Physician's attitude towards smoking: A survey based study in Bangladesh

A project submitted

by

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ID: 10346003

Session: Summer 2010

to

The Department of Pharmacy

in partial accomplishment of the requirements for the degree of

Bachelor of Pharmacy (Hons.)

Dhaka, Bangladesh

Date: 12/09/2018

Dedicated to my Parents

Certification Statement

This is to certify that the project titled "Physician's attitude towards smoking: A survey based analysis in Bangladesh" submitted for the partial accomplishment of the requirements for the degree of Bachelor of Pharmacy from the Department of Pharmacy, BRAC University constitutes my own effort underneath the supervision of **Imon Rahman**, Senior Lecturer, Department of Pharmacy, BRAC University that proper recognition is given where I have used the verbal communication, thoughts or writings an additional.

Signed,

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Countersigned by the Supervisor

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Acknowledgement

Presentation, encouragement and enthusiasm have constantly played a key role in the success of any venture. Project is like a viaduct between imaginary and practical working. By way of this willing I joined this particular project. Firstly, I would like to show gratitude the supreme power the Almighty Allah who is clearly the one has always guided me to employment on the one has always guided me to work on the exact corridor of life. Next to him are my parents, whom I am greatly indebted for me, brought up with love. I am feeling oblige in pleasing the opportunity to honestly thanks to my praiseworthy teacher **Imon Rahman**, Senior Lecturer and special gratitude to **Dr. Eva Rahman Kabir,** Chairperson, Department of Pharmacy, BRAC University who have been always inspiring and encouraging me though out the year.

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Abbreviations

PHC - Primary health-care

NTCP - National Tobacco Control Program

FDA - Food and Drug Administration

COPD - Chronic Obstructive Pulmonary Disease

CHD - Coronary Heart Disease

TB – Tuberculosis

SHS - Second-hand smoke

HICs - Higher Income Countries

LMICs - Low and middle-income countries

ITC - International Tobacco Control

FCTC - Framework Convention on Tobacco Control

TCA - Tobacco Control Act

GHW - Graphic Health Warning

WHO - World Health Organization

GoB - Government of Bangladesh

Abstract

According to the World Health Organization (WHO), smoking is the major cause of death throughout the world. In order to understand the physician's attitude towards smoking, we devised various statements and questions for this study to allow us to interpret the attitude of physician's towards smoking. The establishment of smoking termination programs denote specifically for the physicians which may also be a significant strategy to enhance the patients' treatment procedure. In this study, 91% physician agreed on the statement that children under age 16 should not have access to purchasing cigarette. About 80% of the surveyed physicians stated that law enforcement to stop buy cigarette is needed for building awareness and keep away people from this deadly disease causing agent. Survey data showed more than 90% of the physicians strongly support that awareness programme should be organised regarding the deadly effects of smoking to raise awareness. Physicians who are current smoker are providing less treatment and precautions than the physicians who are non-smoker or are former smokers. More than 85% physician agreed that academic curriculum should contain the harmful information of smoking thus from the beginning people get used to know the negative impacts of smoking. Although about 90% physician said that they encourage patient not to smoke but the percentage should be 100% as smoking causes various deadly diseases.

CHAPTER 1
INTRODUCTION

1.1 Background of the study

Smoking is a habit detrimental to the people's health. Most of the physicians feel that it is their responsibility to help patients to give up this bad habit of smoking (Keith, 2016). However, some physicians themselves become prone to the habit of smoking. Smoking tobacco often results in several health complications in the human body. Smokers suffer from different types of fatal diseases. Smoking tobacco does great harm to the lungs, causes diseases like bronchitis and can even cause lung cancer in extreme cases (Keith, 2016). The existing nicotine in cigarettes harms the entire cardiovascular system, as blood vessel tightening by nicotine hampers regular blood flow. Smoking can also increase the risk of high blood pressure. It increases the tendency of the body to become insulin resistant, causing a high risk of diabetes (Keith, 2016).

Furthermore, smoking causes loss of appetite, poor eyesight, anxiety and many more problems. Physicians all around the world try to make patients aware of the adverse effects of smoking. Being aware of such harmful effects of smoking, people often try to switch to alternative ways of smoking, like- e-cigarettes. Research suggests that physicians are not considering e-cigarettes to be a most secured alternative to traditional cigarettes. In many countries, e-cigarettes are being promoted as a risk-free substitute for regular cigarettes, which is ultimately resulting in an increased health risk (Lyon, 2014). Smoking is a practice in which a subject is blistered, and the subsequent smoke has taken in to be tasted and consumed into the bloodstream. Most typically the substance is the preserved leaves of the tobacco tree that has been folded into a small square of rice paper to build a small-scale, round cylinder referred to as a "cigarette." Smoking is primarily practiced as an original route of administration for recreational drug dependence (Juliao, Camargo, Citero, Neto, Paes, 2013). As there is no clinically proven safe alternative to smoking, it is recommended by physicians not to consider any alternatives as a way of refraining from smoking. The only way to stay safe from the harmful effects of smoking is to give up smoking for good. Smokers do not merely harm themselves, people around them also inhale the emitted smoke unwillingly, and they become sufferers as well. It is not only the advice and treatment of the physicians that are adequate to lead people to give up smoking but preferably it will also require a sense of self-realization among people about how harmful smoking is for our health. Physicians can only show the way towards a healthy life; rest depends on the efforts put into it by the people (Lyon, 2014).

According to WHO, as smoking is the primary cause of cancer nowadays, intervention against the use of tobacco is the most public problem (Sonmez, Aydin, Turker, Dikici, 2015).To control the use of excessive use of tobacco an anti-tobacco communication campaign is very much essential. Exposure towards the mass media campaign may help to prevent the use of tobacco. The model is a beneficiary in this regard, and these are former smoker campaign and real cost campaign (Schmidt, Kowitt, Myers, Goldstein, 2017). Health practitioners serve as idols for their patients as well as the community people. Health practitioners should admit an excellent guidance by quitting smoking. Patients are getting more motivated if any physician advised him or her to stop smoking. It is the foremost duty of a health professional to ask patients about their smoking status and habits (Hodgetts, Broes, Godwin, 2004). To stop smoking health professional must have to ask their patients not to smoke and provide guidelines for quitting smoking. Health practitioners who are smoker are less presumably to inspire people to stop smoking. Health practitioners should routinely motivate patients who smoke to circumvent smoking around children and mass people (Hodgetts, Broes, Godwin, 2004). However, this attitude depends on the ever smoker and never smoker among the physician and nurse. Smoking is injurious to our health. Neonatal expiration is combined with mostly passive smoking. Maternal smoking tendency during pregnancy period also increases the prevalence and risk of sudden infant death (SID) Syndrome. However, passive smoking causes severe health diseases like as: it can raise the risk and prevalence of lung disease in non-smoking adults. Passive smoking also raises the probability and prevalence of heart disease in non-smoking adults. Paternal smoking also enlarges the possible risk of respiratory tract illnesses (lower body part) such as pneumonia can be more prone among childrens (Hodgetts, Broes, Godwin, 2004).Tobacco use behaviour is primarily determined by the “relation between the price of tobacco products and the consumers of those products,” which is “affordability” of the consumers in other words. While higher prices can help in reducing tobacco consumption, the effect of income growth of the consumers in rising tobacco consumption can outstrip the effect of higher prices in decreasing tobacco use. Therefore, the effectiveness of higher prices in reducing tobacco consumption depends on the amount of price increase by the income of potential tobacco users (Nargis, Stoklosa, Drope, Fong, Qual, et al., 2018). Pictures depicting warning labels were inscribed in 50 percent of the bottom of the packs of cigarette and bidi packaging in April 2016. Effects of such warnings should be evaluated by future research, and public media campaigns should be used to raise awareness among the smokers and non-smokers in general (Driezen, Abdullah, Nargis, Hussain, Fong, et al., 2016).

Smoking is the primary preventable reason, responsible for death in the modern era and an outstanding issue in both developing and developed countries. The primary health-care (PHC) professionals may talk to a crucial resource responsible against smoking (Turkstani, Alkail, Hegazy, Asiri, 2015).

1.1.1 Smoking Categories:

National Tobacco Control Program (NTCP), emphasized on chief prevention, diagnosis and supporting the termination of tobacco has been acquired. National legislation policy also terminates smoking in health and educational institutes and on mostly on public transport (Turkstani, Alkail, Hegazy, Asiri, 2015). Quitting smoking bears the threat of cancer and other related illnesses, such chronic obstructive pulmonary disease, heart disease, caused by smoking. People who abandon smoking, regardless of their age, are less probable than those who carry on smoking to prevent from illness those are occurred because of continuous smoking. A study has proven that smokers who quit smoking at about 30 years of age may reduce their prevalence of dying in a premature stage from smoking-related diseases in a rate of more than 90%. Moreover, people who quit smoking at about the age 50 bring down their prevalence and risk of dying prematurely by more than 50% compared with those people who currently are active smokers (Turkstani, Alkail, Hegazy, Asiri, 2015).

1.1.2 Different modes of smoking:

There are different modes of smoking, mainly –

1. Mainstream/active smoking
2. Side stream/passive smoking.

Mainstream smoking refers to the way of smoking where a person is directly related to the cigarette. Whereas, passive or side stream smoking directs the people who inhale what is exhaled by the smokers. Enormous cases can be seen where non-smokers got lung cancer because of passive smoking. Therefore, we cannot disregard passive smoking since it has the same harmful effects as the active one. Tobacco smoking is detrimental to either the smokers who inhale smoke directly or indirectly (Eldridge, 2018).

1.1.3 Electronic cigarettes (e-cigarettes):

An electronic cigarette is an alternative way of smoking. People are aware of such detrimental effects of smoking; try to switch alternative ways, like – e-cigarette.

Though the effects of e-cigarette are not as much harm as smoking, nonetheless physicians are not considering e-cigarettes to be the safer alternative. They claim that the advertising ofe-cigarette should be prohibited, this type of cigarette should contain adequate warning labels about their possible risks, and the FDA (Food and Drug Administration) should regulate it for safety and quality standards. (Lyon, 2014)

Sometimes e-cigarettes are seen to contain the flavour of fruits or candy. It should also be banned immediately. However, it is clear that the regulation of e-cigaretteis in the exact way as the conventional cigarettes. There are some reasons behind why we should not use e-cigarettes:

- It can damage the brain, heart, and lungs.
- E-cigarette takes place in cancerous tumour development.
- It also causes harmful effects in preterm deliveries and stillbirths in pregnant women.
- Harmful effects on brain and lung development can occur during pregnancy.
- Although, e-cigarette contains nicotine which is a harmful chemical, can disrupt the brain development and the ability of different body organs (Dinakar, 2016).

E-cigarettes are mostly assisted through various forum channels, music events, sports, and out of doors or in various store displays. It may be represented as secured choice to common tobacco cigarettes or as an aid that helps to smoking cessation and recognised as such by way of people who smoke themselves. Smokers who are using e-cigarettes mentioned much less thirst for smoking cessation, and reduction of traditional tobacco cigarettes, extended related severalhealth status and encouraged e-cigarettes to traditional native smokers (Shin, Kim, Chong, Park, Song, et al., 2017). After analysing the effect (Long term) of propylene glycol, respondents declare that e-cigarettes, in a brief, are much less hazardous than traditional cigarettes as because they do not initiate the same products which is not safe for body. The World Lung Foundation (WLF), World Health Organization (WHO) and World Medical Association (WMA) alert towards the use of e-cigarette (Shin, Kim, Chong, Park, Song, et al., 2017). With limited records to lead e-cigarette regulation, in many countries, e-cigarettes

are retailed free, often with the declaration that they resource the cessation of smoking, and e-cigarettes ply typically allowed in the household, in the public transportation, and at workplace. The prime confirmation is blended related to the fruitfulness of e-cigarettes as assisting cessation guidance, the health consequences of second-hand exhibiting tooperate-cigarette's function as the main gateway to traditional tobacco cigarette (Shin, Kim, Chong, Park, Song, et al., 2017).

The Government of United Kingdom allows detail prescription and guidance of e-cigarettes for sufferers attempting to end smoking. E-cigarette containing nicotine is functioned as a tobacco bi-product via Ministry of Strategy and Finance, Ministry of Health and Welfare (MoHW), and e-cigarette not containing nicotine and other contaminating things are regulated by using Ministry of Food and Drug Safety, in Korea. As of the year of 2015, the least age for purchasing cigarette is 19, and the use of e-cigarette is strongly restricted in public places especially which is enclosed and on public transportation openly. The Government of Korea implies a different health value-added tax on containing e-cigarettes, which is equivalent to USD 1.65 per mL liquid nicotine, and for sponsorship or advertising cigarettes they must follow a strict regulation (Shin, Kim, Chong, Park, Song, et al., 2017). The use of e-cigarette is growing gradually among sufferers with cancer. Moreover, a team of these patients was highly recommended to end smoking at the time of prognosis and all through cancer treatment, many of them had excessive nicotine dependence, banned to end smoking no matter quite a few attempts, and sooner or later selected e-cigarette use. The US learn about determined that 38.5% of people living with cancer who had been registered in a tobacco cure software at a complete cancer core had been the usage of e-cigarettes, a highly recommended expand in current years (Shin, Kim, Chong, Park, Song, et al., 2017).

Hazards on e-cigarettes were assessed through a survey whether or not they accept as true with e-cigarettes are not harmful than traditional cigarettes (mainly chew, snuff, dip), and most importantly they presume that it should be a major gateway to other equivalent tobacco containing products. However, this is now not suitable faith due to the fact it carries propylene glycol which has an extended period effect (Shin, Kim, Chong, Park, Song, et al., 2017).

1.1.4 Tobacco smoke containing harmful chemicals:

Tobacco smoke is harmful not only to the smokers but also the non-smokers, and it contains probably 7000 chemicals, among them, 250 chemicals are known to be harmful. Among the

250 chemicals, some are responsible for various heart disease and smoking-related diseases (Nordqvist, 2015). These are:

1. Acetaldehyde 2. Aromatic amines 3. Arsenic 4. Benzene 5. Beryllium

6. 1,3–Butadiene 7. Cadmium 8. Chromium9. Polycyclic aromatic hydrocarbons

10. Cumene 11. Ethylene oxide 12. Formaldehyde 13. Nickel 14. Polonium-210

15. Vinyl chloride. 16. Tobacco-specific nitrosamines

1.2Harmful effects of smoking on the body:

A strong belief of doctors is that cigarette smoking is responsible for coronary heart disease (CHD), chronic bronchitis, and lung cancer. A high portion of medical practitioners stated that smoking is a prime cause or one of the causes of these similar diseases, notwithstanding of whether they were a former smoker, native smoker or non-smoker. A very high ratio of ex-smokers is compared with current and non-smokers' accord that smoking is a most prevalent cause of severe heart diseases. A lower proportion of smokers whencompared with non-smokers, concurred that smoking is a vital cause of various cancer especially lung cancer(Parna, Rahu, 2004).

Stroke, mouth cancer, impotence in men, chronic obstructive pulmonary disease (COPD), acute lung cancer, coronary heart disease (CHD), bronchitis and tuberculosis (TB). Respondents were randomly surveyed whether using smoke free tobacco causes throat cancer, mouth cancer, gum disease and heart disease (Driezen, Abdullah, Nargis, Hussain, Fong, et al., 2016). Awareness of the various health diseases caused because by smoking cigarette and smokeless use; whether cigarette packaging should carry more health information and harmful facts; and whether smoking is interdicted in their homes. The awareness regarding tobacco harms, believing that tobacco smoking packaging must accommodate more health information and the existence of complete smoking restrains in the house (Driezen, Abdullah, Nargis, Hussain, Fong, et al., 2016).

However, the prevalence of smoking inclined to peak in the middle and younger age groups which declined moderately with age. Smokers who are current were less likely to acknowledge the causative role of smoking for various heart disease and lung cancer than

those who are non-smoker. The smoking practice of health practitioners have been shown not to effect patients' perception of their efficacy or the certainty placed in them (Parna, Rahu, 2004). Many smokers have scarcity in the motivation to quit smoking as because they may believe, they are not at prevalence and risk of diseases associated to tobacco after outlive to smoke for several years, while some people may sometimes believe that any occurrence regarding the damage that may have assembled is irreversible. This study stipulated that only 23% of the smokers had undertaken severe trials to prevent smoking. Besides, the reasons for getting back to smoking among current smokers were mostly having smoking friends, working and living with smokers, stress, anxiety and depression. (Turkstani, Alkail, Hegazy, Asiri, 2015).No safe substances in tobacco products are found, from acetone and tar to carbon monoxide to nicotine. The substances that are inhaled by us do not just affect our lungs but our entire body (Cherney, 2017). Some adverse effects of smoking are described below:

1.2.1 Mood stimulation:

Cigarettes do affect the mood due to the nicotine's effect on the dopamine levels in the brain. It can temporarily increase the level of dopamine which can cause negative effects or mood disorders, like - depression. (Heffner, 2012)

1.2.2 Smelly hair:

Tobacco smoke can stick to smokers' hair as well as clothes. Not only the active smokers but also the passive smokers can be a great sufferer of this. (Marcin, 2017)

1.2.3 Unhealthy teeth:

Brownish or Yellowish stains on the teeth are the signs of long-term smoking. It can also lead to tooth or bone loss as it increases the risk for infections and inflammations. (Marcin, 2017)

1.2.4 Bronchitis:

Smokers have a higher rate of bronchitis. Especially the passive smokers or the children are seen to be affected by this a lot. (Marcin, 2017)

1.2.5 Heart disease:

The active smokers and those who are regularly manifested to side stream smoke are at higher risk of heart disease. People who smoke regularly are facing various heart diseases. The active and passive both the smoking group of people are affected with various heart diseases (Marcin, 2017).

1.2.6 High cholesterol:

The smoke of Tobacco increases the body's LDL cholesterol and lowers HDL cholesterol. It is horrible because LDL cholesterol is not worthy of us (Marcin, 2017).

1.2.7 Immune system:

Smoking lessens the body's immune response; as a result, smokers are being more susceptible to infections. Those people who smoke regularly is much affected by many other disease as their immune system becomes weaker. Immune system is the body's defence mechanism that is fighting with all other disease creating micro-organism to protect the body but smoking gradually weakens our body's defence mechanism (Marcin, 2017).

1.2.8 Infertility:

Smoking can lead to lower fertility in the future as well as it causes problems with fertility while smoking.

1.2.9 Erectile dysfunction:

When there's a result of poor arterial blood supply to the erectile, then the erectile dysfunction occurs (Roland, 2017).

1.2.10 Lung cancer:

There is always a higher prevalence and risk of developing lung cancer due to smoking.

1.2.11 Constricted blood vessels:

Tobacco smoke affects the heart and the blood vessels while the amount of oxygen and nutrients that our cells receive is decreased by the constricted blood vessels.

1.2.12 Diabetes complications:

There's a higher risk of serious complications for smokers with diabetes, including – heart and kidney disease.

1.2.13 Blood clotting:

Unwanted blood clots can be raised by smoking, and it also damages the lining of blood vessels.

1.2.14 Cancer connections:

People especially the active smokers have a higher rate of cancers, such as - mouth, throat, bladder and kidney cancers.

1.2.15 COPD:

Chronic obstructive pulmonary disease (COPD), which may occur because of smoking. It is a common disease that can be seen among smokers (Eerd, 2017).

1.2.16 Problems with pregnancy and new-borns:

Miscarriage, asthma, ear infections, death in, etc. can be increased if smoke is inhaled during pregnancy (Everett, 2005).

1.3Causes and symptoms after quitting smoking:

It is authentic that quitting smoking can change one's life and it is benefited to health (Gutterman, 2014). For instance:

- While smoking, the blood pressure (BP) and heart rate are seen to be abnormally very high which starts to return back to the normal condition after quitting smoking.
- After quitting smoking, in fact within some moments the level of carbon monoxide starts decreasing in the blood, and it also helps to increase the capacity to carry oxygen.
- Within few days, those people who quit smoking have a greater circulation, produce less phlegm, and don't wheeze or cough randomly.
- Substantial Improvements to lung functions are seen among the people who quit smoking, though it takes several months after quitting.
- People will be able to free from risks of cancer prevalence, several heart disease, and other major chronic diseases, within a few years of quitting smoking (Gutterman, 2014).

A data from the National Health Interview Survey in United States of America shows that people who quit smoking between 25 to 34 years of old, live longer than 10 years than those people who smoke regularly, those people who refrain from between ages 35 and 44, live about 9 years more longer than the people of others; those people who quit smoking between ages 45 and 54 live about more than 6 years longer than the general smoker; and those people who quit smoking between ages 55 and 64 live about 4 years longer than the smoker person (Gutterman, 2014).

1.4 Smoking prevalence and attitude towards smoking among physicians:

Physicians are deemed as smoker people would receive advice on smoking cessation. However, physicians' smoking status may sometimesaffect their attitude towards smoking and their endeavour in accosting patients' smoking. The smoking attitude among the physicians has been formulated and examined from decades (Pipe, 2009). It is anticipated that health specialists replicate the lifestyle and behaviour in which people may live, and for this reason the charge of smoking among fitness authorities will vary in a comparable manner as these adults in the standard population. Numerous years earlier, any other find out about found that 25% of the medical practitioner and 44% of nurses had been smokers (Hodgetts, Broes, Godwin, 2004).

According to a survey which was related to professional practitioners and smoking characteristics among French general practitioners, where 32.1% of physicians who practiced regularly were current smokers. Moreover, physicians smoked 8.2 cigarettes in a daily basis compared to 14.4 among various French adults which were a significant difference in the perspective of smoking behaviour. However, the overall prevalence rate among men decreased from 36.1% to 33.9% though it increased slightly from 24.9% to 25.1% for women. Countries which have historically high prevalence and incident rates, such as –Spain, Greece and Italy have celebrated that a reduction in physician smoking behavioural patterns often leads to a decrement in the population rate. (Josseran, 2005). The majority of docs had been conscious of the association between smoking and more than a few diseases, with significant variations between people who smoke and non-smokers. Non-smoking medical doctors have been an intense experience, and they are extra energetic in surveying patients abouttheir smokingstatus and habits than those who smoked (Parna, Rahu, 2004). The knowledge smoking occurrence amongst physicians is beneficial for at least two reasons. First of all, such records may point out the possibility of the success rate in anti-tobacco campaigns. In the current nations the specific place where a high share of doctor smokes, it is tough to persuade in the community to the commonplace population of smoking-related health hazards. Secondly, the rate and prevalence of smoking amongst physicians may also replicate the 'maturity' of the smoking epidemic in a unique country. So the risks of smoking come to be higher now, the scientific career will give up smoking until now than the common population (Parna, Rahu, 2004).

Physicians have many liabilities, like as acting as a prime role model, an information provider, an identifier or modifier of analysing risk behaviours and as a researcher. According to the smoking habits among physicians in Istanbul, 60 out of 374 physicians (16%) were classified as smokers who smoked at least 1 cigarette a day; 46% of them, who never smoked were classified as never smoker, 29% of them, who quitted smoking classified as quitters and 8% of them, who smoked rarely or occasionally or did not respond are classified primarily as non-identified (Uysal, 2007).The perspective of healthcare practitioners mainly physicians, is a vital issue to keep an eye on tobacco consumption. A multicentre survey conducted with general physicians and family practitioner from sixteen (16) countries resulted that physicians who are current smoker, had a lower probability of addressing tobacco use throughout consultation or discussion with patients (Juliao, Camargo, Citero, Neto, Paes, 2013). Smoker practitioners are less eager to gather information on patient's tobacco use history, besides being indifferent to counselling. Concerning the attitude towards medical care, there was no adequate association with physician's socio-demographic attribute. The physician's smoking status and speciality were the factors related to the likelihood of physicians treating patient's tobacco dependence. It is found that clinicians and practitioners treated smoking more often than surgeons (Juliao, Camargo, Citero, Neto, Paes, 2013). In research, asking about the use of cigarette was more regular among cardiologists and gastroenterologists, whereas, more comprehensive details about smoking patterns of patients were found among pneumologists (Juliao, Camargo, Citero, Neto, Paes, 2013). Perceiving physicians' attitude towards tobacco dependence may help to evolve policies stimulate treatment for smoking cessation that takes into account specialties different needs in order to perform a better appeal of the patient smoking condition (Juliao, Camargo, Citero, Neto, Paes, 2013). Concerning attitudes and bits of knowledge, all respondents voted that smoking is injurious to anyone's health (Hodgetts, Broes, Godwin, 2004). They should emphasize on it and conduct a crucial role in limiting the smoking habits and make awareof their patients. In a whole, family doctors can play a crucial role in consulting their patients and aware people by taught them various strategies required for smoking cessation (Hodgetts, Broes, Godwin, 2004).

On account of this, it is immensely difficult for smoker physicians to advise their patients against smoking. Several studies have identified that just advice of the physician made about 3-5% of patients to quit smoking. Though the responsibilities are carried by the physicians, and they have the prime opportunity to influence their smoker patients to quit, it is still

questionable to what extent today's doctors serve as a role model or not (Uysal, 2007). Smoking intervention techniques and practices among the primary caregivers such as the nurse were quite low. Moreover, low priority for the patient and lack of time was identified as a barrier for primary caregivers (Sonmez, Aydin, Turker, Dikic, 2015)

1.5 Global scenario of smoking:

Most media publicizing of tobacco cigarettes is constrained in France on account that July 9, 1976 when the first and foremost anti-tobacco regulation was once introduced. In higher current years, the Government of France has taken more and more vital role in adopting policies to decrease the prevalence of smoking (Driezen, Abdullah, Nargis, Hussain, Fong, et al., 2016). A new regulation was once enacted in the year of 1991 that enlarged the advertising and marketing restriction such that from 1993 the advertisement of smoking in newspaper and magazine is banned to reduce the number of smoker worldwide. Smoking was also prohibited in colleges, private clinics, hospitals, restaurants, public transportation, workplaces, and different public places (Driezen, Abdullah, Nargis, Hussain, Fong, et al., 2016). In the year of 1999, the French Ministry of Health introduced a brand new collection of public health measures to minimize smoking that incorporated permission for buying NRT over the counter (OTC), larger fitness schooling programmers' targeting early life populations, and marketing several campaign to interact doctors in smoking termination efforts with their in and out patients (Driezen, Abdullah, Nargis, Hussain, Fong et al, 2016). It is feasible that less favourable opinions may be about the medical occupation or their repute inside the occupation ought to be mirrored in a detailed perceptions about their potential to assist patients to stop smoking. Some additional lookup involving this matter ought to assist in elucidating the position of expert contentment in motivating sufferers to cease smoking (Driezen, Abdullah, Nargis, Hussain, Fong, et al., 2016).

Physicians who are specialist on lung cancer in Korea, feel uncertain about the effectiveness and use of e-cigarette as to support strict regulation and in smoking cessation treatment (Shin, Kim, Chong, Park, Song, et al., 2017). With improved tobacco minimise and control mainly as easy indoor circulation of air legal guidelines and cigarette vat and tax increase, the public pastime in e-cigarettes desperately has improved. The use of e-cigarette6has accelerated sharply in the UK and US. In Korea, the prevalence of the contemporary use of e-cigarette was 1.1% in 2013. The use of e-cigarette with traditional cigarettes is an increasing number of ordinary (Shin, Kim, Chong, Park, Song, et al., 2017). This is merely remain in the same position with the research detection with the United States primary care providers.

Recommendation from an expert society, termed as lately posted by using the Smoking Cessation Committee (SCC) and Tobacco Control (TC) of the International Association for the Study of Lung Cancer, would be beneficiary for physicians to great recommend sufferers about the security and efficiency of e-cigarettes as a smoking termination tool. In our research, lung cancer specialist doctors in Korea suspected the safety, efficacy and use of e-cigarette, as an aid for smoking termination and supported strict regulation for avoiding smoking. Moreover, only 20% said that they acquired facts on e-cigarettes from the scientific literary terms, and many people have shortage of enough knowledge of scientific proof (Shin, Kim, Chong, Park, Song, et al., 2017).Examples of critical policy regulations of the FDA have expressed pastime in thinking about that are probable to have broad populace influence include deducing nicotine or regulating menthol in cigarettes, or terminating and banning candy and fruit-flavoured e-cigarettes and small cigars. Till now, little lookup exists about conceivable attitudes of the adults of United States of America to these insurance policies and elements related to these attitudes (Schmidt, Kowitt, Myers, Goldstein, 2018). Favourable attitudes towards smoking cessation and control strategies can emphasized an effect on certainpolicy adoption, practical implementation, and triumph in changing tobacco-related behaviours and attitudes (Schmidt, Kowitt, Myers, Goldstein, 2018). The present-day lookup examines various attitudes toward 4 conceivable new Federal tobacco rules (banning menthol from cigarettes, lowering nicotine degrees in cigarettes, terminating candy and fruit-flavoured digital cigarettes, and fruit flavoured and associations of such attitudes with countless factors. The previous lookup has measured attitudes towards a variety of tobacco manipulate measures, together with smoke-free policies, elevating the age of tobacco use, terminating menthol in cigarettes, lacking nicotine content material in cigarettes, and banning flavoured e-cigarettes. The current research extends preceding work by means of concurrently assessing a range of factors, which include have confidence in government, information and credibility beliefs about the Food and Drug Administration (FDA), publicity to tobacco control conversation campaigns (TCCC), and state-level variables that may additionally impact attitudes across a various group of doable new tobacco smoking control policies, the use of a nationally representative pattern of United States adults (Schmidt, Kowitt, Myers, Goldstein, 2018).

Moreover, a majority of the United States public represent guidance for most of these prime manageable tobaccos control policies that have the viable to limit disparities in tobacco cigarettes use (Schmidt, Kowitt, Myers, Goldstein, 2018). A complete method for the

reduction of this world pandemic is a priority, which can be seen in European Union anti-smoking strategy. This method affords excellent smoking prevention and termination activities, consisting of schooling measures and restrictions on marketing of cigarettes (Juranic, Rakosec, Jakab, et al., 2017). As a European Union member country, Croatia executes stricter enforcement of new laws towards smoking which was initially brought in 1999. The regulation on the Restriction of the use and misuse of Tobacco Products proposed a total smoking restricted in all workplaces, all public areas the place human beings work, open areas, house such as faculty yards, health facility areas, sports activities stadiums, arenas, open-air theatres, and tram, bus and train stations. Smoking is also strictly banned in all closed public areas along with bars, eating places and cafes (Juranic, Rakosec, Jakab, et al., 2017).

1.6Smoking in context of Bangladesh

Tobacco has always been a concern for the global health of humans, and the situation of Bangladesh in this context has not shown any progress. Despite the decline in tobacco consumption in many countries of the world during the period from 1995 to 2015, the percentage of men using tobacco remains the same, which is 38 percent in Bangladesh (WHO Report). The fact that tobacco consumption makes people vulnerable to death should urge the government to opt for the guidelines proposed by the World Health Organization (WHO) and also to impose a tax amounting to 70 percent on tobacco products. Though the enforcement of a robust tax regime and organization of an anti-smoking campaign throughout the year are necessary to prevent people from smoking, the most crucial step to reduce the number of smokers is to make people aware about the adverse effects of smoking on health. Smokers are more prone to cancer compared to the non-smokers. Smoking also causes diseases like diabetes, hypertension, and heart diseases. Half of the regular smokers are estimated to die early if they do not get rid of their smoking habit. Bangladesh, including 21.9 million adult smokers has been placed among the top ten most massive smoking countries in the world (Hakim, Chowdhury, Uddin, 2017).

Tobacco consumption has been the prime cause of avoidable death globally. Currently, about 6 million people die every year because of tobacco use, and continuity of the current pattern of tobacco consumption will lead to more than 8 million deaths per year in 2030 (Hakim, Chowdhury, Uddin, 2017). About 1.2 million people who reside in the South East Asian region, contributing to 1.2 million deaths per year. In Bangladesh, 46 million tobacco

consumers are adults, making it larger than most other tobacco-consuming countries in the world (Hakim, Chowdhury, Uddin, 2017). The percentages of smoking among males, females, and adults of 15 years or more are 44.7, 1.5 and 23 respectively, making Bangladesh rank among the top ten largest smoking countries in the world. The percentage of smoking prevalence among the adults denotes that about 21.9 million adults are smokers at present in Bangladesh (Hakim, Chowdhury, Uddin, 2017). Bangladesh has been positioned among the top 15 countries vulnerable to diseases contributed by smoking. 25 percent of the death of the Bangladeshi men aged between 25 to 69 years and their reduced life expectancy by seven years on an average has been reported to be contributed by smoking, according to a study performed in 2010. The increasing health and economic burden are also being aggravated by smoking-induced deaths (Hakim, Chowdhury, Uddin, 2017).

Some smokers might think about quitting smoking once they get to experience the adverse effects of smoking. However, it becomes too complicated to get rid of smoking once people become accustomed to it. The tobacco control messages should, therefore, aim at emphasizing on making people refrain from smoking earlier than later (Hakim, Chowdhury, Uddin, 2017). According to a present study, age, gender, level of education, place of residence and smoking rules inside the home of a smoker – all these have been found responsible for failed attempt to stop smoking among the adults in Bangladesh (Hakim, Chowdhury, Uddin, 2017).

Most countries have imposed smoking bans on enclosed public places and workplaces as they could recognize the importance of Second-hand smoke (SHS) exposure. Smoke-free homes in many countries have increased as a result of these bans on smoking. SHS exposure and hospital admission among children also declined to owe to the bans. Evidence of the positive impact of smoke-free legislation, implying their successful implementation started in the Higher Income Countries (HICs), while the same evidence remains low in the low and middle-income countries (LMICs).Systematic evaluation of smoke-free policies in different countries is done by The International Tobacco Control (ITC) evaluation project, which has reported poor performance in the two LMICs – Bangladesh and India (Shah, Kanaan, Huque, Sheikh, Dogar, et al., 2017).

The first 40 countries to sign for the Framework Convention on Tobacco Control (FCTC) included Bangladesh. Increased precautionary labels on tobacco packaging, smoke-free legislation and advertising on promotion and restrictions were implemented in 2006 by The

Bangladesh Tobacco Control Act (TCA) 2005, which was amended in 2012 in order to include comprehensive smoke-free laws and to display graphic warning labels. Smoking in most of the indoor places, workplaces, and public transports is banned at present in Bangladesh. Moreover, there are also no designated public smoking zones as prescribed by legislation to ensure educational and health facilities (Shah, Kanaan, Huque, Sheikh, Dogar, et al., 2017). Almost 80 percent of the children have been reported to be exposed to SHS in public places, if not inside their homes and cars. These children admitted to seeing people smoking in their surrounding public places (Shah, Kanaan, Huque, Sheikh, Dogar, et al., 2017)

A Graphic Health Warning (GHW) supported by the World Health Organization (WHO) and based on anti-tobacco advertisements were documented in late 2015 and mid-2016. A "tobacco-free" country has been promised by the Government of Bangladesh (GoB) by the year of 2040 (WHO, 2017).

CHAPTER 2
METHODOLOGY

2.1 Research Objective:

The primary objective of the research is to gain an understanding of the physician's attitude towards smoking.

2.2 Research Design:

At first, an extensive literature review was done to understand the overall view of the physician's attitude towards smoking. After doing a focus group discussion, we find some questionnaires that served our goal. We target physician's from a different district to serve our project goal as we target both the rural and urban physician. The data was then analysed by using SPSS version 21.

2.3 Research Questionnaires (RQ):

A total of 13 questionnaires were developed to conduct the research and know about the physicians' attitude towards smoking.

RQ 1: Gender?

RQ 2: Where your hospital is located?

RQ 3: What is the specialization of the Physician?

RQ 4: What is the smoking status of Physician?

RQ 5: Physician's statement on "Children under age 16 should unable to buy cigarettes."

RQ 6: Physician's statement on "Law enforcement to stop buy smoking."

RQ 7: Physician's attitude towards the statement of "Smoking advertisement should never be presented in the media."

RQ 8: Physician's statement on "Awareness program should be organized regarding smoking."

RQ 9: Physician's statement on "Academic curriculum should contain information on the harmful effects of smoking."

RQ 10: What are the reasons for physician's smoking?

RQ 11: Do the physician ask patient about their patient's smoking status?

RQ 12: Do physician encourage smoker patients not to smoke?

RQ 13: Reasons behind not to quit smoking of the physician.

CHAPTER 3

RESULT and DISCUSSION

Out of 407 participants, 77.7% of the physicians are male, and 22.1% of physicians are female. Both the male and female practitioners are somehow smoker, ex-smoker or non-smoker.

Table 1: Gender

	Frequency	Percent
Male	317	77.9
Female	90	22.1
Total	407	100.0

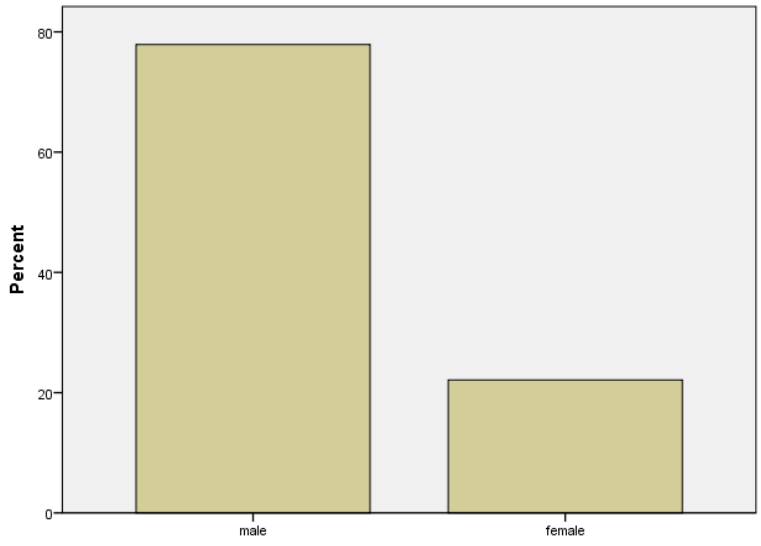

Figure 1: Gender

Physicians those are selected as the participant are from urban and rural, and they are more or less equal. In our survey, 50.9% of physicians are from rural, and 49.1% are the urban physician.

Table 2: Area of Hospital

	Frequency	Percent
Rural	207	50.9
Urban	200	49.1
Total	407	100.0

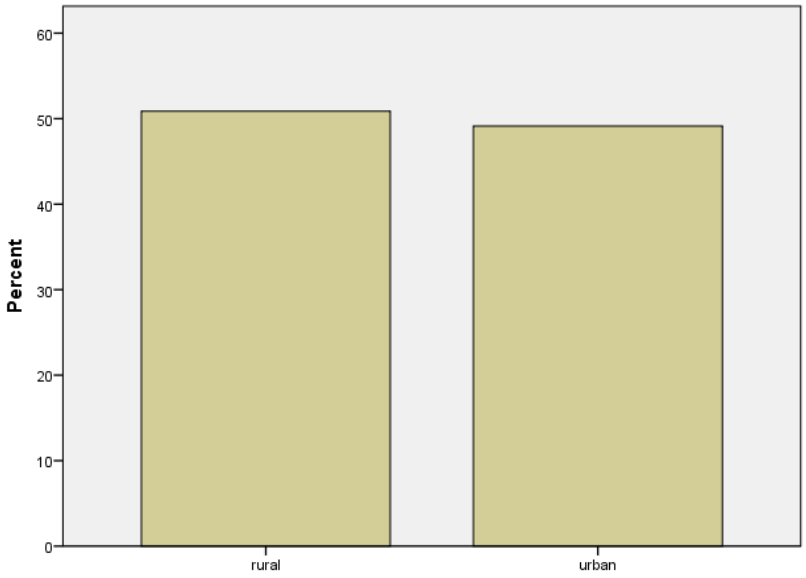

Figure 2: Area of Hospital

In our survey, we choose participants on their specialization basis. 37.1% physician is the cardiologist, 17.4% is the endocrinologist, 6.6 % are kidney doctor, 30.5% are medicine doctor, and 8.4% are trainee doctor. Their concern on the attitude towards smoking was taken, and further analysis was done in several methods.

Table 3: Specialization of the Physician

	Frequency	Percent	Cumulative Percent
cardiologist	151	37.1	37.1
endocrinologist	71	17.4	54.5
kidney	27	6.6	61.2
medicine	124	30.5	91.6
trainee	34	8.4	100.0
Total	407	100.0	

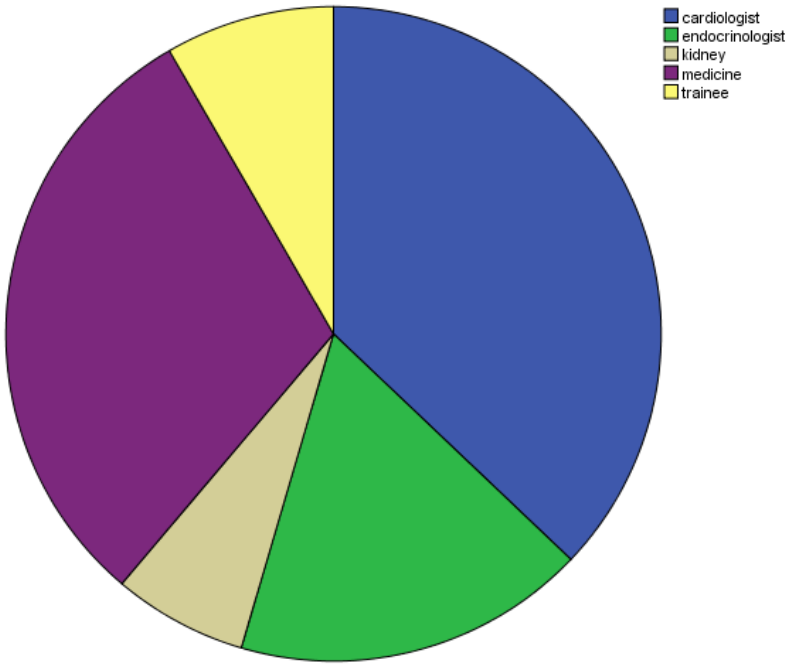

Figure 3: Physicians specialization

Before taking the physicians concern we thought that it would be better to take concern about their smoking status and we saw that about 52.3% of physicians are a non-smoker, 27.5% of the physicians are a current smoker and about 20% of physicians are a former smoker.

Table 4: Smoking status of Physician

	Frequency	Percent
Never smoked	213	52.3
Current smoker	112	27.5
Former smoker	82	20.1
Total	407	100.0

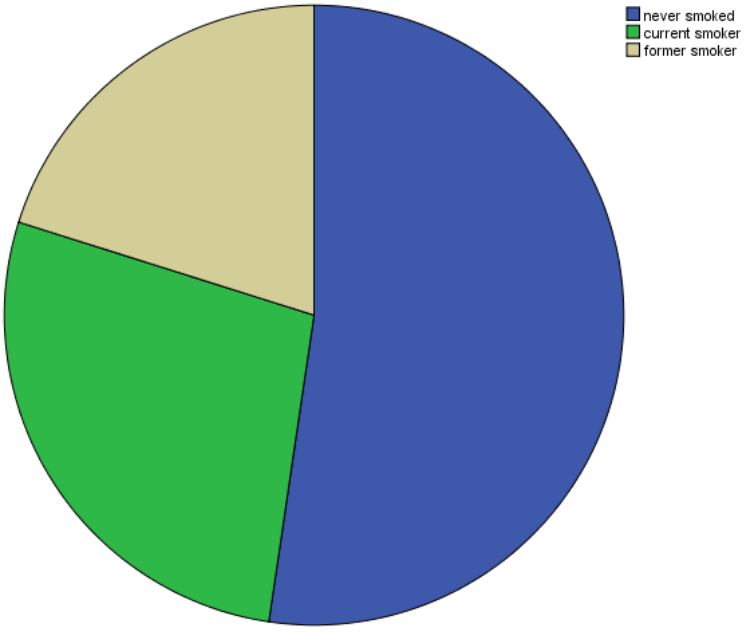

Figure 4: Smoking status of Physician

About 91% of physician agreed on the statement of “Children under age 16 should unable to buy cigarettes”.1.7% physician disagreed and about 7% of physician remains neutral.

Table 5: Physician’s statement on “Children under age 16 should unable to buy cigarettes”

	Frequency	Percent
Agree	372	91.4
Disagree	7	1.7
Neutral	28	6.9
Total	407	100.0

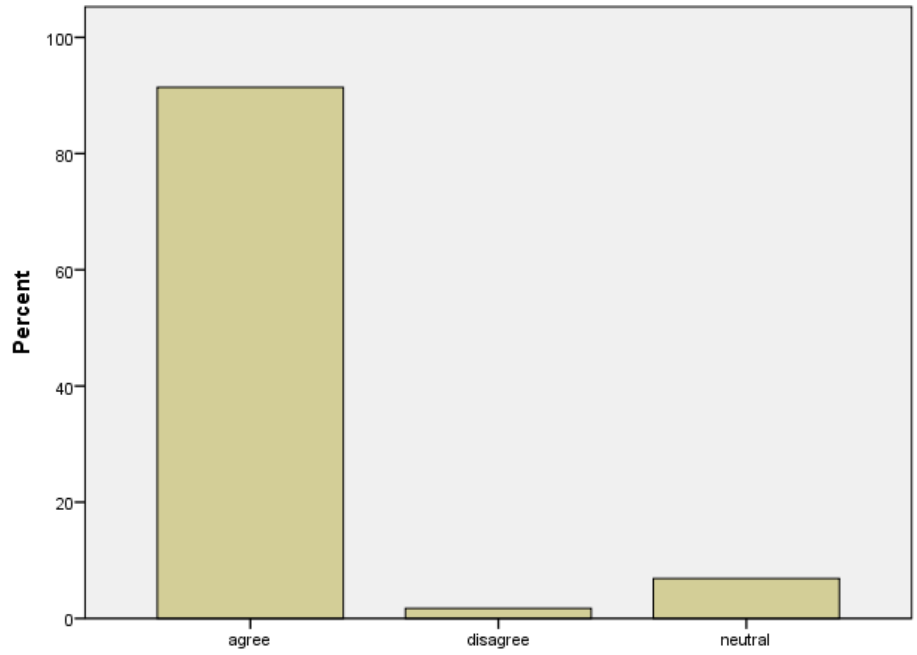

Figure 5: Physician’s attitude towards the statement of “Children under the age of 16 should be unable to buy cigarettes.

We took concern of physician's regarding the statement on "Law enforcement to stop buy smoking," and 82.6% agreed. About 10% and 7.4% remains disagree and neutral respectively. As the cigarette packet bears the information about its harmful effects and the statement like it causes cancer or death, rather than law enforcement physician suggest that we should raise awareness among people.

Table 6: Physician's statement on "Law enforcement to stop buy smoking"

	Frequency	Percent
Agree	336	82.6
Disagree	41	10.1
Neutral	30	7.4
Total	407	100.0

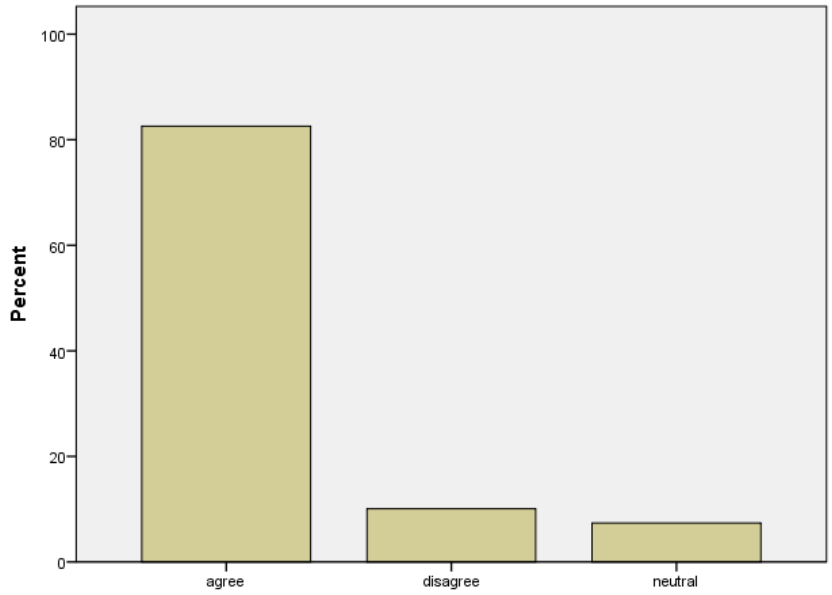

Figure 6: Physician's attitude towards the statement of "There should be a strict law enforcement to stop public smoking."

About 77% Physician on the statement “Advertisement should never be presented in media” agreed that the advertisement should not be present in the media and people can know and make use of it. On the other hand, nearly 9% physician disagreed, and 13.3% physician remained neutral as if we advertise the adverse and harmful effects of smoking then it can be helpful to decrease smoker.

Table 7: Physician’s statement on “Advertisement should never be presented in media”

	Frequency	Percent
Agree	315	77.4
Disagree	38	9.3
Neutral	54	13.3
Total	407	100.0

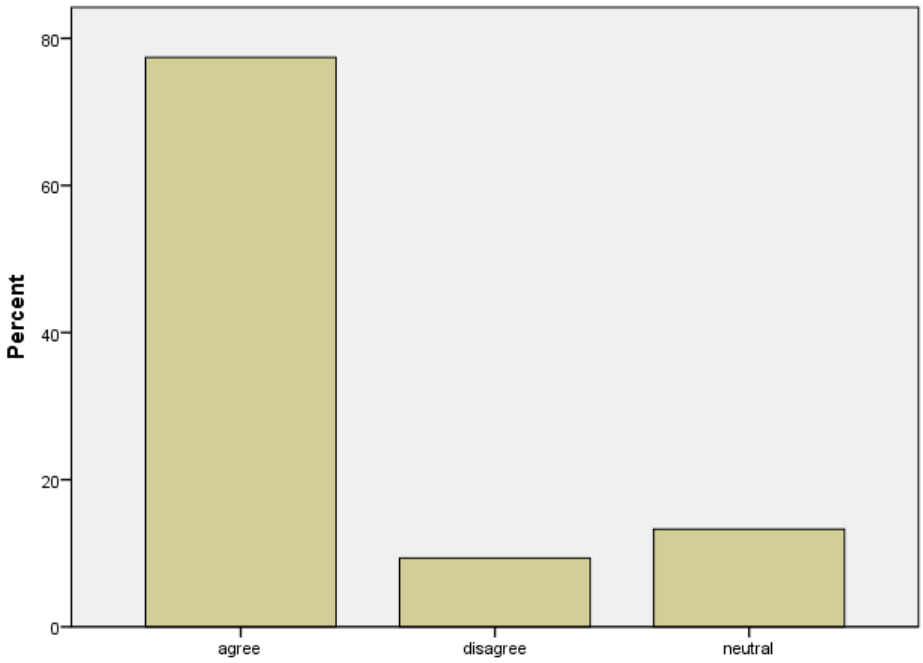

Figure 7: Physician's attitude towards the statement of “Smoking advertisement should never be presented in the media."

Physician on the statement of "Awareness program should be organized regarding smoking" agreed that it is vital and about 91% of physician agreed for it. Nearly 6% of physician remains neutral.

Table 8: Physician's statement on "Awareness program should be organized regarding smoking"

	Frequency	Percent	Cumulative Percent
Agree	370	90.9	90.9
Disagree	15	3.7	94.6
Neutral	22	5.4	100.0
Total	407	100.0	

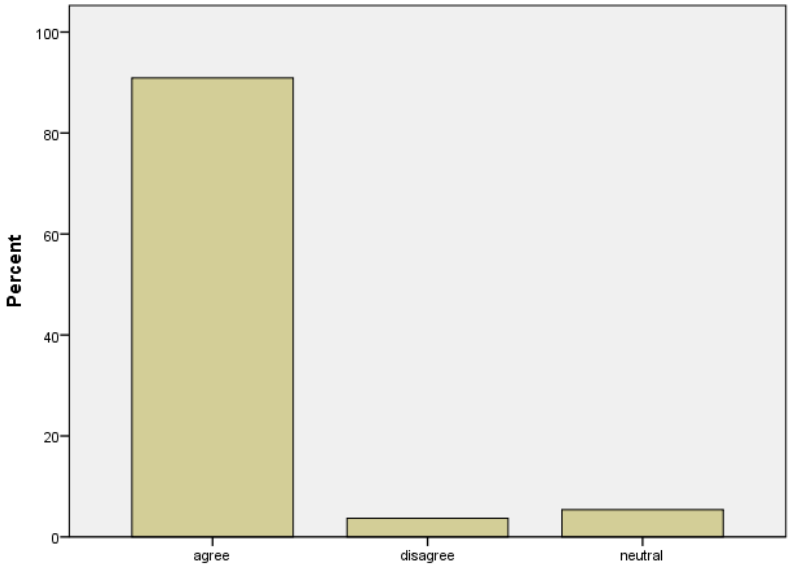

Figure 8: Physician's attitude towards the statement of "Awareness program should be organized regarding smoking and its health impact."

Most of the physician agreed that academic curriculum must provide awareness among people about its adverse effects and most of the physician agreed with that statement. Nearly 3% physician disagreed, and they think that it makes smoking more familiar that now.

Table 9: Physician's statement on "Academic curriculum should contain information on harmful effects of smoking"

	Frequency	Percent	Cumulative Percent
Agree	355	87.2	87.2
Disagree	10	2.5	89.7
Neutral	42	10.3	100.0
Total	407	100.0	

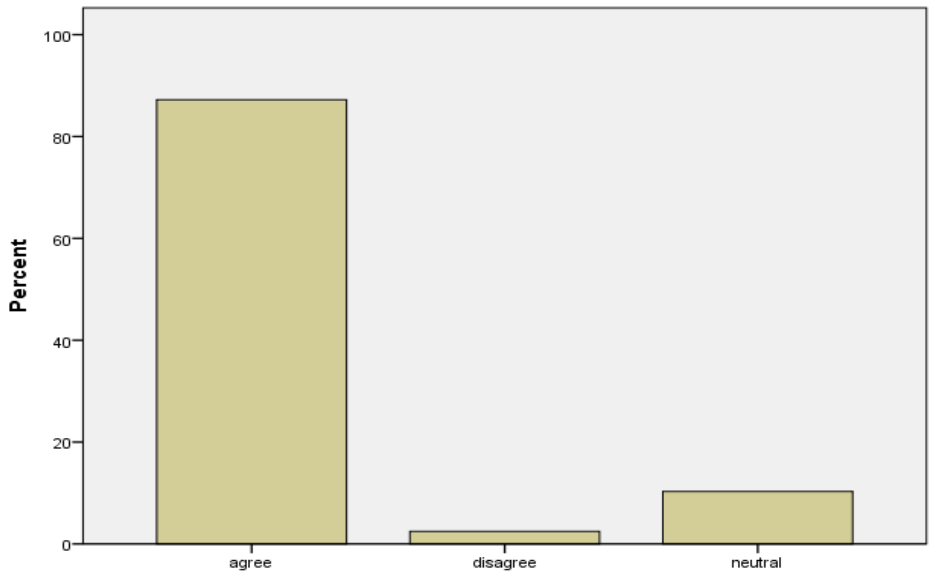

Figure 9: Physician's attitude towards the statement of "Academic curriculum should contain information on harmful effects of smoking to increase awareness of the impacts of active and passive smoking."

The physicians who are smoker told us some reasons behind their smoking. 14% of them told that they smoke because to relief their stress and 15% told that they smoke because to relief their anger and frustration. The other reasons behind physician's smoking were peer pressure, image perception, and sign of masculinity and so on.

Table 10: Reasons for physician's smoking

	Frequency	Percent	Valid Percent	Cumulative Percent
Stress relief	57	14.0	21.8	21.8
Image perception	11	2.7	4.2	26.1
Peer pressure / companionship	27	6.6	10.3	36.4
Leisurely independence	15	3.7	5.7	42.1
Sign of masculinity	8	2.0	3.1	45.2
Relief of anger and frustration	61	15.0	23.4	68.6
No needed to answer	82	20.1	31.4	100.0
Total	261	64.1	100.0	
Missing system	146	35.9		
Total	407	100.0		

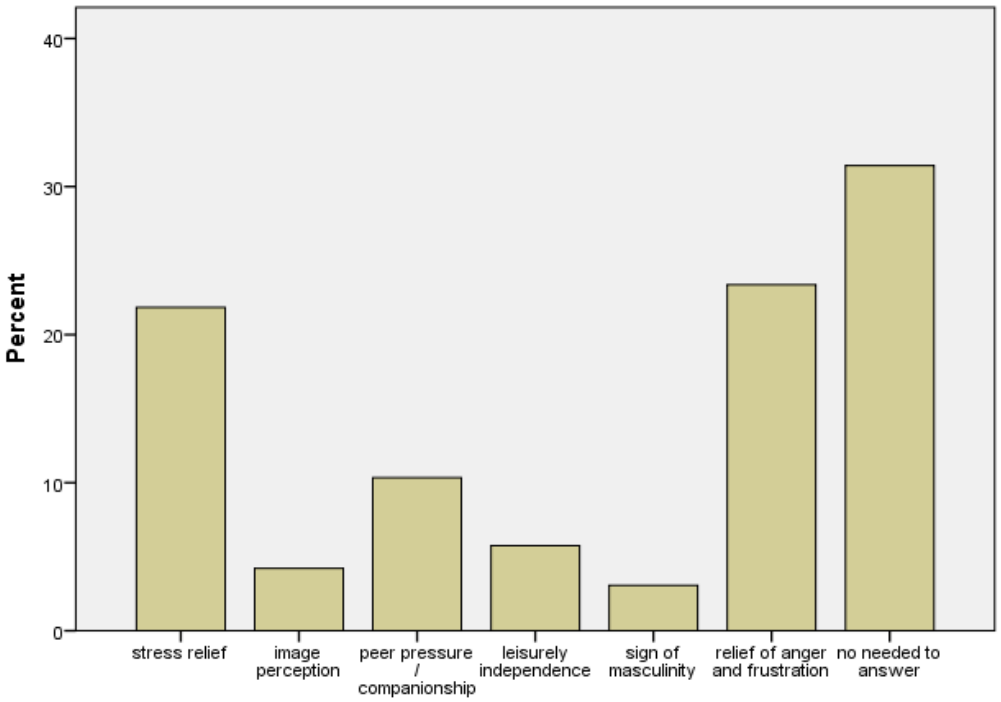

Figure 10: Reason's behind physician's smoking.

About 78% of physician told that they ask the patient of their smoking status while treatment but nearly 22% of physician did not ask about their status. Smoking is injurious for health and doctors need to know about their patients smoking status and should try them not to smoke.

Table 11: Physician ask patient about their smoking status

	Frequency	Percent	Cumulative Percent
Yes	317	77.9	77.9
No	90	22.1	100.0
Total	407	100.0	

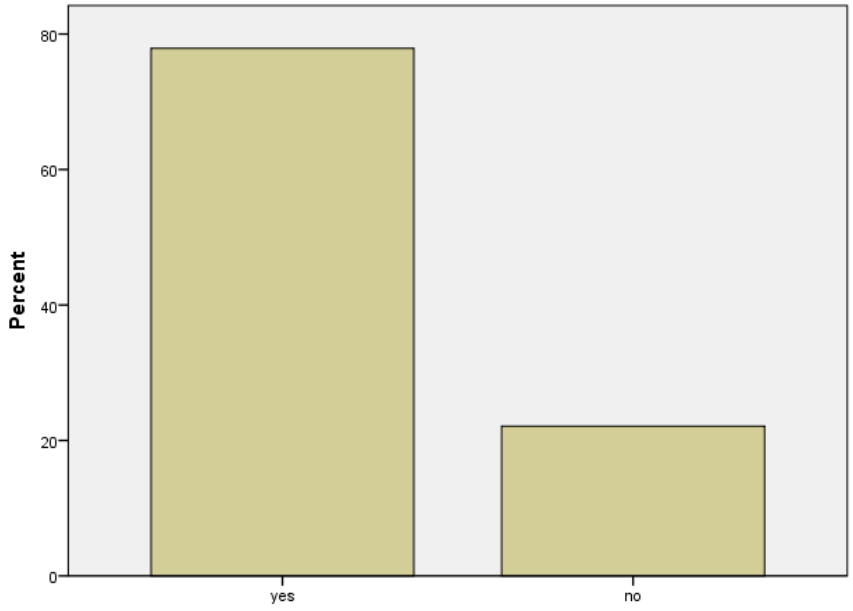

Figure 11: Physician ask patient about their smoking status.

In the question of doing physician ask and encourage their smoker patient not to smoke about 92% physician did this and only 8% did not encourage. So, it is very positive for us that most of the doctors are on the right track.

Table 12: Physician encourage patient not to smoke

	Frequency	Percent	Cumulative Percent
Yes	373	91.6	91.6
No	34	8.4	100.0
Total	407	100.0	

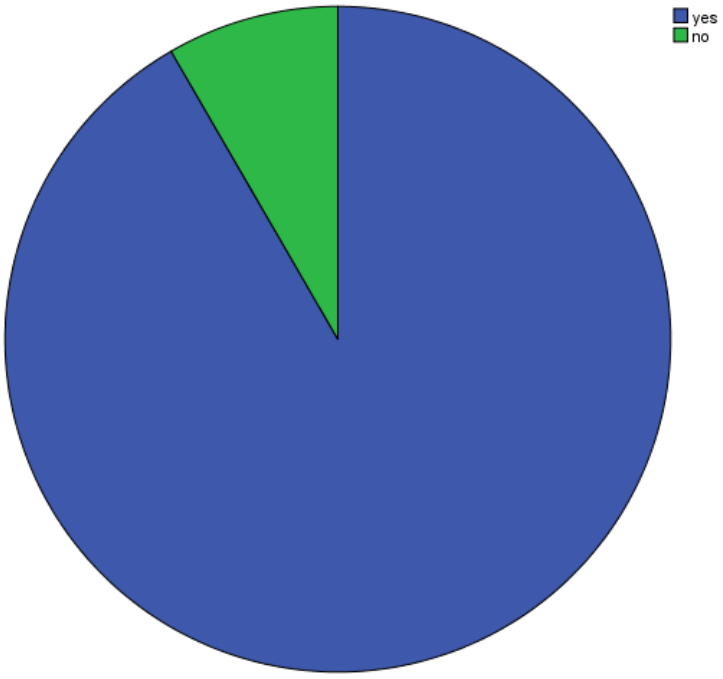

Figure 12: Physician encourage patient not to smoke

About 5% physician told that they are trying to quit smoking and about 4% said that they are not quitting because of no reason. However, about 4.7% said that they are addicted to this. 5.7 % said that they are habituated and dependent. Though 7.6% physician told that they smoke so that they can relax, 9.6% physician said that they do not want to comment on this question.

Table 13: Reasons behind not to quit smoking of the physician.

	Frequency	Percent	Cumulative Percent
Trying to quit	20	4.9	4.9
Relief of pressure and stress	20	4.9	9.8
Addiction	19	4.7	14.5
Habituated	23	5.7	20.1
Dependency	23	5.7	25.8
Relief of anger	28	6.9	32.7
Feeling relaxed	31	7.6	40.3
Other	24	5.9	46.2
No comments	39	9.6	55.8
Personal reasons	14	3.4	59.2
No reason	16	3.9	63.1
Don’t want to share	150	36.9	100.0
Total	407	100.0	

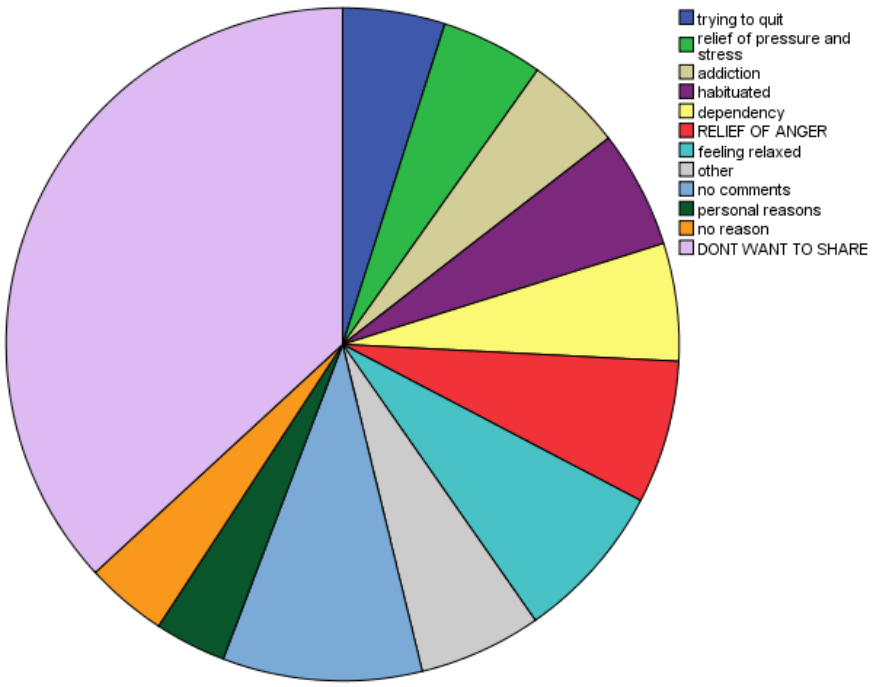

Figure13: Reasons behind not to quit smoking.

CHAPTER 4

CONCLUSION

No matter how people smoke it, tobacco is hazardous to health. There are no safe substances in tobacco products which will not affect our lungs. Our entire body can be affected by them. Smoking is immensely addictive. The addiction to cigarettes that contain nicotine is more or less similar to the addiction that produced by using drugs. Quitting smoking is essential as well as a tough task to do. However, to assure the safety of our body, it is a must to relief from cigarettes. It is true that there's a massive responsibility to physicians to make their patients understand the harmful effects of smoking, but it is also a fact that physicians can only show the way towards a healthy life, the rest depends on the efforts put into it by the people who smoke (Marcin, 2017). However, there is no safe level or alternative ways of smoking, such as – e-cigarette. The electronic devices it contains have similar harmful effects on the body. To alleviate the risk of having different diseases like – lung cancers, people, as well as the physicians, should be concern about minimizing the use of cigarettes. In our survey about 78% physician said that they ask patient about their smoking status and more than 90% of the physician encourage patient not to smoke.

CHAPTER 5

RECOMMENDATION

Counselling by way of health experts on smoking cessation strategy is vital if their patients are moving to give up smoking. However, it can also be viable that professional fitness snow not only actively counselling patients on their smoking cessation may additionally underestimate the efficiently supporting their sufferers via to smoking cessation and strategies (Hodgetts, Broes, Godwin, 2004). Medical experts are often capable of influencing the conduct of their sufferers as nicely as the society, a complete in the prevention of sickness and promoting of wellbeing (Parna, Rahu, 2004).

The necessity of doctors' advice against smoking:

It is a responsibility to physicians to guide their patients and advise them not to inhale smoke. However, in some cases, the sense of self- realization is also required among people about how harmful smoking is. Here is some self-help tips, doctors usually provide their patients. These small changes to their lifestyle can help to stop smoking and may help them resist the temptation to light up. (Joshi, 2010)

- They have to think positive
- A plan to quit smoking should be made
- Their diet should be considered
- Their drink should be changed
- They have to identify when they crave cigarettes
- People have to get some support to stop smoking
- People must get moving
- People should make non-smoking friends.

CHAPTER 6

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CHAPTER 7

APPENDIX

1. Hospital:_____

3. Gender: 1) Male 2) Female **2**. Hospital Area: a) Rural b) Urban

4. Your smoking status: Never smoked / current smoker / Former smoker

5. Give your opinion regarding the following statement:

Statements		**Agree**	**Disagree**	**Neither Agree nor Disagree**
A	Children under the age of 16 should be unable to buy cigarettes.			
B	There should be a strict law enforcement to stop public smoking.			
C	Smoking advertisement should never be presented in the media (TV, Billboard, Printed Media etc.)			
D	Awareness programs should be organized regarding smoking (active and passive)and its health impact.			
E	Academic curriculum should contain information on harmful Effects of smoking to increase awareness of the impacts of active and passive smoking.			

6. What do you think are the reasons for your smoking?

1) Stress relief 2) Image perception 3) Companionship/ Peer Pressure

4) Leisurely Independence 5) Sign of masculinity 6) Relief of anger and frustration

7.	If there is any restriction to your smoking in your area, do you comply?	Yes	No
8.	Do you ask all your patients about their smoking status?	Yes	No
9.	Do you encourage smoker patients not to smoke?	Yes	No
10.	Do you discuss the risks of smoking with all your patients?	Yes	No

11. Why don't you quit smoking? _____