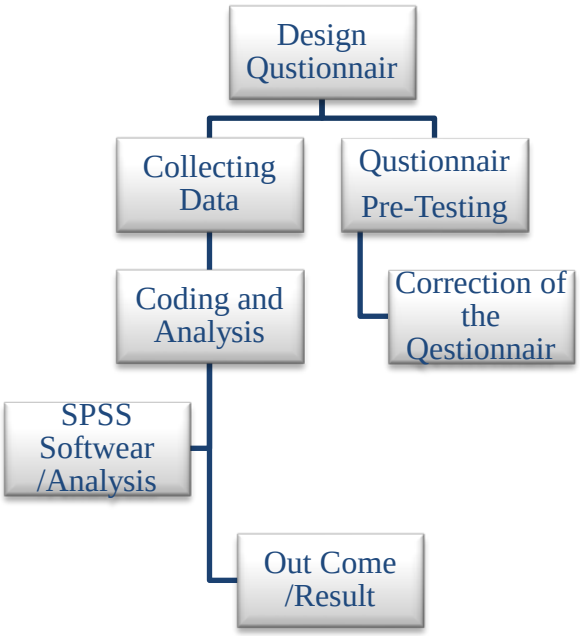


Figure: 3.1 Frameworks for Data Analysis

CHAPTER 4

DATA ANALYSIS AND RESULT

4.1 Description of Statistical Analysis

This cross sectional descriptive study was conducted in A.Dh.Dhangethi among males aged between 30 to 50 years. The study was done to assess knowledge, Attitude and Screening on lung cancer awareness among men in Dhangethi. Self-administered questionnaire was used to collect data. Random sampling was used in this study. A total population of selected group was 158 People, sample size was 79 people it includes 50% of the research group. The simple random sample was participated, number of population was 79 N=79. A statistical analysis of the data obtained and analyzed by using SPSS-21.

4.2 Descriptive Data Result

This cross sectional descriptive study was conducted in A.Dh.Dhangethi. The study is done to assess the knowledge, Attitude and Screening on lung cancer among men in Dhangethi. The data were collected from 1st May and 10th May 2014 including the nearby tourist resorts from which some people from Dhangethi worked. Self-administered 79 questionnaires were used to collect data. Random sampling was used in this study. The data was collected by 5 trained research enumerators. A total population

of selected group was 158 People, sample size was 79 people it includes 50% of the research group. Statistical analyses of the data obtained and analyzed by using SPSS-21.

4.2.1 Socio Demographic Characteristics

The following table (Table 4.1) shows the socio-demographic characteristics of the respondents. The adults were classified as 30 to 40 years and 41 to 50 years of age group. The 30 to 40 years age group showed 79.7% of participated while 20.3% of the samples were 41 to 50 years age group contributed for the study. The majority of the participants were below secondary education level such as Basic literacy 32.9% and Primary 39.2% it includes 72.1% are below the secondary level education.

Table: 4.1 Socio Demographic Characteristics

Variables	Number of samples N=79	Percentage (%)
Age		
30 to 40 years	63	79.7
41 to 50 years	16	20.3
Educational status		
Basic literacy	26	32.9
Primary	31	39.2
Secondary	4	5.1
Certificate	8	10.1
Diploma	7	8.9
Degree	1	1.3
Masters	2	2.5

4.2.2 Behavioral Characteristics

The behavioral characteristics of the respondents in table 4.2 proved among 70.9% is smokers and 29.1% does not smoke. Additionally, among them 20.3% of peoples consumed tobacco chewing betel nuts and leaves and 79.7% of people does not use it.

Table: 4.2 Behavioral Characteristics

Variables	Number of samples N=79	Percentage (%)
Smokers		
Yes	56	70.9
No	23	29.1
Tobacco Chewing with Betel Nuts and Leaves		
Yes	16	20.3
No	63	79.7

4.2.3 Knowledge Related Characteristics

The respondent's results on knowledge related showed that, among 11.4% of them have tested for lung cancer and 88.6% have not tested. Also 63.3% of people say that the following symptoms are common in advanced lung cancer such as breathing difficulty 5.1%, chronic cough 3.8% and blood while coughing 27.8%. However the awareness level on primary prevention on lung cancer status of both 25.3% of the peoples agree that the primary treatment was surgery and radiation, but majority of the peoples agree that the primary treatment was chemotherapy 35.4% and 13.9% of the peoples say antibiotic was the primary treatment for the lung cancer. Moreover, 57.0% say that the smoking is major risk factors for lung cancer, other than asbestosis 22.8%, tuberculosis (TB), Diet 2.5% and injury to the lungs 6.3% of the peoples. It is also 63.3% of the peoples say that

the smoking was the most applicable cause of lung cancer and 82.3% of the peoples agree that the quite smoking can reduces the risk of lung cancer. Therefore 34.2% of the peoples say that the scanning can help in the diagnosis of lung cancer other than the blood test 31.6%, X-ray 13.9% and biopsy 20.3%

Table: 4.3 Knowledge Related Characteristics

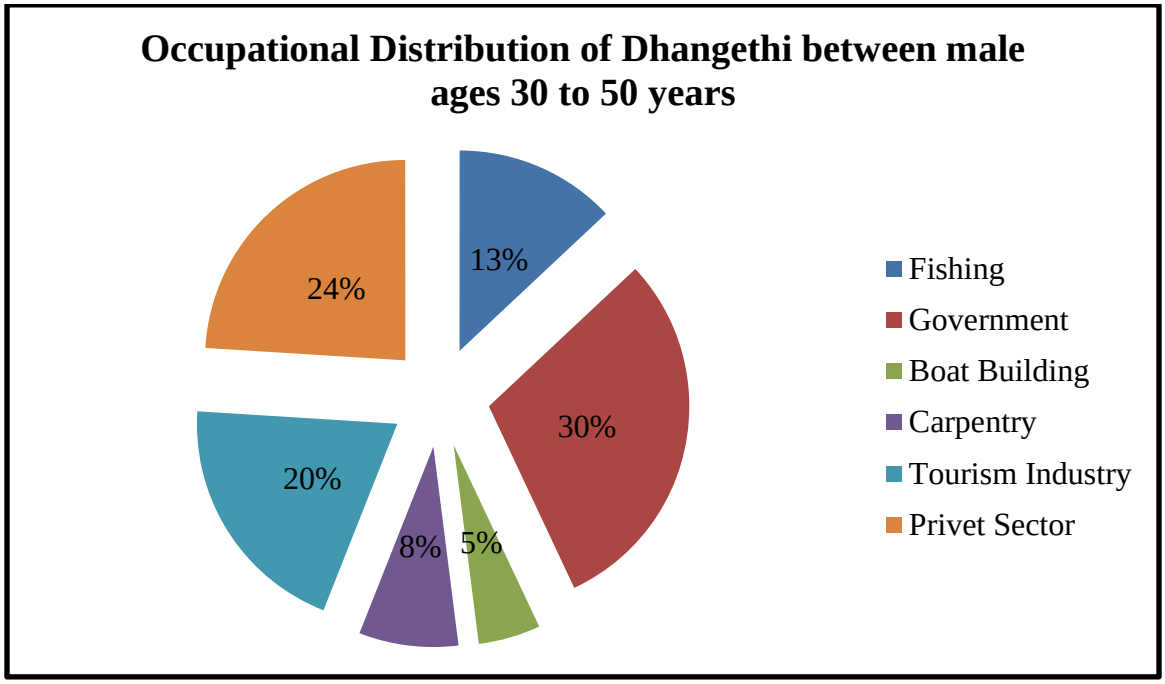
Variables	Number of samples N=79	Percentage (%)
Tested for Lung Cancer		
Yes	9	11.4
No	70	88.6
Common Symptoms of Advanced Lung Cancer are		
Breathing Difficulty	4	5.1
Chronic Cough	3	3.8
Blood with Coughing	22	27.8
All of the Above	50	63.3
Primary Treatment for Lung Cancer is		
Surgery	20	25.3
Radiation	20	25.3
Chemotherapy	28	35.4
Anti-biotic	11	13.9
Prioritized Risk Factors for Lung Cancer		
Asbestosis	18	22.8
Tuberculosis (TB)	9	11.4
Smoking	45	57.0
Unhealthy Eating Habits	2	2.5
Injury to Lungs	5	6.3
Quitting Smoking can Reduces Lung Cancer		
Yes	65	82.3
No	14	17.7
Most applicable Cause of Lung Cancer		
Genetics / Inheritance in the family	7	8.9
Unhealthy Eating Habits / Diet	5	6.3

Smoking	50	63.3
Air Pollution	5	6.3
Respiratory Infections (RI)	12	15.2
Test Need to Diagnosed Lung Cancer		
Blood Test	25	31.6
X-Ray	11	13.9
Scanning	27	34.2
Biopsy	16	20.3

4.2.4 Environmental Characteristics

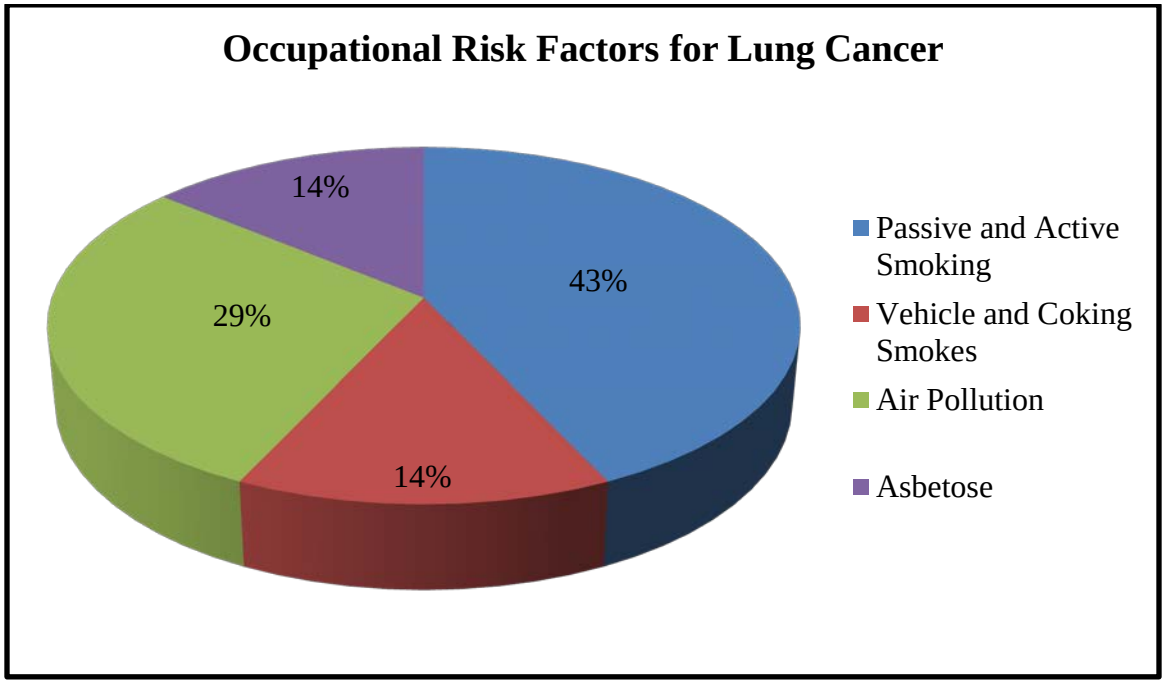
Occupational distributions of the people were fishing, government, boat building, carpentry, tourism industry, privet sector. Highest percentage were involved in government services, accounting to 30% of the sample,24% in the private sector and 20% in the tourism industry Fishing 13%, carpentry 8% and boat building had the minimum number of people. Therefore the major role in occupational involvement shares government and private sector such as private business, private boat operating (captain or crew of the boat) on this island. Figure 4.1 shows that the occupational distribution among the selected population of A.Dh.Dhangethi between the males ages of 30 to 50 years.

Figure 4.1 Occupational Distribution among selected population of A.Dh.Dhangethi males.



Occupational risk factors were different from one another, because of the environmental situations, behavioral factors of the people and social influences. Therefore four occupational risk factors measured in this study, which included the risk of passive and active smoking, vehicle and cooking smoke, air pollution and asbestos (fiber, resin and dust). The majority of the participants agree that the passive and active smoking was huge risk factors for lung cancer; accounting was 43% of the participants. Air pollution was the second largest 29% of the participants says this was the risk factors for them and 14% of the participant agrees that the asbestos, vehicle and cooking smokes was the risk factors lung cancer. Figure 4.2 shows that the occupational risk factors for lung cancer among male ages between 30 to 50 years on Dhangethi.

Figure 4.2 Occupational Influential Risk Factors for Lung cancer among men of A.Dh.Dhangethi.



CHAPTER 5

DISCUSSION AND CONCLUSION

5.1 Summary of Main Findings

The survey conducted on 1st to 10th May 2014, in A.Dh.Dhangethi with self administered questionnaire were used, which includes 16 different types of questions to collect information, such as personal, educational, occupational and environmental health. Therefore the main aim of this questioner was to understand awareness level on lung cancer among the people of Dhangethi. Also providing a written consent, a verbal consent was taken from participant and provides enough information for the study. Additionally to obtain information, a questioner was the tool used to collect focused information like occupational health, environmental influences risk to lung cancer, smoking and tobacco use, personal and family history of lung cancer and personal biography. The qualitative approach was used to collect information.

The study is mainly based on descriptive study and qualitative approach. The study was conducted in A.Dh.Dhangethi population, between 10 to 20th April 2014. This cross sectional study was focused on between the 30 to 50 year old men, who were willing to participate in this study and simple random sample included 50% (n=79)of the selected population in this island.

Sample population included smoking and non smoking people, fiber glasses workers, carpenters, fishermen, government staffs and resort staffs of A.Dh.Dhangethi. Additionally samples were taken from simple random selection of those who were volunteer people of the selected population of Dhangethi.

Disabled peoples, women and children, male aged less than 30 years and more than 50 years were excluded from this sample study. However chronic diseases conditions like cancer, tuberculosis patients were excluded from study sample.

5.2 Discussion

This cross sectional descriptive study was conducted in A.Dh.Dhangethi. The study is done to assess the knowledge, Attitude and Screening on lung cancer among men in Dhangethi. The data were collected from 1st May and 10th May 2014 including the nearby tourist resorts from which some people from Dhangethi worked. Self-administered 79 questionnaires were used to collect data. Random sampling was used in this study. The data was collected by 5 trained research enumerators. A total population of selected group was 158 People, sample size was 79 people it includes 50% of the research group. Statistical analysis of the data obtained and analyzed by using SPSS-21.

Statistical analysis shows that the 30 to 40 years of age group are 79.7% of participated population, while 20.3% of the samples were 41 to 50 years age group contributed for the study. The majority of the participants were below secondary education level such as Basic literacy 32.9% and Primary 39.2% it includes 72.1% are below the secondary level education. Therefore several studies show lower educational level and lower socio economic standards leads to increase the use of

tobacco, according to J P Mackenbach at al (2000), the lower educated group has higher prevalence rate of smoking among man on Sweden, Norway, Great Britain and France and this was repeated in older age men on Great Britain and Norway (Mackenbach, 2000). Additionally lower educational group, decreases awareness level on infectious diseases and this may lead to caused infectious diseases such as Tuberculosis (TB), respiratory infections, HIV/AIDs and cancer.

This study shows in table 4.2 the behavioral characteristic of the respondents proved that among 70.9% was smokers and 29.1% does not smoke. Additionally, among them 20.3% of peoples consumed tobacco chewing betel nuts and leaves and 79.7% of people does not used. These results indicate there is high prevalence rates of smoking with few people are chewing tobacco with betel nuts and leaves. Although 85% of the cases of lung cancer occurs due smoking, this shows major risk factor of lung cancer causing agent were smoking cigarettes in developed countries (James G. Ravenel, 2008). It is important to reduce tobacco consumption to decrease the lung cancer development and it shows up to 50% of the lung cancer were diagnosed cases are previous smokers (James G. Ravenel, 2008).

Lung cancer estimated cases in India approximately 63,000new new case every year. Therefore consumption tobacco is a major risk factor for Lung cancer and lung cancer is frequently label as smoker's disease (Noronha V, 2012).

Additionally, the combination of asbestos and smoking exposure leads to chronic diseases and lung cancer. Therefore the combination of these two risk factors increases the risk of individual exposure of asbestos or smoking and combination increases severity of the conditions (National Cancer Institiute, 2009).

Based on National Cancer Institute (2009) reports that quitting smoking reduces the risk of lung cancer which the workers who exposed to asbestos (National Cancer Institiute, 2009). However exposure to smoking and asbestos are increase the risk developing lung cancer. Therefore exposure to asbestos on their life time during occupational, environmental factors suspected that they may developed respiratory disease or cancer (National Cancer Institiute, 2009).

Passive and use of tobacco increases the risk of lung cancer which is clinically proven, physically unstoppable burden of risky behavior occurs that the estimates 1.6 million deaths per year globally. These deaths may preventable while decreasing the consumption of tobacco and risky behaviors (Brawley, 2011). Many economically developed countries are reduced consumption of tobacco recently, on the other hands this habits become huge burden for developing countries such as Maldives. According to Brawley, O.W (2011), reported that this "century, about 80% of the 1.3 billion current smokers worldwide live in developing and poor income countries, with over 300 million in China alone" (Brawley, 2011). Among these countries smoking population was extremely younger, it is helpful to control and reducing consumption of tobacco may reduce the risk of lung cancer, lung and respiratory diseases (Brawley, 2011).

The risk factors of lung cancer is increasingly high in those who exposed long time leg of smoking and onset of diseases and this factors increases the lung cancer incidences and mortality rates of a disease. Long term exposures to the risk are higher in male than the females (WHO, 2004). Therefore with the comparison of screening and smoking cessation are low valuable means of reduce mortality rates of

the lung cancer because of the risk factors and risky behaviors are uncontrolled through involving screening programs (WHO, 2004). However lung cancer screening programs are broadly not conducted because of the financial and other expense for the programs. But it is important to implement large scale Computed Tomography (CT) screening programs for lung cancer to detect the early stage of the cancer and improve survival rate of the country (WHO, 2004).

According to world health organization (2004) reported that the term "tobacco epidemic" is used to express the rapid development of tobacco associated mortality from lung cancer, this term describes the characteristics connected to the level of economic development. (WHO, 2004). These characteristics shows that the developing countries are involved in tobacco epidemic first stage, this included increasing male lung cancer mortality influences lower levels of mortality on lung cancer (WHO, 2004).

Therefore the result of this research shows most applicable means of risk factor for lung cancer was passive and active smoking. It involved the contributing factors such as exposure to asbestos, air pollution and infectious diseases. Based on the results 82.3% of the peoples say that quitting smoking reduces the risk of lung cancer and 17.7% does not agree. This was the positive indicator but, prevalence rate or tobacco consumption rates are very high in this community, this lead to have higher chance of lung cancer.

However table 4.3 results shows that 22.8% of the people agree the risk of asbestos for occurrence of lung cancer. Therefore National Cancer Institute (NCI,2009) research shows that the exposed asbestos are risk factors of the people

at their occupational, environmental and homes, such tiny fiber asbestos products which can contaminate the air. This contaminated asbestos air inhalation may block respiratory sac of a lungs for a long time and this may cause accumulation of fluids, scars and inflammation of the lungs which these effects may cause lung damage and chronic infection leads to serious health problems which clinically untreated or recover (National Cancer Institiute, 2009).

A substance that causes cancer is known as asbestos or human carcinogen and asbestos is mainly risk factors for causing lung cancer or respiratory infections, (National Cancer Institiute, 2009). The exposure to asbestos increases the risk of lung cancer and the development of chest wall and abdomen cancer (National Cancer Institiute, 2009).

Finally it shows poor knowledge on air pollution related lung cancer. The table 4.3 shows that only 5people (6.3%) agree air pollution causes lung cancer. According to wischi et al (2001) reported that air pollution increase the risk of lung cancer among man that they are living in a rural city. This recognized that the certain types of occupation might causes lung cancer encountered chemicals such as asbestos, dusts, fiber, and resin (Witschi, 2001).

5.3 Implications

This study results suggest that health promotion, health screening, attitude and behavioral changes of individual were compulsory to their health. The key risk

factors for lung cancer was (smoking, infectious diseases, asbestos, unhealthy diet, air pollution and smoke from vehicles or cooking fumes) are observed in this research. It is important to implement preventive measures to reduce the burden of lung cancer. This study can be used as evidence for taking relevant interventions to reduce the lung cancer. The cessation of smoking, tobacco chewing would reduce the risk and unwanted effects to the heath. It is important to control the use of tobacco, spread of infectious diseases, unhealthy diet, air pollution and exposure to asbestos to minimize the future burden of lung cancer and other diseases.

5.4 Limitations of the study

This study is mainly based on the population of A.Dh.Dhangethi among the ages between 30 to 50 year old men. There are several limitations during this study period. One of the challenging limitations was accessibility of participants. However 30 to 50 year old men are active working population in the island, they were working in different industries such as government, fishing, boat building and tourism. The lack of time and budget limitation was also other obstacles in the study. Due to time limitation and budget enumerator, some of the questionnaires were sent to nearby resorts for collecting selected group sample. However to reduce the bias and error the population size was increased up to 50% of the selected group and the trained enumerators helped to fill the questioners by clarifying the importance of this study to A.Dh.Dhangethi.

5.5 Direction for Future Research

The facing intervention can be designed to tackle the lung cancer and knowledge, attitude and screening disparities effecting men of A.Dh.Dhangethi community and there need to be a better understanding on contributing factors of lung cancer. Targeted research group was men of Dhangethi between the ages of 30 to 50 years and typically identified awareness levels on the community. Therefore in future it is important to understand all independent variables in this research. These factors could help in understanding all the social factors, environmental factors and personal factors. This identification helps in early diagnosis, prevention and can aid in providing appropriate treatment for lung cancer.

Additionally the research intervention highlighted in the literature expressed a sociocultural factor that leads to lung cancer. Even though the findings of this study are preliminary, they could be used to pilot an intervention aimed at exploring specific socio-cultural variables that were statistically significantly related with lung cancer screening target.

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APPENDIX

APPENDIX A

Consent Form of the participants

I, …… …… (Participant's name and age), understand that I am being asked to participate in this study activities and questionnaire has been designed to gather information about the following subjects or topics:

1. Personal Educational Information
2. Environmental Health
3. Occupational Health
4. Past and present history of illness on participant and the family

I have been given some general information about this study and the types of questions I can expect to answer. The researcher provided me, the necessary information about this research.

I understand that my participation in this study is completely voluntary and that I am free to decline to participate, without consequence, at any time prior to or at any point during the activity. I understand that any information I provide will be kept confidential, used only for the purposes of completing this assignment, and will not be used in any way that can identify me. All questionnaire responses, notes, and records will be kept in a secured environment.

I understand that the results of this activity will be used exclusively in the below-named student's course work. I have objection if my data is used in any form with secrecy. I also understand that there are no risks involved in participating in this activity.

I have read the information above. By signing below and returning this form, I am consenting to participate in this project as designed by the below named Maldives National University Student.

Participant name: …….

Signature: …….

Date: …….

Please keep a copy with you; if you want to contact me you will be most welcome.

Student name: Ahmed Shihan **Student Id:** 000015108

Telephone number: +9609656333 email address: shihan5442@live.com

Thank you for agreeing to participate in my project.

APPENDIX B

بسم الله الرحمن الرحيم

Questionnaire
Lung Cancer Knowledge, Attitude and Screening
Health Research

This questionnaire is used for collecting information on lung cancer. Data collected will be used for academic research purpose only.

Name (Optional):……...…….…… Form filled date:…../ ……

Date of birth: …… / ……. / …… Age: ☐

1. Please mark the highest education status completed:

Basic Literacy ☐ Primary ☐ Secondary ☐ Certificate ☐

Diploma ☐ Degree ☐ Masters ☐

2. What kind of work you do as a source of income?

☐ a. Fishing

☐ b. Farming

☐ c. Office work

☐ d. Boat building (Wood, Fiber)

☐ e. Carpentry

☐ f. Tourism Industries

☐ g. Other, Specify……

3. What are the risk factors of lung cancer on your current job?

☐ a. Passive and Active smoking
☐ b. Vehicle and cooking smokes
☐ c. Air pollution
☐ d. Asbestose, fibre, resin

4. Quitting smoking can reduce the risk of lung cancer?

☐ a. Yes
☐ b. No

5. What can diagnose cancer?

☐ a. Blood test
☐ b. X-Ray
☐ c. Scanning
☐ d. Biopsy

6. Can lung cancer be identified by screening?

☐ a. Yes
☐ b. No

7. Did you tested for lung cancer?

☐ a. Yes
☐ b. No

8. Common symptoms of advanced lung cancer are?

☐ a. Breathing difficulty
☐ b. Chronic cough
☐ c. Blood while coughing
☐ d. All of the above

9. The primary treatment for lung cancer is?

- ☐ a. Surgery
- ☐ b. Radiation
- ☐ c. Chemotherapy
- ☐ d. Anti-biotic

10. In terms of cancer related deaths worldwide, where does lung cancer rank?

- ☐ a. First
- ☐ b. Second
- ☐ c. Third
- ☐ d. Forth

11. Are you a smoker?

- ☐ a. Yes
- ☐ b. No

12. Do you chew tobacco leaves with betel nut?

- ☐ a. Yes
- ☐ b. No

13. Do you have any family member with lung cancer?

- ☐ a. Yes
- ☐ b. No

14. Some risk factors for lung cancer are below, please prioritize from most common reason to least?

- ☐ a. Asbestosis
- ☐ b. Tuberculosis (TB)
- ☐ c. Smoking
- ☐ d. Unhealthy eating habits
- ☐ e. Injury to lungs

15. What do you believe is the main cause of lung cancer? Arrange from most applicable to least by 1-6.

- ☐ a. Genetics / inheritance in the family
- ☐ b. Unhealthy eating habits / Diet
- ☐ c. Smoking
- ☐ d. Lack of exercise
- ☐ e. Air pollution
- ☐ f. Respiratory infections / Diseases

16. What are the preventive measures that you are using in the work site?

- ☐ a. Mask
- ☐ b. Gloves
- ☐ c. Body shoot
- ☐ d. Safety shoes
- ☐ e. Not using any method

Thank you for your precious time!

APPENDIX C

بسم الله الرحمن الرحيم

ދިވެހިރާއްޖެ ތަރައްގީ ފަންޏުވެރިންގެ ތަނަވަސް ތަފާތު ދާއިރާ ތަކުގެ ގޮތުގައި

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3. ތަކެއްގެ ފަރާތުގެ ފާފުކުރުން
4. ސިއްރު ފުށުގައިވާ ތަކެއް (ދިވެހިންގެ ތަފާތުކުރުމުގެ ގޮތުގައި ތަތަ ވާ)

ދިވެހިންނަށް ކުރިއަށް ގެންދާ، ދިވެހިންގެ ދަފާތު ތަފާތު ގުރާ ތަކެއް ކުރުމުގެ ގޮތުގައި ދަތުރުކުރުން ދިވެހިންނަށް ކުރިއަށް ގެންދާ ކުރިއަށް ގެންދާ ދިވެހިންގެ ދަތުރުކުރުން، ދިވެހިންނަށް ކުރިއަށް ގެންދާ ގުރާ ގަތުގައި ދިވެހިންގެ ދަތުރުކުރުން ދިވެހިންނަށް ދިވެހިންގެ ދަތުރުކުރުން.

ދ ދިވެހިންގެ ތަފާތު ގުދަށ ގުދަށ ގުދަށ، ދިވެހިންގެ ދަތުރުކުރުން ގުދަށ ގުދަށ ގުދަށ ދަތުރުކުރުން ދިވެހިންގެ ދަތުރުކުރުން ދިވެހިންގެ ދަތުރުކުރުން ދިވެހިންގެ ދަތުރުކުރުން ދިވެހިންގެ ދަތުރުކުރުން ދިވެހިންގެ ދަތުރުކުރުން.

ދިވެހިންގެ ދަތުރުކުރުން ދިވެހިންގެ ދަތުރުކުރުން ދިވެހިންގެ ދަތުރުކުރުން ދިވެހިންގެ ދަތުރުކުރުން ދިވެހިންގެ ދަތުރުކުރުން ދިވެހިންގެ ދަތުރުކުރުން ދިވެހިންގެ ދަތުރުކުރުން ދިވެހިންގެ ދަތުރުކުރުން ދިވެހިންގެ ދަތުރުކުރުން.

މިދިރާސާއާއި ގުޅޭގޮތުން އެއްވެސް މައުލޫމާތެއް އޮޅުންފިލުވަން ބޭނުންވެއްޖެނަމަ، މިދިރާސާ ކުރިއަށް ގެންދާ ފަރާތް ކަމުގައިވާ، އަލްފާޟިލް އަހްމަދު ޝިފާން އާއި ގުޅަން ބޭނުންވެއްޖެ ހިނދެއްގައި(9656333) ނަމްބަރާއި ގުޅޭނެކަމުގެ ފުރިހަމަ ޔަޤީންކަން ދީފައިވެއެވެ.

ވީމާ މިދިރާސާއަށް ދެވޭ މައުލޫމާތުތައް ބޭނުން ކުރުމުގެ ފުރިހަމަ އިޚްތިޔާރު، ދިރާސާ ކުރާފަރާތަށް ލިބިގެންވެއެވެ. އަދި މިދިރާސާގައި އަޅުގަނޑު މި ބައިވެރިވީ އެއްވެސް މަޖުބޫރު ކަމެއް ނެތި އަމިއްލަ އިޚްތިޔާރުގައެވެ.

ބައިވެރިވާ ފަރާތް:

ނަން:.......................................

އެޑްރެސް:.................................

ސޮއި:......................................

ތާރީޚް:.....................................

ދިރާސާގެ މައުލޫމާތު ނެގި ފަރާތް:

ނަން:...............................

ސޮއި:...............................

ތާރީޚް:..............................

APPENDIX D

ފޯމު ނަމްބަރު:

بسم الله الرحمن الرحيم

ސުވާލު ކަރުދާސް

ފުއްޕާމޭގެ ކެންސަރާއި ބެހޭ މަޢުލޫމާތު ހުރިމިން ވަރާއި، ބޭނުން ކުރާވަރު އަދި ފުއްޕާމޭގެ ކެންސަރަށް

[illegible] ދެނެގަތުމަށް ކުރާ ދިރާސާ 2014

މި ސުވާލު ކަރުދާހަކީ ފުއްޕާމޭގެ ކެންސަރާއި ބެހޭ މަޢުލޫމާތު ހުރިވަރާއި، ބޭނުން ކުރާވަރު އަދި ފުއްޕާމޭގެ ކެންސަރަށް ސަބަބުވާ ކަންތައްތަކުގެ މިންވަރު ބެލުމާއި މަޢުލޫމާތު ހޯދުމަށް ބޭނުން ކުރާ ކަރުދާހެކެވެ. މިކަރުދާސް ބޭނުން ކުރާނީ ހަމަ މަޢުލޫމާތު ބޭނުން ކުރެވޭނީ ހަމައެކަނި ދިރާސާ ކުރުމުގެބޭނުމުގައެވެ.

ފުރިހަމަ ނަން:.. ފޯމު ފުރި ތާރީޚް:....../...../.......

އުފަން ތާރީޚް:......./....../.......... އުމުރު:...... އަހަރު.

1. ތަޢުލީމީ ފެންވަރު:

އަސާސީ: ސާނަވީ: މަތީ ސާނަވީ: ސެޓްފިކެޓް:

ޑިޕްލޮމާ: ޑިގްރީ: މާސްޓަރސް:

2. އާމްދަނީ ހޯދުމަށް އަދާކުރާ ވަޒީފާއަކީ ކޮބައި؟

ހ. މަސްވެރިކަން

☐ ۷. ތަނަވަޅުތަކެއް

☐ ۶. ގެއްލިފައި ދާނެ

☐ ۵. ފާސްވެގެން (ގަލުގައި، ގަނޑަށް)

☐ ۴. ގަޔާވެގެންދާ

☐ ۳. ތެދުވެ

☐ ۲. ތެދުނުވާ.....

3. ތަފާތުގައި ވަޔަށްފަހު ކަންތައް ދެމެހެއްޓުމަށް ކަނޑައެޅިފައިވާ ގޮތަކީ ކޮބައިކަމަށް ތިބާ ހީވާ؟

☐ ۷. ހުޅަނގުގެ ތެރެއަށް ގެންގުޅުން

☐ ۶. ގުރަނޓީ ދެވޭ ގޮތަށް ދުވަސްވީ ފަހަރު ތަފާތުކުރުން

☐ ۵. ފަރާތުގެ ވަރަށް ބަލައި ތަފާތުކުރުން

☐ ۴. ގަނެގެންދާ ކަންތައް ކުރިން ބަލައި ބަލައި ގެންގުޅުން

4. ތަފާތުކުރުމުގެ ތެރެއިން ކަނޑައެޅިފައިވާ ގޮތަކީ ކޮބައިކަމަށް ތިބާ ހީވާ؟

☐ ۷. ފަސް

☐ ۶. ދިހަ

5. ގެއްލިފައި ކަންތައް ފާހަގަކުރުމަށް ތިބާ ބޭނުންކުރާ؟

☐ ۷. ބޭނުން ނުވެދޭ

☐ ۶. ގެއްލުމާއި ނަފާތައް

ﷺ. ﷺ ﷺ

ﷺ. ﷺ ﷺ

6. ﷺ ﷺ ﷺ ﷺ ﷺ ﷺ ﷺ ﷺ ﷺ ﷺ؟

ﷺ. ﷺ

ﷺ. ﷺ

7. ﷺ ﷺ ﷺ ﷺ ﷺ ﷺ؟

ﷺ. ﷺ

ﷺ. ﷺ

8. ﷺ ﷺ ﷺ ﷺ ﷺ ﷺ ﷺ ﷺ؟

ﷺ. ﷺ ﷺ ﷺ ﷺ

ﷺ. ﷺ ﷺ ﷺ ﷺ

ﷺ. ﷺ ﷺ ﷺ

ﷺ. ﷺ ﷺ ﷺ ﷺ ﷺ

9. ﷺ ﷺ ﷺ ﷺ ﷺ ﷺ؟

ﷺ. ﷺ

ﷺ. ﷺ

ﷺ. ﷺ

☐ ۴. ހުށިހެދުމެވެ

10. ކުށްވެރިން ފެނުމަށް ތިބެވަޑައިގަންނަވާ ދާއިރާގެ ތެރެއިން ކޮބައިތޯ ކުށްވެރިން ހުއްދަ ދީފައިވާ ގޮތް ދައްކާ ބަޔަކު ހޯދުމަށް ބޭނުންވާ ގޮތް؟

☐ ۱. ފުރަތަމަ ގޮތް

☐ ۲. ދެވަނަ ގޮތް

☐ ۳. ތިންވަނަ ގޮތް

☐ ۴. ހަތަރުވަނަ ގޮތް

11. ފާސްކަމުގެ ތެރޭގައި ކުށްވެދާނެ ގޮތްތަކަށް؟

☐ ۱. ހާސް

☐ ۲. ދޮށް

12. ފާސްކަމުގެ ދަރަނި ދައްކަންވާނީ؟

☐ ۱. ހާސް

☐ ۲. ދޮށް

13. ފުއްދުމުގެ ކުށްވެރިން ބަލައި ގެންދާ ގޮތް ބަލާ ބަޔަކު؟

☐ ۱. ހާސް

☐ ۲. ދޮށް

14. ތިމާވެއްދެވި ފުއްދުމުގެ ކުށްވެރިން ގެންގުވުމަށް ކަނޑައެޅިފައިވާ ގޮތް؟

☐ ހ. ފަރާތްތަކުން ކުރިއަށް ގެންދާ ކަންތައް(ފަދަ ހާލަތު، ދަށް، ތިމާ ކަންތައް)

☐ ށ. ޖީ.ސީ ބަޔަކު ހޯދުން

☐ ނ. ދަށްވަމުންދާ ތަނަވަސްކަން ކަތަނ ހޯދުން

☐ ރ. ކުއްލި ތަކެއް ގަތުމަށް ފައިސާ ހޯދުން

☐ ބ. ކަނޑައެޅިފައިވާ ގޮތަކަށް ހޯދުން

15. ތިއަތޮށުގެ ތަފާތު ގޮތްތަކުގެ ވާދަ ބަލާލުމުގެ ކުރިން ދެ ގޮތަކުން ތަފާތު ކަންތައް ކުރެވޭ ގޮތް ދައްކާ ބަލާ ބަލަންވާ ގޮތް ކަށަވަރުކުރުން ކަމަށް ވަނީ ކޮބައިތޯ؟

☐ ހ. ތަފާތު ގޮތްތަކުގެ ވާދަ ބަލާ ބަލަންވާ ގޮތް ކަށަވަރުކުރުން

☐ ށ. ތިއަތޮށުގެ ގޮތްތަކުގެ ވާދަ ބަލާ ބަލަންވާ ގޮތް ކަށަވަރުކުރުން

☐ ނ. ދަށްވަމުންދާ ތަނަވަސްކަމުގެ ގޮތް ބަލާ ބަލަންވާ ގޮތް ކަށަވަރުކުރުން

☐ ރ. ކުއްލި ތަކެއް ގަތުމަށް ފައިސާ ހޯދުން

☐ ބ. ކަނޑައެޅިފައިވާ ގޮތަކަށް ހޯދުން

☐ ޅ. ވަރު ގަދަކުރުން

☐ ކ. ގާތްގަނޑަށް ހިނގާ ބަދަލުތައް ހޯދުން

16. ތަންޖީމުތަކުގެ ކުރިއަށް ދަނޑުވެދާނެ ކަންކަމާ ގުޅުންހުރި ކަންތައް ކުރެވޭ ގޮތް ދައްކާ ބަލާ ބަލަންވާ ގޮތް ކަށަވަރުކުރުން ކަމަށް ވަނީ ކޮބައިތޯ؟

☐ ހ. ގޮތެއް

☐ ށ. ތަކެއް

☐ ނ. ކޮށްދޭ ގޮތް

ރ. ސޯލްޗީ ބޫބް

......ދެއްވި އަމުރަކީ ވަމުޖުރާޔަށް ބޫނާދިއްޔާ.......