

CHAPTER-1

INTRODUCTION

1.1 Background of the study

Nepal is a country where people of different ethnic groups live together. People relating to different ethnic have their own languages, culture and tradition. Geographically Nepal is divided into three region they are mountain, hills and terai region. As there are high mountains, hills and plain land, Nepal is rich in term of biodiversity. Beyond this Nepal hasn't developed economically because of it's own geographical difficulties, being landlocked country and many more.

Cardiovascular Disease (CVDs) havenow been finally recognized as a major public issue in Nepal. This small landlocked South Asian country has an abundance of harmful rise factors that lead to CVDs and the country lack the system to maintain cardiovascular health.

A heart attack occurs when the flow of the blood to the heart is blocked most often by a build- up of fat, cholesterol and other substances, which form a plaque in the arteries that feed the heart (coronary arteries). The interrupted blood flow can damage or destroy the part of the heart muscle. (By mayo clinic staff)

The national survey carried out by the Health Research Council has recently focus that a majority of people indulge in one or more risk factors including tobacco use, alcohol consumption, low fruit and vegetable consumption and physical inactivity that pose a threat for disease contraction. Biological factors such as obesity,highbloodpressure, high blood sugar level and abnormal lipids also contribute to the risk of the disease.

Nepal has been a vulnerable home to a host of communicable diseases like diarrhoea, dysentery and cholera for a long time now. But while the country has been able to fend off these disease to a certain extent by increasing awareness about basic hygiene and preventive measures, experts believe that pattern seems to be shifting towards non-communicable diseases (NCDs) now the diseases falling under this category is gaining upper hand. CVDs is the number one causes of death. Globally

more people die annually from CVDs than from any other causes. An estimated 1.7 million people died from CVDs in 2015, representing 31% of all global deaths and estimated 7.4 million were due to coronary heart disease and 6.7 million were due to stroke. Over three quarters of CVDs deaths take place in low and middle income countries. Out of the 17 million premature deaths (under the age of 70) due to non-communicable diseases in 2015, 82% are in low and middle income countries, and 37% are caused by CVDs.

Currently, Nepal is yet to implement health policies to tackle CVDs or other NCDs. Management of CVDs in Nepal has attracted the attention of the government and external development partners more so after the endorsement of the millennium development goals (MDGs). Management of CVDs in Nepal has characteristically been focused on treatment rather than education and preventive health care.

The increasing annual numbers of hospital admission with CVDs also suggest the same. It may be added that there are about 80 registered cardiologists in Nepal: 90% of them are in Kathmandu. But the majority of the country comprises villages and healthcare in these remote areas is provided mainly by auxiliary health staff who do not have the training needed to deal with CVDs in the primary health care that they provide.

1.2 Significance of the Study

Coronary Heart Disease (CHD) is one of the leading causes of illness and death among the top three disease classifications all over the world. Although CHD is an interesting area of research in context to Nepal, studies regarding the knowledge of cardiovascular risk factors are limited. This study will help to provide baseline data on knowledge and prevention of risk factors of CHD.

In the current situation CHD is being epidemic and most challenging health issues in the world, that's why it is very important to learn in depth about CHD, the main significance of this research are

-) The result of this study is helpful in developing appropriate text books and other materials related to the CVDs.

- J This study gives guidelines for the government, NGOs, INGOs, planners and policy makers to make necessary plan and implement programme to reduce CVDs.
- J It is helpful and also guidelines for the improvement of health service providers.
- J This study provides the information about the knowledge and perception of the patients and their relatives on CVDs.
- J This study is helpful for those who are interested to conduct further research in this topic.

1.3 Statement of the problem

As CVDs is becoming epidemic the burden of coronary artery disease and its risk factors are going to be national health problems even for Nepal as the number of patients with this disease is expected to increase rapidly. Ischemic Heart Disease (IHD) is the number one cause of death in adults from both low and middle income countries high as well as in high income countries.

According to the World Health Organization estimated 16.6 million people died of cardiovascular disease (CVD) in 2001 and developing countries contributed to 78%. It also estimates, nearly 25 million people will die of CVD by 2020. This incidence of coronary artery disease is declining in the developed countries on the other hand it is alarming in developing countries. About 3.8 million men and 3.4 million women worldwide die each year from coronary artery disease. (WHO, 2002)

The incidence of coronary artery disease goes on increasing as one gets older and is more prevalent in male. The life time risk of developing coronary heart disease in a person aged 40 years is 49% in men and 32% in women. At the age of 70 years, the time of risk in men is 35% and 24% in women. According to WHO annually 1.8 crores died of CVDs and 80% of them were from developing countries and low standard families. CHD is found mostly in developing countries rather than the developed countries, till 2020 CVDs will be epidemic in South Asia. (Wilson, 2019)

Knowing the current situation of Nepal cardiologist of Bir Hospital said that in Nepal the prevalence of heart attack rise up dramatically, he further added before five years there was a concept on people that person above the age of 40 is at the risk of

CHD but now it is found at the age of 17 years too. Last year's data of S.G.N.H.C. shows that 1188 patients with heart attack were treated, in which 27% of them were women.

There are very few studies about the prevalence of coronary artery disease in Nepal. The diagnostic works-up for patients showing the signs and symptoms of IHD is expensive in Nepal. A few private hospitals and nursing homes provide these services but at high cost, not many Nepalese people can afford this service fee. In addition to this even after diagnosis of IHD, treatment is very expensive, thus many patients are left without any standard treatment. Invasive procedures including coronary angioplasty with stent or bypass indicated in many patients with coronary artery disease, are available only in selected health centres of Nepal at costs.

The symptoms of heart attack can vary from person to person. Some people can have few symptoms and are surprised to learn they've had a heart attack. If anybody of us already had a heart attack our symptoms may not be the same for another one.

The government has an important role in prevention and treatment of CHD in Nepal. In a country like ours which is already burdened by numerous communicable diseases, prevention of non-communicable disease like CHD should be the major goal rather than struggling for cure later on. The government should thus, start awareness programmes on prevention of coronary artery disease as a part of primary prevention. Secondary prevention may be done even at primary health centres by keeping patients with risk of CHD on routine follow up and referring high-risk cases to the higher cardiac centres.

1.4 Objectives of the Study

The general objectives of this study is to assess the life style of the patients with coronary heart disease at cardiac ward of Nobel Hospital.

The specific objectives of this study are as follows:

1. To assess the lifestyle of the patients with coronary heart disease.
2. To find out the association between life style and selected variables.

3. To assess the knowledge and perception about causes, risk factors and preventive measures of coronary heart disease.

1.5 Delimitation of the Study

-) This study covered only the patients of Nobel hospital's cardiac unit.
-) This study was related to CVD.
-) The entire study will be based upon primary and secondary data.
-) The sample size was selected by the help of purposive sampling procedure.
-) The total population of the study were 55.

1.6 Operational Definition Key Terms

Heart : a hollow muscular organ that pumps the blood through the circulatory system by rhythmic contraction and dilation.

Attack : act against (someone or something) aggressively in an attempt to injure or kill

Cardiovascular : relating to the blood and blood vessels.

Muscle : a band or bundle of fibrous tissue in a human or animal body that has the ability to contract.

Behavioural : involving, relating to, or emphasizing behaviour.

Biological : relating to the biology or living organism genetically related

Lipid : any of a class of organic compounds that are fatty acids or their derivatives and are insoluble in water.

Coronary : relating to or denoting the arteries which surround and supply heart .

Artery : any of the muscular –walled tubes forming part of the circulatory system by which blood (oxygenated) is conveyed from the heart to all parts of the body

Non-communicable : not able to be transmitted from one sufferer to another

Communicable : able to be transmitted from one sufferer to another categories

CHAPTER – 2

REVIEW OF THE RELATED LITERATURE AND CONCEPTUAL FRAMEWORK

This chapter includes some relevant studies about cardiovascular diseases. The facts opinion, principles and reports of the previously done research or study are directly or indirectly related to this literature review.

2.1 Review of Theoretical Literature

Heart attacks is a leading cause of death in adult. The medical term for heart attack is myocardial infarction. Heart attack occurs when the blood flow to the heart is severely reduced or completely blocked. The heart muscle needs regular supply of blood and oxygen to survive. If the blood flow to the heart is not restored quickly, muscle tissue begin to die. (NHLBI, 2017)

CHD is being epidemic in developing countries of south Asia. Certain behavioral risk factors are more responsible to increase the rate of CHD and NCD, they are unhealthy diet, physical inactivity, tobacco use and harmful use of alcohol. These effects of behavioral risk factors may show up in individual as raised blood pressure, raised blood glucose, raised bloods lipids, overweight and obesity. These “intermediate risk factors” can be measured in primary care facilities and indicate an increased risk of developing a heart attack, stroke , heart failure and other complications. (Borgen, 2018)

Cardiovascular disease (CVD) includes heart disease (i.e. myocardial infarction and angina), stroke, hypertension, congestive heart failure (CHF) hardening of the arteries, and other circulatory system diseases. CVD is the number one cause of death in America, responsible for more than 40% of annual death. An average of 1 death due to CVD occurs in every 33 seconds in United States. (Mayo Clinic, 2018)

In addition to mortality, poorly managed CVD can lead to significant long-term disability from the complications of heart attacks, strokes, heart failure, and end stage renal disease. Costs due to death and disability are enormous; the estimated medical and disability cost (year 2002) of CVD – related decodes amounts to \$330

billion. The American Heart Association (AHA) spent \$382 million during 2000 and 2001 on CVD research support, professional and public education and community service programs, CVD is a serious health issue which requires greater attention to promote awareness and treatment, both to health care provider and public.

South Asians have a higher risk for coronary artery disease (CAD) due to pathophysiology and life course related risk factors.

Proportion of the higher risk of south Asians for (CAD) can be explain by conventional risk factors. However, several conditioning factors such as education, socioeconomic status, and fetal programming, and early life influences may contribute to excess(CAD) risk in south Asians, Suggesting the need for a life course approach.

Evidence on unconventional risk factors is provocative but comes from small studies large-scale, well-designed epidemiological studies are needed for an in-depth understanding of the CAD risk among south Asian.

Epidemiological studies on people of south Asian origin, whether living in south Asia or living abroad, suggest that the likelihood of developing CAD in South Asians is about 2 times higher than in Europeans and 5 times higher than in Chinese. Although the risk factors for CAD in general are well recognized, the scale and pattern of traditional risk factor exposures may be distinctly different in south Asian compared with other groups. (Nair, 2012)

A individual having family history of heart attack i.e. if you have a close relative who developed CHD prematurely before 55 for men and 65 for women are at high risk. AT present situation incidence of CHD in developed countries are getting low while in the same time it is being epidemic in developing countries, especially in south Asians countries. (Thompson, 2002)

Cardiovascular disease (CVDs) are disorder of the heart and blood vessels and include coronary heart disease, cerebrovascular disease, rheumatic heart disease and other conditions. Four out of five CVD death are due to heart attack and stroke. Individuals at risk of CVD may demonstrate raised blood pressure, glucose and lipids as well as overweight and obesity. These can be easily measured in primary care facilities. Identifying those at highest risk of CVDs and ensuring they receive

appropriate treatment can prevent premature deaths. Access to essential NCD medicines and basic health technologies in all primary health care facilities is essential to ensure that these in need receive treatment and counseling.

Management of CVDs in Nepal has characteristically been focused on treatment rather than education and preventive healthcare. There has been dramatic rise in the availability of interventional cardiology and cardiothoracic surgery services. Although these services are essential to save the lives of those who are already diseased, they have not slow down the growing epidemic of CVDs in the country. The increasing annual numbers of hospital admission with CVDs also suggest the same. (Vaidya, 2011)

2.2 Review of empirical literature

Coronary artery disease (CAD) contribute to a higher risk at morbidity and disability in South Asian population. Deaths from CAD in India have almost doubled in the past 10 years. CAD accounted for 3% of the total deaths in Nepal in 1995 and 17% of total deaths in Srilanka in 1998, and the national surveys in these countries show a growing trend in the prevalence of CAD and its risk factors. The number productive years of life lost due to CAD in India is projected to increase from 7.1 million in 2004 to 17.9 million in 2030. This may result in considerable economic losses. It is projected that heart disease, stroke and diabetes will lower the gross domestic product of India and Pakistan by 1% or more over the next 10 years and among the heart disease, CAD is the most common among adults 60 years old. (Nair, 2012)

The Gangalal National Heart Center reports that after CHD, which is most common cause of admission (37-43%), rheumatic heart disease (RHDs) (20-28%),hypertensive heart diseases (7-9%), arrhythmias (4-11%), congenital heart disease (4-7%) and infective endocarditic (0 .5-2.5) are other common cardiac ailments. (NCBI, 2011)

Internationally speaking, the world Health Organization (see Macky&Mensah, 2004) reports that CVD kills an estimated 17 million people annually around the world and ranks currently as the leading cause of death worldwide being responsible for one third of all deaths globally. CVD is an epidemic that is spread into developed

and undeveloped nations. Seventy five percent of all deaths attributable to CVD occur in the poorer regions of the world and this is predicated to increase. (WHO, 2004)

CVDs are the number 1 cause of the death globally more people die annually from CVDs than from any other cause. An estimated 17.7 million people died from CVDs in 2015, representing 31% of all global deaths. An estimated 7.4 million were due to coronary heart disease and 6.7 million were due to stroke. (WHO, 2017)

Heart disease and stroke statistics 2017 update : A report from the American Heart Association Circulation 2017, jan 25 : Cardiovascular disease (CVDs) accounts for approximately 800,000 deaths in United States (US), or one out of every three deaths. Among Americans, an average of one person dies from CVD every 40 seconds. Coronary heart disease (CHD) accounts for the majority of CVD deaths, followed by stroke and heart failure. More than 90 million Americans carry a diagnosis of CVDs. Although deaths due to CHD have declined over the past 10 years, CHD remains the leading cause of death in USA. An estimated 190000 US adults experience a heart attack each year. (AHA, 2017)

2.3 Implication of the Review for the study

The literature review has helped in my study in following ways:

-) To determine the topic.
-) To find out the objectives of the study and gap between different research papers.
-) To help to select proper research methodology to accomplish the study successfully.
-) To gain various ideas and knowledge about thesis.
-) To compare the old findings for the study with the present one.
-) To give reference to the future studies related to this topic.
-) To prepare questionnaire.
-) To know about the different variables responsible for the causes of CVDS.

2.4 Conceptual Framework

The conceptual framework focus on the independent variables such as age, heredity, biological factors and behavioral risk factors. These independent variables affect the intermediate variables like high blood pressure, high blood sugar level, abnormal lipids, tobacco use, alcohol consumption and physical inactivity which are highlighted on conceptual framework. Also awareness, health access, education, profession and poverty are considered as intermediate variables. The IEC are the variables which contribute to determine the level of consciousness which support all of us to improve our cardiovascular health practice.

Independent variables such as age heredity, biological factors and behavioral risk factors may differ from each individual. Similarly educational and awareness level of the person is an important indicator for the health status. These norms are perhaps the most important factor to ensure cardiovascular health. It is expected that the literate people have better knowledge on causes and preventive measures of communicable and NCD than the illiterate people. There may be other variables which are directly and indirectly associated with CVD and may also affecting on cardiovascular health.

Awareness, biological factors, behavioral risk factors and physical exercise play vital role on maintaining cardiovascular health. It is obvious that if we overcome these variables, the possibility of good cardiovascular health also increases.

Intermediate Variable -I

High Blood sugar Level

High Blood Pressure

Abnormal Lipids

CHAPTER- 3

RESEARCH METHODOLOGY

Introduction

Research methodology is a way to systematically solve research problem. This section describes the research design study area (population), sample design tools of data collection, process of data collection and processing and analysis techniques in details. Research methodology facilitates the research work and provide reliability and validity to research. Methodology employed in this research is present below:

3.1 Research Design and Method of Study

The research design means the framework of the study. In order to achieve or attained detail information about any subject matter or to make any program successful, we need to have deep and wide study on that concerned sector field. Therefore this research was based on descriptive design in it's nature.

3.2 Source of Data (Population sample and sampling strategy)

The study was conducted on the patients of Nobel Hospital's cardiac unit. The total population of this study were 55. The population was selected as a sample size by the help of purposive sampling procedure.

3.3 Study Area/Field

The area at the study was the cardiac ward at Nobel Hospital which is in Morang district. Morang is the district of Eastern Development Region and 1 no. Pradesh.

3.4 Data Collection Tools and Techniques

Primary and secondary both sources were used in this study. However interview schedule was the main tools of data collection of the study. The interview schedule had included both close and open type of question.

3.5 Data Collection Procedure

The required data and information for analysis will directly collected from the target population and secondary sources.

3.6 Data Analysis and Interpretation Procedure

After collection the necessary data was tabulated and kept in sequential order according to the purpose of the study. The data or information was converted simple mathematical terms. The required frequency and table was generated on the basis of collected data and objectives of the study. The data was analyzed through table's, percentage, pie-chart, and they were used for processing, analyzing and interpreting the results. Since this was a descriptive study the quantitative, information was interpreted and explained in detailed.

CHAPTER - 4

ANALYSIS AND INTERPRETATION OF RESULT

This chapter deals with analysis and interpretations of data collected from Cardic Ward of Nobel Hospital Biratnagar in Morang District. Presentation and analysis of data are with are presenting charts, figures and tables for making the study clearly.

This study highlights on different selected variables such as age heredity, biological factors and behavioral risk factors. Similarly high B.P. High blood sugar level, abnormal lipids, alcohol consumption, physical inactivity, poverty, occupation, health assess and many other things. Which are directly and indirectly related to CVDS.

4.1.0 Demographic Status

4.1.1 Educational Status

Education plays the crucial role to raising the quality of human. It is an important indicator of civilization for society. Education pays important roles and awareness against the diseases to prevent them in time.

Table No. 1 : Education Status of the respondents

S.N.	Status	Number	Percent
1	Illiterate	17	30.9
2	Primary	18	32.07

3	S.L.C.	8	14.5
4	+2	7	12.7
5	+2 Above	5	9.09
	Total	55	100

As shown in figure 30.9 percent people illiterate. 32.7 were primary level passed 14.5 percent SLC passed 12.7 were +2 passed 9.09 were passed above +2.

After analysis of this data it can be said that education is also responsible factors CVDS.

If People will be educated they will be a waved of themselves and will be conscious about their health of the uneducated people.

4.1.2 Age of Respondents

Age factor is one of the vital factor to determine the human life. It represents then different phase of human life. Different group of age has different significance in life of people.

Table No. 2 : Age of Respondents

S.N.	Age Group	Number	Percent
1	30-40	5	9.09
2	41-50	6	10.90
3	51-60	25	45.45
4	61-70	11	20
5	71-80	5	9.09
6	81 and above	3	5.45
	Total	55	100

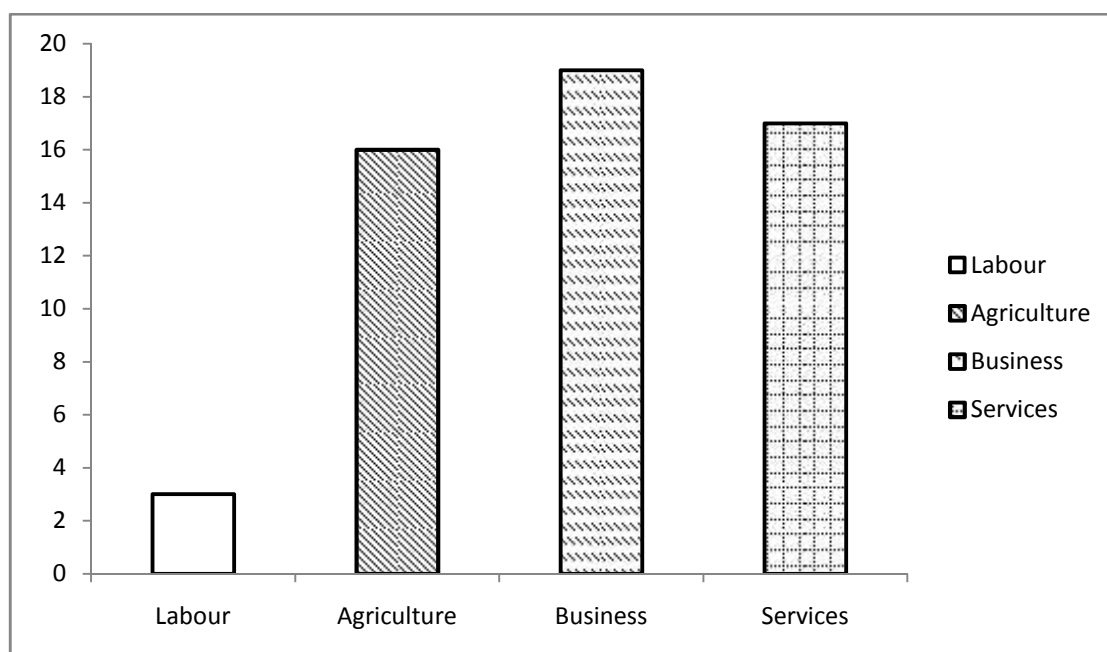
The above table shows the majority of people suffered from CVDS and 51 to 60 age group is about 45.45 percent and less is on age 81 and above is 3 is about 5.45

percent. Similarly 30-40 and 71-80 are same that is 9.09 percent, 41-50 is 10.90 percent 61-70 is about 20 percent from this table. It seems that CVDS goes on increasing as one gets elder. It is more prevalent between 40 plus and 70 years.

4.1.3 Occupation Status of Respondents

Occupational status is another important component to protect the health status of people. Higher the occupation status betters the health status. The occupational status of population indicates the level of development of country's total economy. The occupational status of the respondents is shown in figures 1.

Figure No. 1 :Occupational Status of Respondents



The above figure 1 shows that majority 34.55 respondents are engaged in business, 29.09 in agriculture, 30.91 in services and 5.45 is labour.

This table shows that economical condition of people is directly related to health access. As we all know treatment of CVDS is very expensive and all people suffered from this disease cannot have their access to it's treatment. This can be linked directly and indirectly by above figure no. 1.

From figure no. 1 it seems that the number of people doing labour as their occupation has admitted in less number compare to others. It doesn't mean that people

having low economical status are less suffering from CVDS or are in low risk of having CVDS. But it reveals the fact that the economical condition of an individual is directly or indirectly related to their health access.

4.1.4 Distribution of Religion

In society there are many people and they follow different religion. In same religion and tradition there is habit of doint helath hazards activities which affect the health of people.

Figure No. 2 : Distribution of Religion

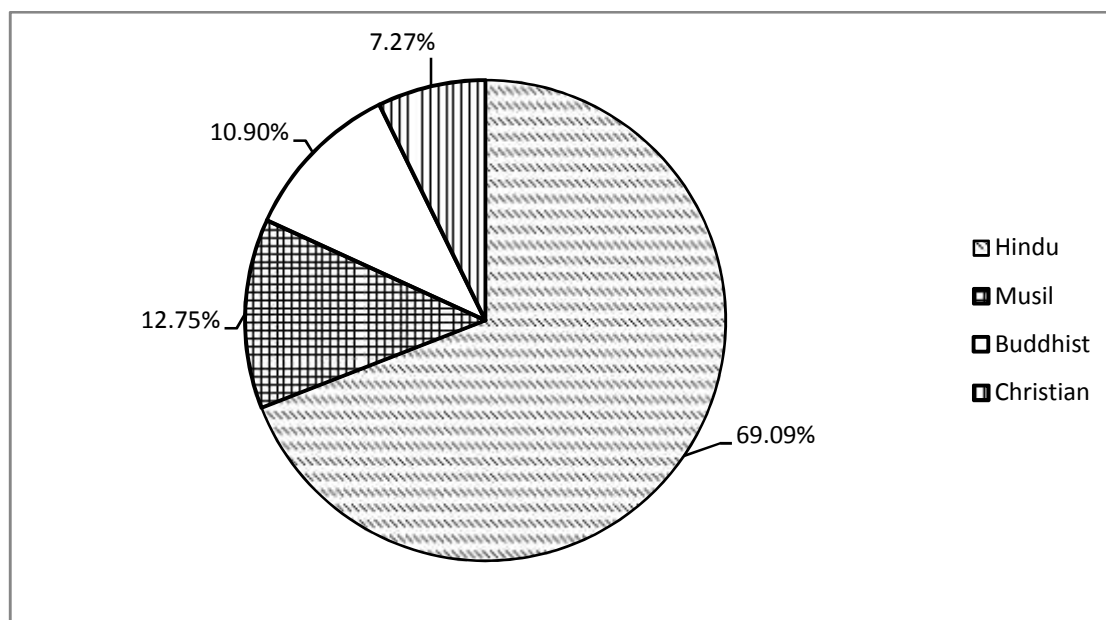


Figure No. 2 shows that the majority of responds are Hindu is 69.09 percent less are Buddhism is 7.27 percent, Muslim is 12.75 percent and Christian is 10.90 percent from this figure we can say that as majority of Nepal Citizen follow Hindu religion majority of Hindu is greater than other but it doesn't means that one of the religion is responsible for causing this disease and others are trying to prevent it.

4.1.5 Sex of Respondents

Sex represents to the gender in our country there is vast gender in equality. However this is trying to be overcome within coming time.

Table No. 3 : Sex of Responds

S.N.	Gender	Number	Percent
1	Male	32	58.18
2	Female	23	41.82
	Total	55	100

This table no. 3 shows that there are 58.18 percentage male patient and 41.82 percent female patient from this table we can say that male in compare to female get suffered from CVDS.

4.2.1 Respondents Belonging to Group

Here, responds are asked about their eating habits and they are classified as vegetarian and non-vegetarian.

Table No. 4 : Group of Vegetarian and Non-Vegetarian

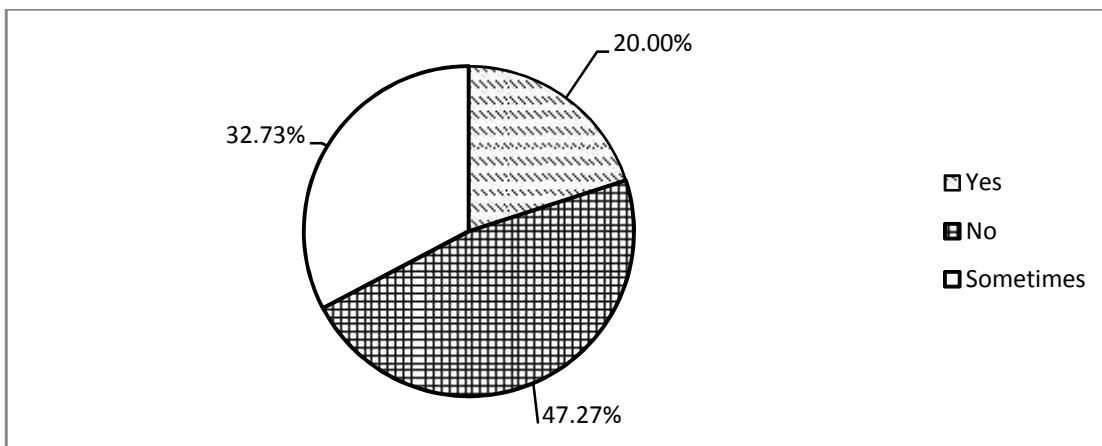
S.N.	Group	Number	Percent
1	Vegetarian	12	21.82
2	Non-Vegetarian	43	78.18
	Total	55	100

Table no. 4 shows that most of the responds are non-vegetarian are 78.18 percent and only 21.82 percent are vegetarian from this figure we can say that our eating habits is also responsible for causing CVDS. Along with this we it can be said that being vegetarian life style is good for health then non-vegetarian food habit.

4.2.2 Responds on physical exercise

Doing regular and light physical exercise is good for health. Now a days people follow very busy lifestyle and aren't so much conscious about health.

Figure No. 3 : Responds and Physical Exercise



From figure no. 3 it seems that 47.27 percent of majority never do physical exercise 32.7. percent of responds use to have sometimes and only 20 percent do regular physical exercise. This data shows that people are getting more lazy and aren't doing physical exercise from this it can be said that if people get conscious about their health and are motivated to have regular physical exercise the rate of CVDS many decreased.

4.2.3 Responds on Current Body Weight

To be healthy to get good health we have to be conscious about our body weight over weight and under weight both are problems so to be healthy we need to maintain our body weight according to BMI.

Table no. 5 : Responds Current Body Weight

S.N.	Body Weight Range	Number	Percent
1	40-50	3	5.45
2	50-60	16	29.09
3	60-70	29	52.73
4	Above 70	7	12.73
	Total	55	100

According to table no 5 majority 52.73 percent responds are of 60-70 kg. 28.09% are of 50-60 kg, 12.73% are above 70 kg and only 5.45% are 40-50 kg weight from these. It is clear that over and obesity is more responsible for causing

cardiovascular disease. A part from this it can be said that mainting our body weight will lowers the chances of getting CVDS.

4.2.4 Responds towards Family History of Diabetes.

Diabetes is a disease that occurs when your blood glucose also called blood sugar is to high. Blood glucose is main source of envergy and comes from the food we eat. Insulin is a hormone made by the pancreas helps glucose from food get into your cells to be used for envergy.

Table No. 6 : Responds toward family history ofdiabetes

S.N.	Group	Number	Percent
1	Yes	31	56.36
2	No	24	43.64
	Total	55	100

Table no. 6 shows that majority 56.36% of the responds in cardiac ward have family history of diabetes wehre as 43.64 don't have from this data we can say that prevention of diabetes is may lowers the chances of getting CVDS.

4.2.5 Diabetes in Blood Relation of Respondents

Diabetes is a communicable disease means it cannot be spread from one person to another. It is a disease that takes many years to develop but it can be hereditary.

Table no. 7 : Diabetes in Blood Relation of Respondents

S.N.	Group	Number	Percent
1	Mother	6	19.35
2	Father	11	35.48

3	Maternal Uncle	5	16.123
4	Paternal Uncle	7	22.58
5	Grandfather	2	6.45
	Total	55	100

Table no. 7 shows that among 55, 31 of them have family history of diabetes and among 31 of them 6 that is 19.35 percent have history of diabetes having to their mother 35.48 of history having to their father 16.12 percent in maternal uncle, 22.58 percent in paternal uncle and 6.45 percent in grand father.

4.2.6 Diabetes in Respondents

Diabetes is mainly of two types. Type 1 diabetes and type 2 diabetes. Type 1 diabetes is caused by immune system destroying the cell in the pancreas that make insulin. Whereas type 2 diabetes has several causes genetics and life style are the most important one. A combination of these factors can cause insulin resistance, when our body doesn't use insulin as well as it should.

Figure No. 4 : Diabetes in Respondents

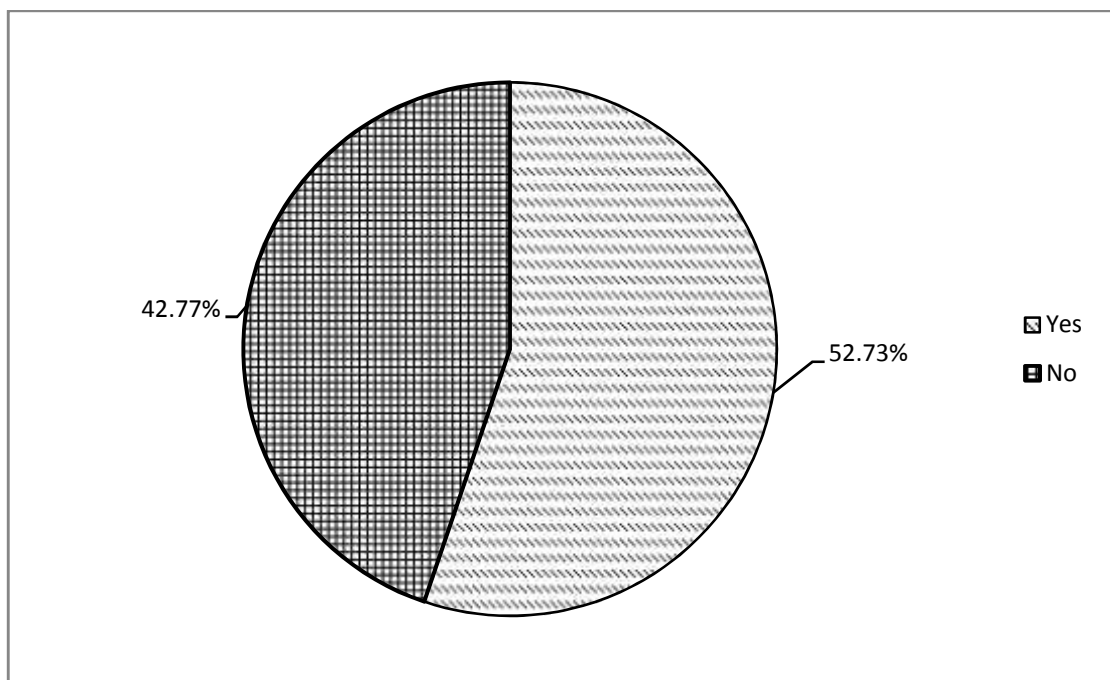
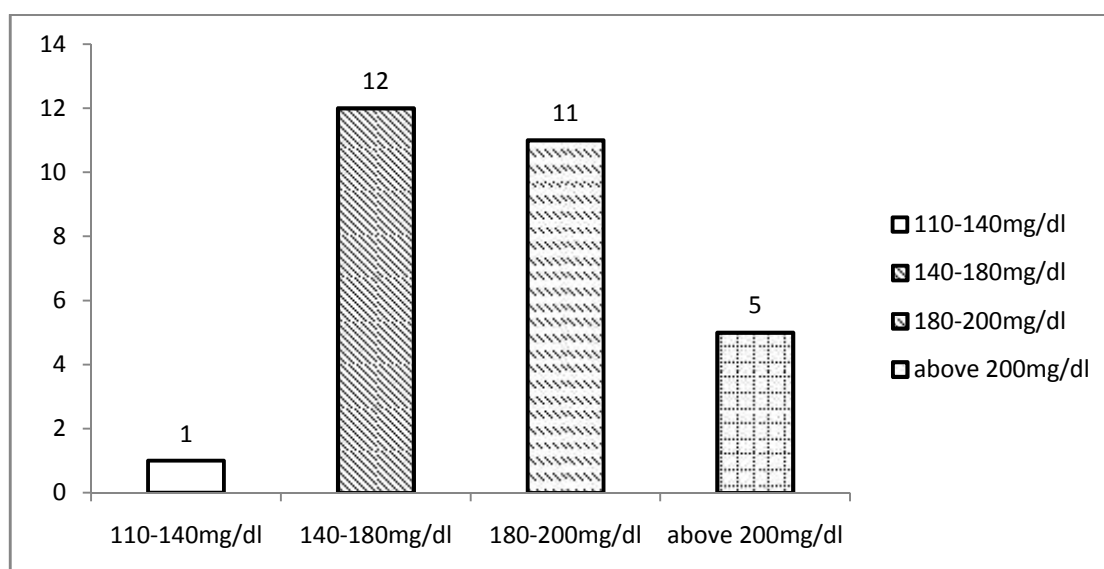


Figure no. 4 shows majority of responds that is 52.13 percent have diabetes to hem and 47.27 percent don't have from table no.6 56.36% of responds have mentioned that they have family history of diabetes but here only 52.73 percent have diabetes to them. From this figure we can say that only heredity isn't responsible for having diabetes although we have family history of diabetes we can control or prevent it by being conscious about our helath.

4.2.7 Diabetes Level in Respondents

A fasting blood sugar level less than 100mg/dl is normal. A fasting blood sugar level from 100-15 mg/dl is considered as prediabetes. If it is 126mg/dl to higher on two separete tests we are supposed to have diabetes.

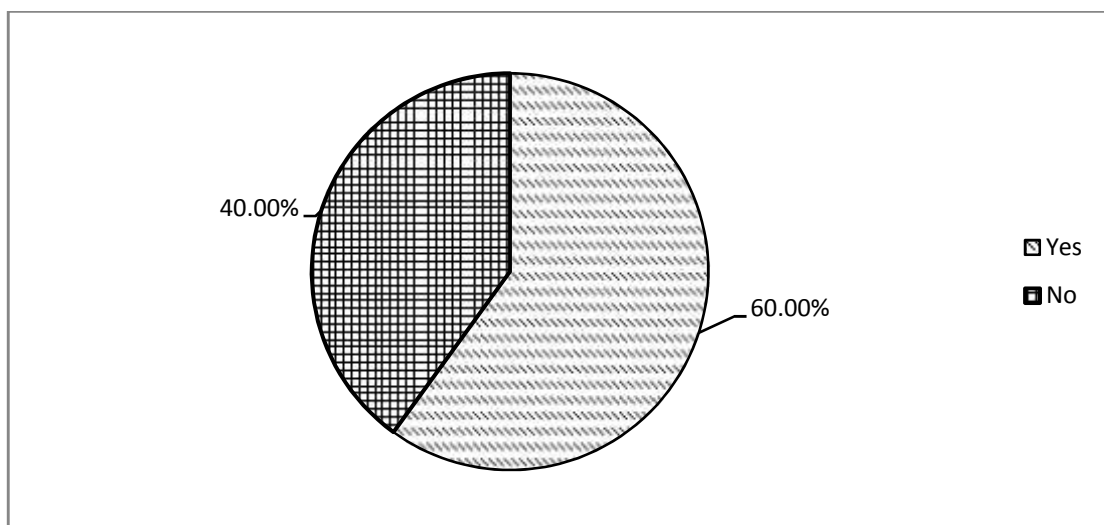
Figure No. 5 : Diabetes Level in Respondents



In figure no 5 it seems that total no. responds who has mentioned that they have daibetes are 29. Among them majority of responds that is 41.37% have 140-180mg/dl and only 3.45% have 110-140mg/dl diabetes from this figure we can say that higher the diabetes level, higher the chances of getting CVDS.

4.2.8 Family History of High Blood Pressure

A family history of high blood pressure is a risk factor you developing high blood pressure having one or more close family members with high blood pressure before age of 60 means you have two times the risk of having it also.

Figure No. 6 : Family History of High Blood Pressure

From figure no. 6 it seems that 60% of respondents have family history of diabetes and 40 percent haven't it. From this it can be predicted that high blood pressure is also one of the major causing factors of CVDS.

4.2.9 High Blood Pressure in Blood Relatives

High blood pressure is a well-known risk factor for heart disease. Besides many factors such as obesity, salt consumption, and alcohol intake, genetic factors play an important role in the development of hypertension.

Table No. 8 : High Blood Pressure in Blood Relatives.

S.N.	Group	Number	Percent
1	Father	9	27.27
2	Mother	7	21.21
3	Maternal Uncle	3	9.09
4	Paternal Uncle	6	18.18
5	Grandfather	5	15.15
6	Grandmother	3	9.09
	Total	33	100

As 60% that is 33 not respond that they have family history of hypertension among them 9 of them that is 27.27% of them have hypertension to their father 7 of them that is 21.21 of them have to their mother 3 of them that is 9.03% of them have to their maternal uncle 18.18% that is 6 of them have to their parental uncle, 5 of them that is 15.15% of them have to their grandfather and 3 of them that is 9.09% of them have to their grandmother.

4.2.10 Hypertension in Respondents

High blood pressure is also known as a silent killer. As we all know there are various causing factors of hypertension. We need to follow some preventive measures along with healthy life style, if we have history of high blood pressure in our family members then we'll have double chances of getting high blood pressure.

Figure No. 7 : Hypertension in Respondents

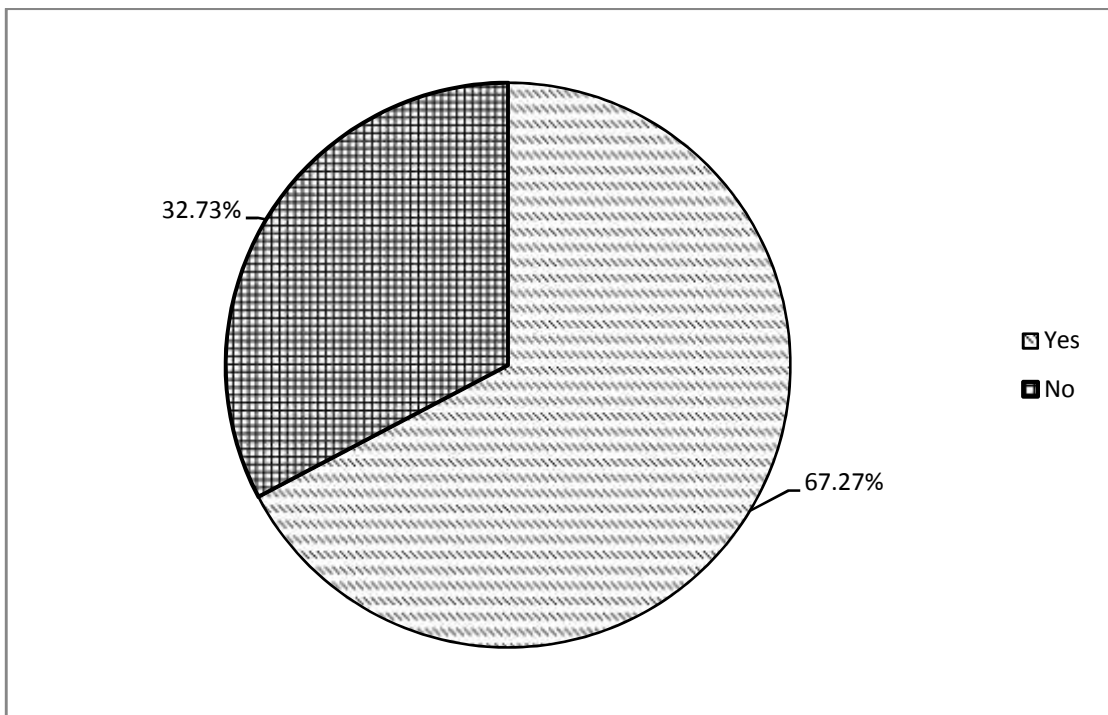


Figure no. 7 shows that majority of respondents that is 67.27% have high blood pressure and 32.73% of respondents don't have hypertension. In previous question relating to the family history of hypertension 60% of the respondents have told that they have family history of hypertension but here from figure no 7 it seems that 67.27% of respondents have hypertension to them which is greater than figure no. 6. From this it can

be said that only heriditical fctors isn't responsible for hypertension. it is caused by many other factors such as obesity salt, unhealthy life style and lack of physical exercise.

4.2.11 Level of Hyper tension in Respondents

Hypertension is known as a silent killer so it should be prevent as far as possible. If anyone is suffered from this disease, he/she should regulary visit to the doctor and follow helathy life style. Apart from this patient of hypertension should follow healthy diet too. If blood pressure is increased rapidly it may cause serious damage in our health.

Table No. 9 : Level of Hypertension in Respondents

S.N.	Group	Number	Percent
1	130/90-140/90 mmhg	12	32.43
2	140/90-150/90 mmhg	18	48.65
3	150/100-170/100 mmhg	6	16.22
4	above 170/100mmhg	1	2.70
	Total	37	100

Table no. 9 shows that 32.43% of respondents have 130/90-140/90 mmhg, 48.65 of them 140/90-150/90 mmhg, 16.22% of them have 140/100-170/100 mmhg and 2.70 of them have above 170/100 mmhg.

This table shows that as we have high blood pressure, we'll have chances of getting CVDS and many chronic disease more than others do.

4.2.12 High Cholesterol Respondents

High Cholesterol is one of the risk factors that can lead to atherosclerotic cardiovascular disease (ASCVD) including heart attack, stroke and peripheral artery disease.

Figure No. 8 : High Cholesterol In Respondents

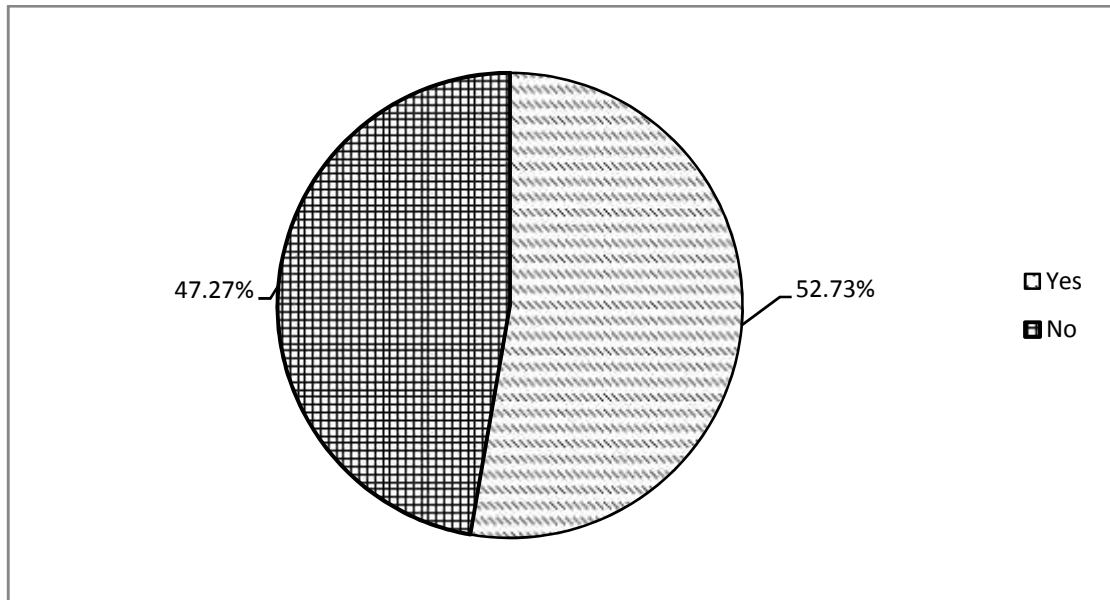


Figure No. 8 shows majority 51.73% of respondents have cholesterol to them and 47.25% haven't cholesterol. This might be my following unhealthy life style, unhealthy eating habits and lack of physical exercise.

4.2.13 Level of Cholesterol in Respondents

These days we are following very busy life style and we aren't concentrate about health. Apart from these we should know our cholesterol level in blood so that we may be aware of its risk factors cholesterol level less than 200mg/dl are considered desirable for adults A reading between 200 mg/dl and 23 mg/dl is considered borderline from 240mg/dl and over is known as high.

Figure No. 9 : Level of Cholesterol in Respondents

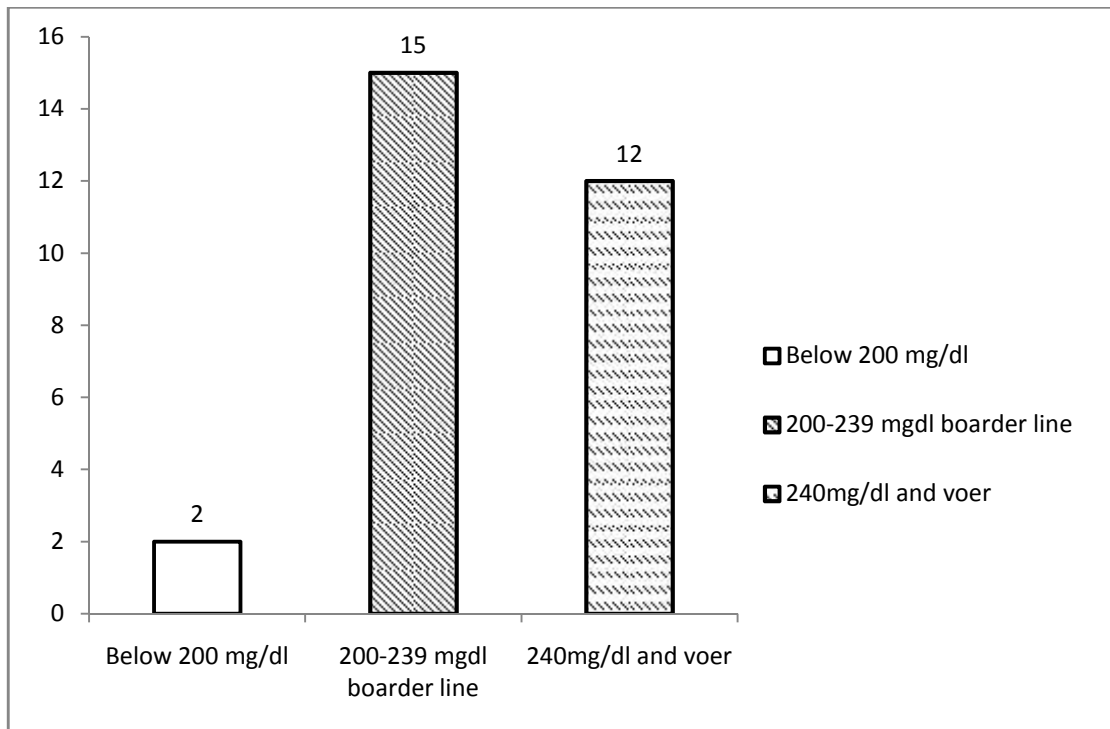


Figure no. 9 shows that only 6.90% of the respondents have normal cholesterol level where as 51.72 have in borderline that is from 200 -239mg/dl and 41.38% of them hae high cholesterol that is 240mg/dl and over.

The forementioned information reveals that high level of cholesterol is also responsible for causing CVDS as higher risk of CVDS there will be.

4.2.14 Triglycerides Level in Respondents.

Trilycerides are a type of fat (lipid) found in our blood. Triglycerides are stored in our fat cell. Having a high level of trigly certides may raise the risk of heart disease.

Figure No. 10 : Triglycerides Level in Respondents

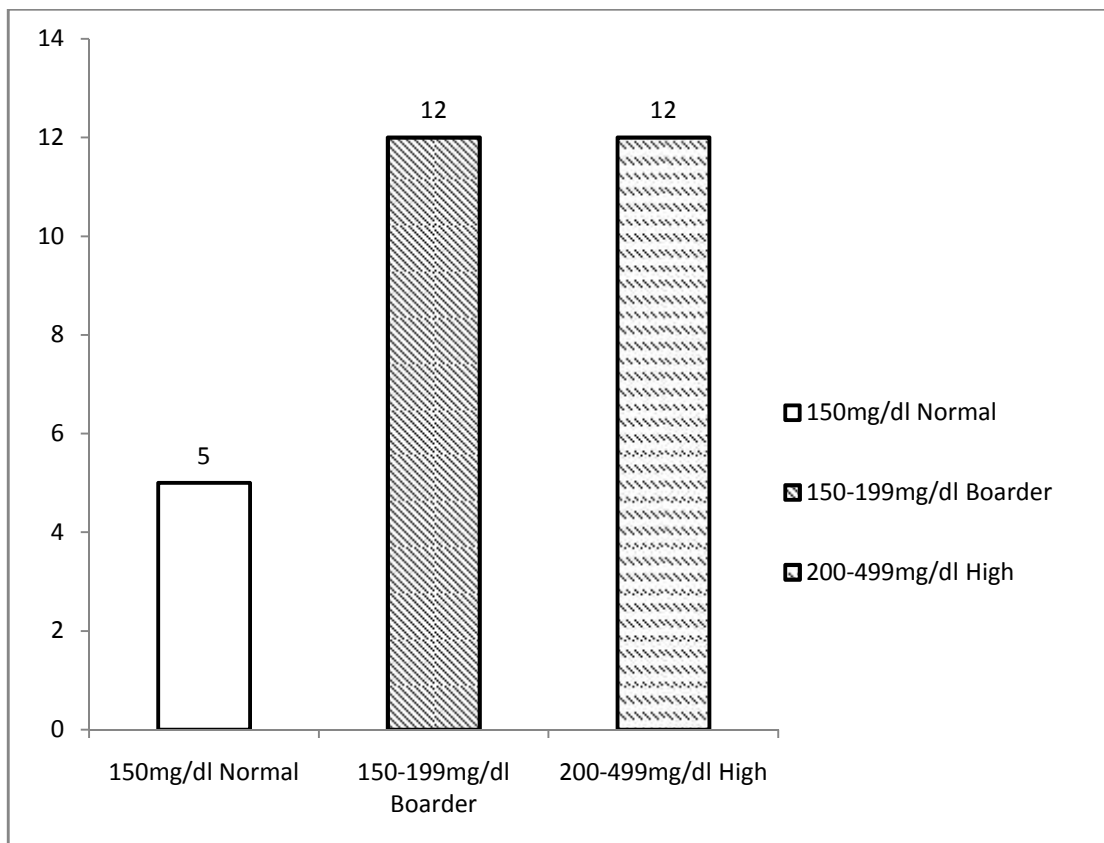


Figure no. 10 shows that 41.38% of respondents have high triglycerides level that is 200-499mg/dl save 41.38% of respondents have in border line that is 150-199mg/dl and 7.24% of them have normal triglycerides level.

4.2.15 Habit of Tobacco consumption in respondents

Consumption of tobacco/smoking increased the health risks. Smokers are more likely than non-smokers to develop heart disease, stroke and lung cancer.

Smoking and inhaling tobacco is really injurious to our health, however people continue its consumption

Figure No. 11 : Habit of Tobacco Consumption in Respondents

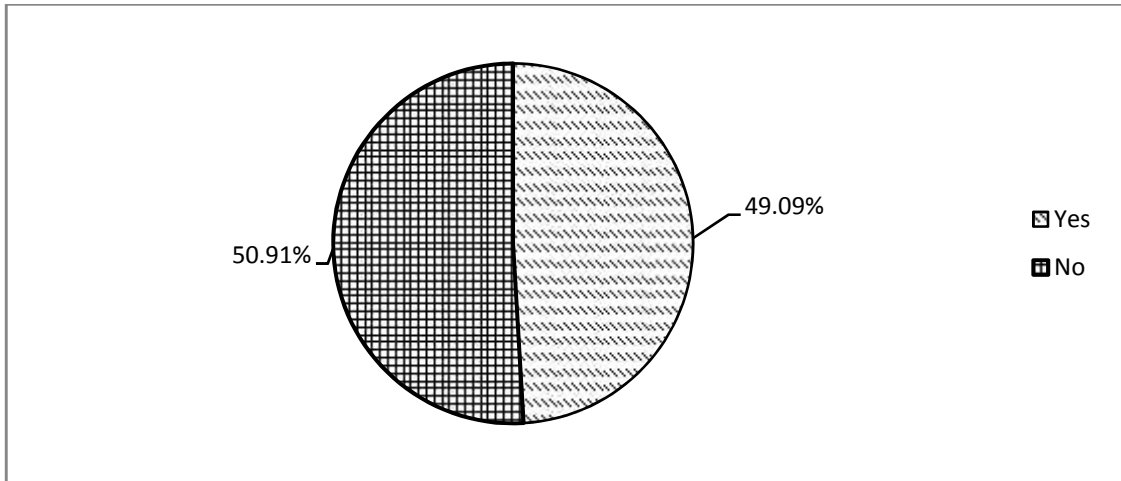


Figure no. 11 shows that majority 50.91% respondents don't consume tobacco and its product whereas 49.09% of them consume it.

This figure shows that people are leaving the habit of tobacco consumption. It might be due to awareness programmes. However, it should be fully eradicated for better health.

4.2.16 Responds on Drinking Alcohol

An alcoholic drink is a drink that contains ethanol, a type of alcohol produced by fermentation of grains, fruits and other sources of sugar. Some medicines also may contain a little bit of alcohol, but taking it in large amounts and regularly is not good for health.

Figure No. 12 Responds on Drinking Alcohol

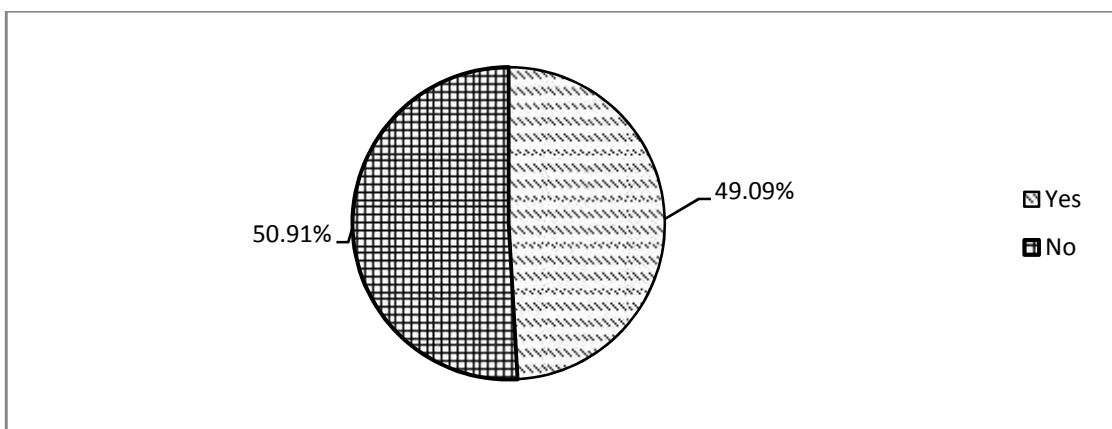


Figure No. 12 shows that majority 50.91 of responds don't take alcohol wher as 49.09% of them take it. This figure shows that people are getting aware of their health and are learning the habit of consuming alcohol.

4.2.17 Habit of Alcohol

As it is well known consumption of alcohol is injurious to health. Some of us can't controlled our selves from taking it. Here amongh 55 of 27 respondents have mentioned that they consume alcohol.

In below table it is shown how frequent they use to take it.

Table No. 10 : Habit of Taking Alcohol

S.N.	Group	Number	Percent
1	Regularly	19	70.37
2	Occasionally	8	29.63
	Total	27	100

Table no. 10 shows that majority 70.37% respondents regularly drink alcohol and 29.37% occasiionally drink it.

From this it can be said that regular use of alcohol is injurous helath and this should be avoided for good health.

4.2.18 Respondents choice on Drinking Alcohol

As well all know taking alcohol effects our health and social life too. It if is consumed to excess, if can affect all areas of a person's life as well as the lives of their family and friends.

Table no. 11 : Respondents Choice on Drikning Alcohol.

S.N.	Group	Number	Percent
1	Soft (Bear)	7	25.93
2	Hard (Whisky)	11	40.74
3	Mild (Wine)	2	7.40
4	Local Alcohol	7	25.93
	Total	27	100

Table no. 11 shows that majority 40.74% respondent take hard drinks, 25.93% take soft (Bear) again 25.93 take local alcohol and 7.40 take mild that is wine.

From this can be assumed that hard drinks such as whisky is more dangerous that other drinks where as non-of the alcohol are helathy for our helath.

4.2.19 Famaliar About Heart Attack

A blockage of blood follow to the heart causes a heart attack, which can damage or destroy heart muscle, although heart attack is getting epide mic. It is out of limelight and people aren't conscios about it.

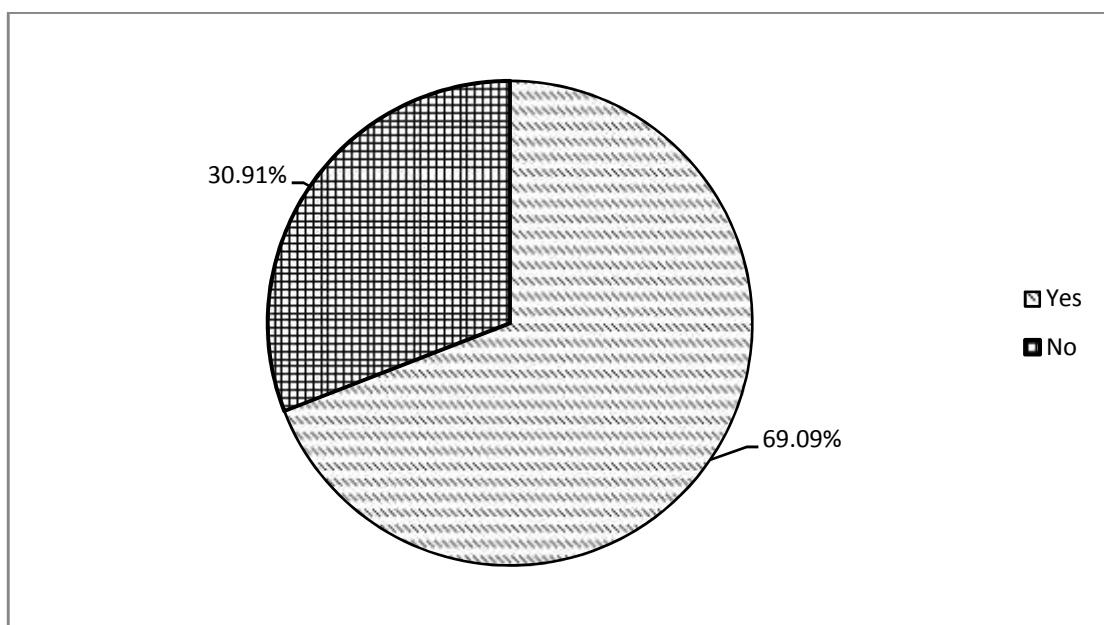
Figure 13 : Famaliar About Heart Attack

Figure no.13 shows that majority 69.09% of respondents have already heard about heart attack where as 30.91% haven't heard about it.

From figure no.12 it seems that although heart attack is getting epidemic and is the leading causes of death many people doesn't know about it and people who knows even are unconscious about it.

4.2.20 Family History of CVDS in Blood Relatives.

Genetic factors are likely to play some role in high blood pressure, heard disease and other related conditions, However, it is also likely that people with a family history of heart disease share common environments and other potential factors that increase their riskl

Figure No. 14: Family History of CVDS in Blood Relatives

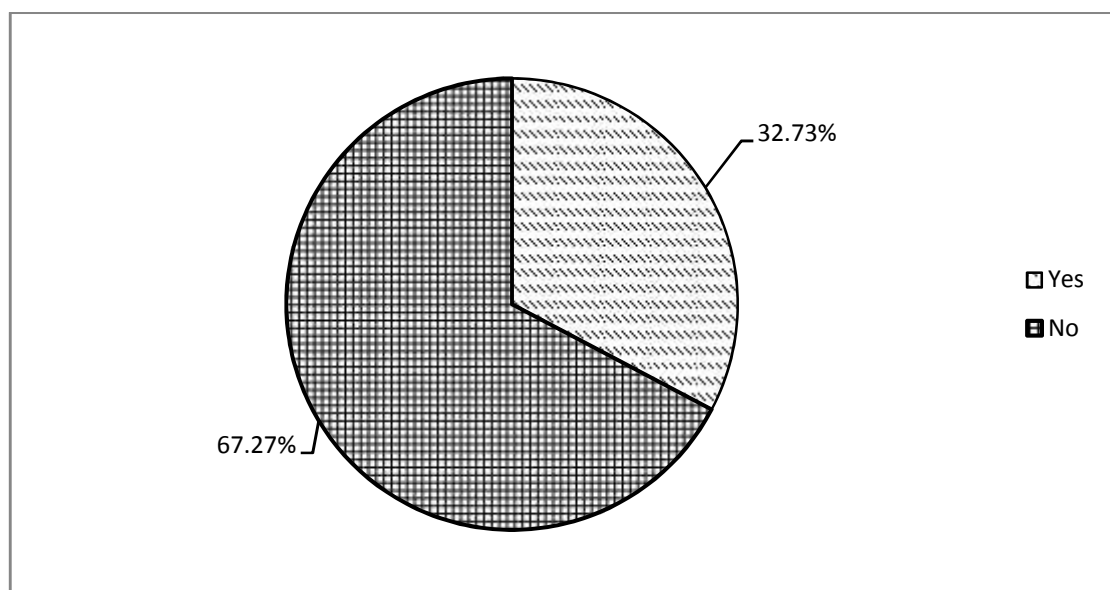


Figure no. 14 shows that majority 67.27% respondent don't have family history of CVDS in their blood relatives wher as 32.73% respondents have family history of CVDS in blood relatives.

From figure no. 13 its seems that only family history of having CVDS is not a single factor that is responsible to cause CVDS however they are suffered from it and at the same time it doesn't mean that ther eis no risk those who have family history of CVDS. People having family history of CVDS are at high risk of getting it.

4.2.21 Family Hisotry of CVDS to Particular Blood Relation

Just because your family has a history of cardiovascular disease, doesn't mean that you will certainly have the same diseases, it just mean that you are more likely to have them.

Figure no. 15 : History of CVDS to Particular Blood Relation

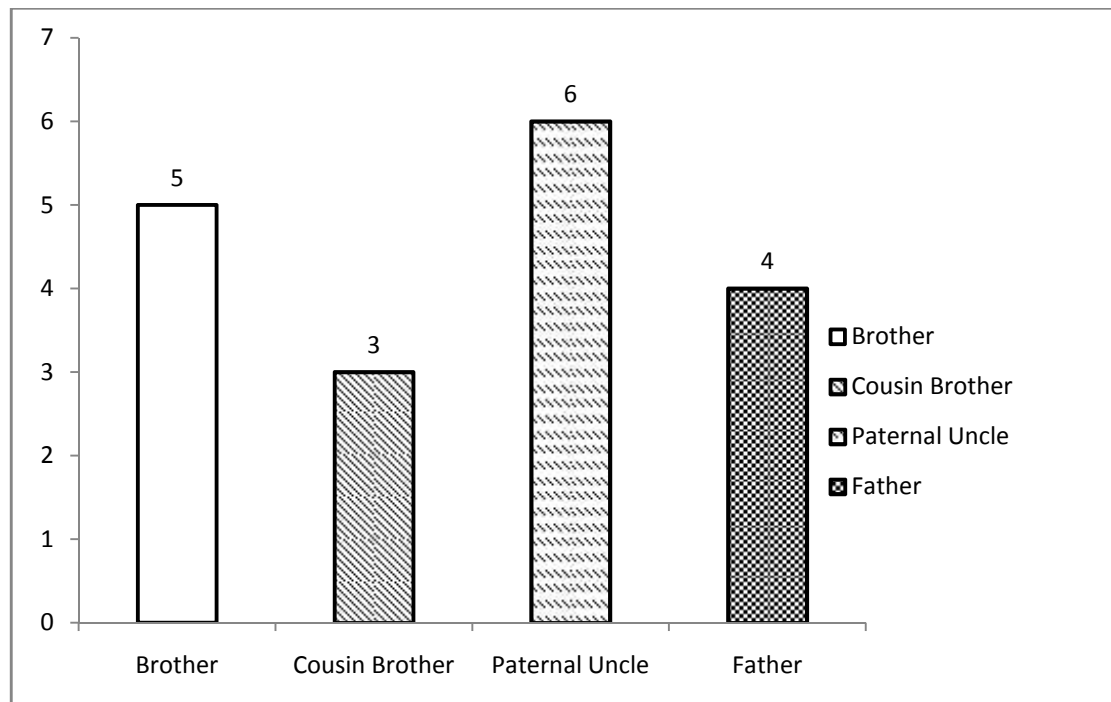


Figure no. 15 shows that majority 33.33% respondents having family history of CVDS to their blood relatives have history of having CVDS to their paternal uncle, similarly 22.22 of them to their brother and 16.66% to their cousing brother.

From figure no. 15 it seems that although it may be our father, grand father, brother, mother, cusin brother or any of blood reletives suffered from CVDS we are likely to have risk of CVDS more than other do.

4.2.22 Knowledge About the Cause of Heart Attack

In this time many people are inreached with media and other health facilitaties. In which they may heard or get chance to look some documentaries about heart attack which might help them to learn the causes of heart attack. Here, figure no. 15 is about the respondents who have resonds about causes of heart attack.

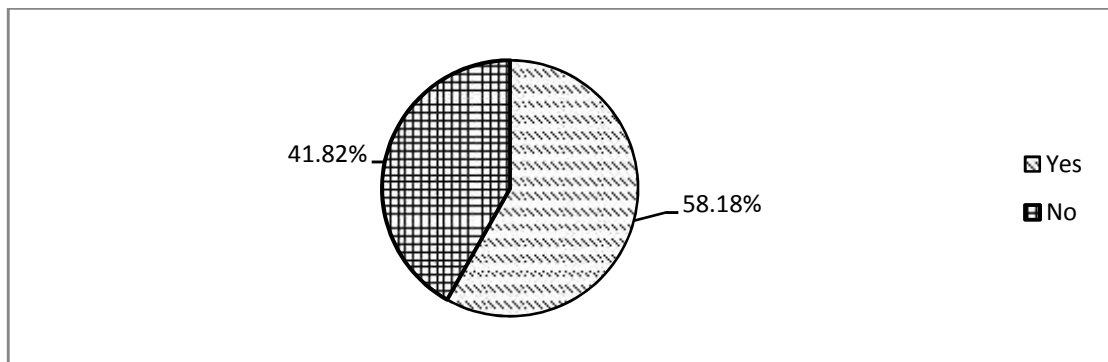
Figure No. 16 : Knowledge About the Causes of Heart Attack

Figure no.16 shows that majority 58.18% of respondents know the causes heart attack wher as 41.82% of respondents don't know about it.

From this figure no.16 this can be said that although majority of respondents were well known about the causes of heart attaack ritter they are unconsius about hteir health or they don't know proper cause that's why they've suffered from it.

4.2.23 Perception of Responds on the Causes of Heart Attack

A heart attack occurs when one or more of our coronary arterles become blocked over time a coronary arteries can narrow from the buildup of various substances, including cholesterol. This condition is kwon as coronary artery disease, causes most hert attacks.

Table No. 12 : Perception of Responds on the Causes of Heart Attack

S.N.	Group	Number	Percent
1	Having Stressful life	1	3.13
2	Not having physical exercise	2	6.25
3	Unhealthy diet and excessive alcoholism	5	15.63
4	Chronic disease of heart	6	18.75
5	Sudden good or bad news	0	0
6	All above	18	56.25
	Total	32	100

Table no. 12 shows of he respondents said the cause of heart attack as suden good or bad news, 18.75% of respondents said chronic disease of heart as he main cause of heart attack, 15.63% of respondents said causes of heart attack is unhealthy diet and excessive alcoholism, 6.25% of them said it's cause as not having physical exercise, 3.13% said having stressful life where as majority 56.26% said the causes of of heart attck is all of them above mentioned option.

From table no. 12 it seems that respondents who have respond as they know the causes of heart attack among them majority of respondents know the causes even though they get suffered from it therefore we can say we are un consicious towerds our healt and don't follow any of the preventive mesures.

4.2.24 Respondents knowledge on symptoms of Heart Attack

Symptoms of heart attack may from individual to individual we can't say if a person a had mention the symptoms which happen to him would probably happen to other that's why we need to be extra careful and active and consicious about our health.

Figure No. 17 : Respondents Knowledge on Symptoms of Heart Attack

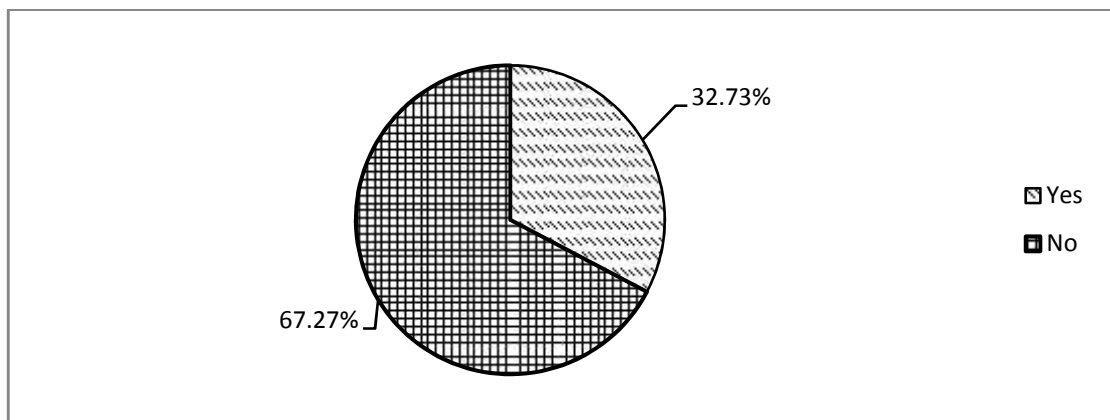


Figure no. 17 shows majority 67.27% of respndents are unaware of symptoms of heart attck where as 32.73% of respondents know the symptoms of heart attack.

From this figure no.17 we can say that only few people know the sysmptoms of this disease and awareness against this disease is not sufficient so, until and we

aren't aware, and the awareness program for public isn't done the rate of this disease is likely to rise up.

4.2.25 Symptoms of Heart According to Respondents

As some of them respondents have mentioned that they know the symptoms of heart attack. Here figure17 is represents their answer on the symptoms of heart attack.

Figure No. : 18 Symptoms of Heart Attck According to Respondents

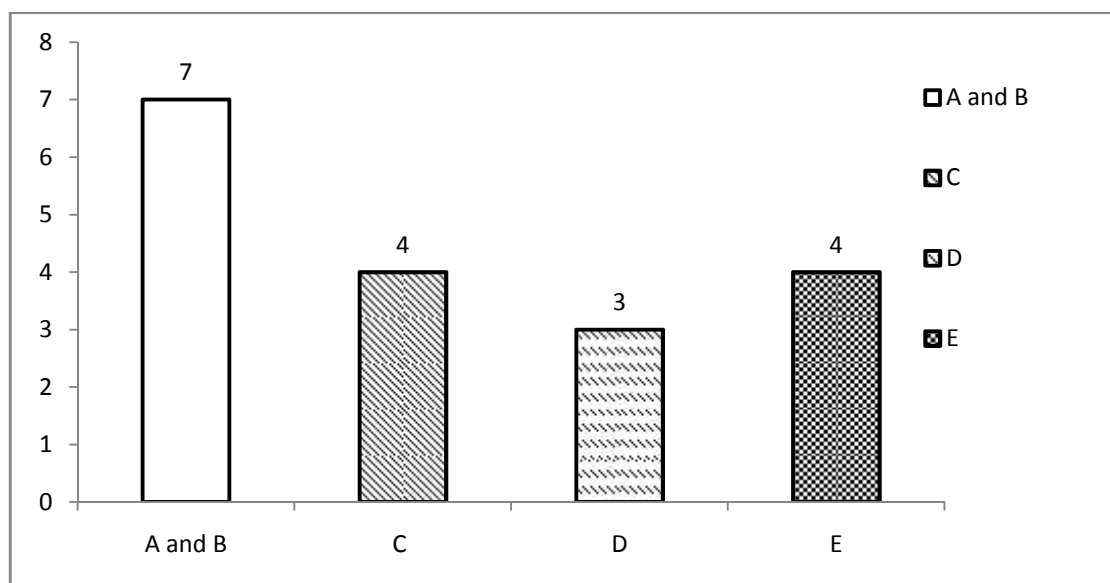


Figure no.18 shows majority of respondents 38.99% have said that the symptoms of heart attack are both mild or intense pain or discomfort in chest and shortness of breath and pale skin. 22.22% said nausea unusual tiredness and sweating 16.67% said pain in both soulders and jaw and 22.22% said all of them.

From figure no. 18 it seems that among the respondents mantioned that they know the symptoms of heart attack that is 18 out of 55 all of them know thesymptoms either one or more them one. This shows they are getting treatment in time because they knew the symptoms.

4.2.26 Preventive Measures of Heart Attack

Non-communicable disease (NCD)s constitute a major global health challenge, hampering nations, economic growth and sustainable development. Every year non-communicable disease is raising up so to prevent or reduce on

communicable disease reducing the major risk factors for non communicable diseases (NCD)s such as tobacco use, physical in activity, unhealthy diet and the marmful use of alcohol should be focused.

Figure No. 19 : Preventive Measure of Heart Attack

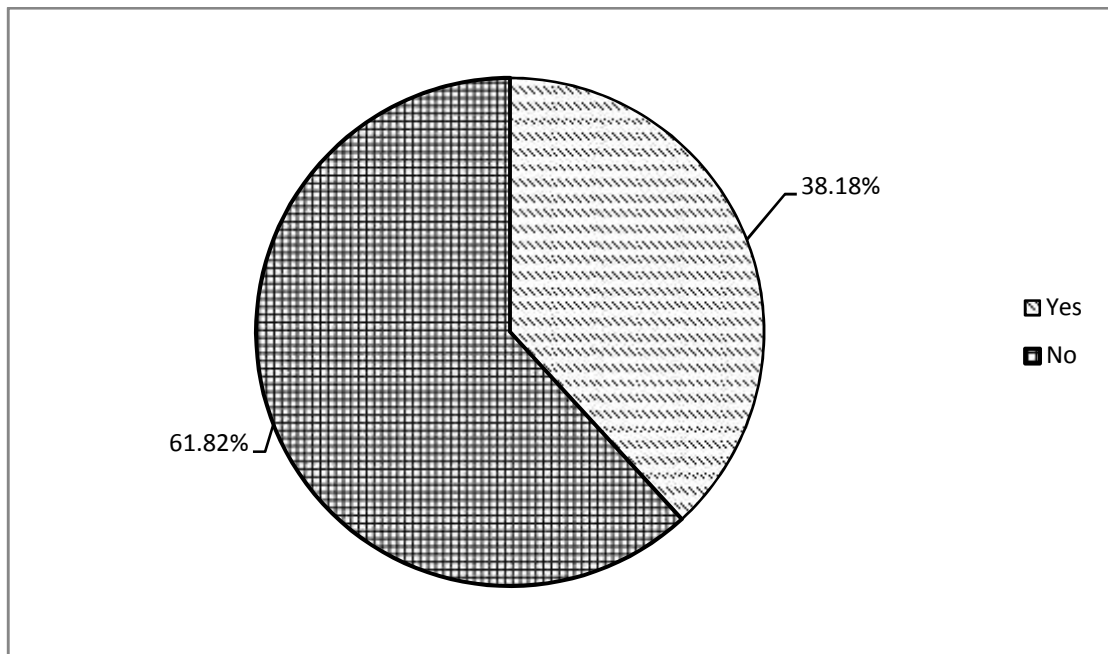


Figure no. 19 shows majority of respondents 61.82% don't know the symptoms of heart attack where as 38.18% of respondents knew it.

From this figure we can say that government and all the private and non governmental organizations should work together to minimize the NCDS such as heart attack. If preventional programe for such NCDS are done through awareness compaign they only it can be prevented otherwise it'll be epidemic.

4.2.27 Preventive measures of Heart Attack According to Respondents

Although most of the respondents are unknown about the preventive measures of heart attack this part deals with those respondents who knew about the symptoms of heart attack.

Table No. 13 : Preventive Measures of Heart Attack According to Respondents

S.N.	Group	Number	Percent
1	Having Healthy diets and avoiding alcoholism and tobacco	2	9.52
2	Maintaining blood pressure and blood cholesterol	11	52.38
3	Limiting high calorie intake and having regular physical exercise	2	9.52
4	All above	6	28.57
	Total	21	100

Table no. 13 shows that majority 52.30% respondents have mentioned that preventive measure of heart attack are mainting blood pressure and blood cholesterol and limiting high calorie intake and having regular physical exercise where as 9.52% have said having healthy diets and avoiding alcoholism and tobacco again same 9.52 respondents have save the preventive measures of heart attack is meditation and yoga, and 28.57% of respondents have said all of above.

4.2.28 Availibility of Cardiac Center or Hospital in Locality

Health care services in Nepal are provided by both public and private sectors but both of them are focused to urban areas only. Access to health care plays vital role on both can following communicable and non-communicable disease. There is no access to health services for rural areas and superstitions and ignorance are high in this are. So to minimize the risk of heathl and risk of dying without treatment health access should be provided to rural areas as well.

Table no. 14 : Availability of Cardiac Center or Hospital

S.N.	Group	Number	Percent
1	Yes	8	14.55
2	No	47	85.45
	Total	55	100

Table no. 14 shows majority 85.45% of respondents don't have hospitals near their locality where as 14.55% of respondents have hospital near their locality.

From table no. 14 it seem that all the well faciliated hospitals are focused to urban areas only and most of the people haven't access to health care. Although 85.45% of respondents in this cardiac unit haven't hospital. In their locality they can easily get vehicles and can reach hospital at time but it doesn't mean all are such lucky most of patients of heart attack die without getting treatment because of the unavailability of hospital near by them.

4.2.29 Being Update About own Health Status

Regular health checkups can help us to be updated about our own health status. It can help find potential health issues before they become a problem. When we visit doctor regular they are able to detect our health conditions or disease early. By getting the correct health services screenings and treatment we can take important steps toward living a longer, health their life.

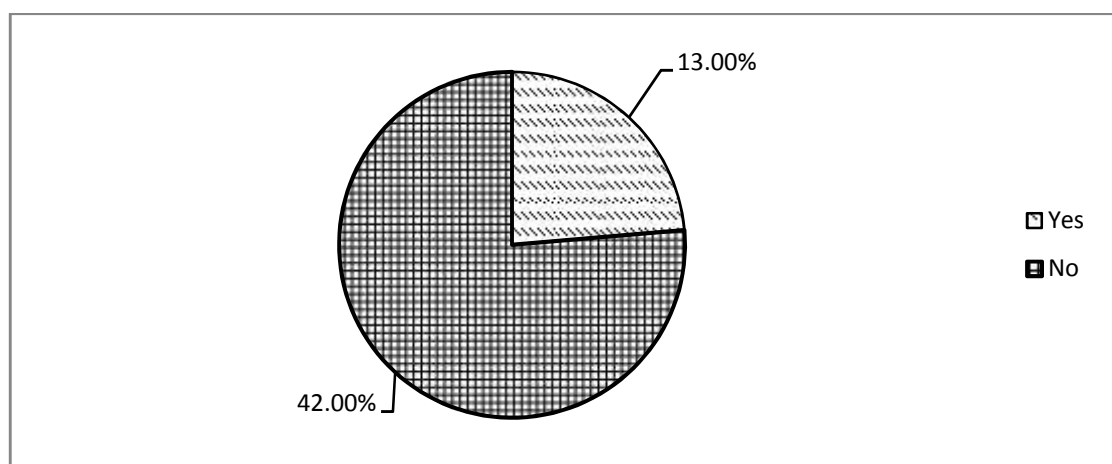
Figure No. : 20 Being Updated About own Health Status

Figure no. 20 shows majority 76.36% of respondents are not conscious about their health or they haven't hospital in their locality and they didn't go far for their regular health checkup wher as 23.64% of respondents have regular health checkup.

Having regular health chekcup at least once in sic month or even a year helps us to know about our health condition and if there is any risk factor or problem we can be aware about it. From figure 19 its seems that people are still unconscious about their health so they should be motivated for their regular health checkup.

4.2.30 Respondents Visiting Doctors

As it is already mentioned that regular health checkup help us to know about our helath condition and is equally reponsible for preventing us of dangerous condition. This part deals with the respondents who mentioned to have regular health checkup.

Table no. 15 : Respondents Visiting Doctors

S.N.	Group	Number	Percent
1	Once in a month	3	23.08
2	Once in a two month	8	61.54
3	Once in a six month	2	15.38
4	When needed	0	0
	Total	13	100

Table no. 15 shows majority 61.54% of respondents visit doctor once in a six months, 23.08% visit once in a two month and 15.38% visit when needed.

Table no. 15 is related to those respondents who have mentioned they regularly visit doctor although they have mentioned this from table no 15 it seems that only few people regularly visit to doctor rest of them visit when they feel uncomfot or unwell and feel they need doctor's help.

4.2.31 Responds on Keeping Medicines for Emergency Situation

If any of us is suffering from high blood pressure, high blood sugar and high chole sterol. It is better to keep emergency medicine with prescription of doctor. How ever many of us are unaware about it and we neve think that such situation can came in our life and we'll get suffered.

Table no. 16 : Responds on Keeping Medicines for Emergency situaiaion

S.N.	Group	Number	Percentage
1	Yes	0	0
2	No	55	100
	Total	55	100

Fromtable no. 16 it seems that none of the respondents have kept medicine for emergency situation

This table no. 16 shows that not only respondents hardly keep medicine for emergency.

4.2.32 Types of Medicine to be Kept for Emergency

Keeping medicine for evergemcny may help us to reach hospital and get proper treatment as we all know most of the heart attact patient die with out getting treatment or before they reach hospital. If the person gets emergency medicine chance of survian increases.

Table no. 17 : Types of Medicine to be kept for Emergency

S.N.	Group	Number	Percent
1	Aspirin	0	0
2	Thrombolytic, Anti platelets agent or other blood thinning mediators	0	0
3	Pain Relievers, Nitro-glycerine beta blocker of ACE inhibitors	0	0
4	All of above	0	0
	Total	0	0

Tale no 17 shows although people have high blood pressure, high blood sugar and high clolesterol they aren't keeping medicine for emergency which means they all are unaware or had not get proper consultancy from health cave provider.

4.2.33 Duration of Being in Hospital

Sometimes recovering from a heart attack can be a long process and having a heart attack does mean patient need to make some changes in their life as they should rest before they get ti tired. The first 24-48 hours after a heart attack may be the most unstable period and in this period patient is often treated in a coronary care unit (CCU) a specialized intensive care out for heart patient in an a cute medical ward where heart function can be monitored closely.

Table no. 18 : Duration of Being in Hospital

S.N.	Group	Number	Percent
1	Two-Three days	11	20
2	Three-Five days	31	56.36
3	Five-Seven days	8	14.55
4	More than a week	5	9.09
	Total	55	100

Table no 18 shows that majoriti of the respondents 56.36% were there from three five days 20% of them were there from two three days, 14.55% of them wher ether from five seven days and 9.09% of them where there from more than a week.

From table no. 18 it seems that most of the patient get discharged after a week but in some cases they might stay back more than a week and a long with this table shows the flow of patient is running aways which indicates everytime the patient of CVDS is coming there.

4.2.34 Feel After Treatment

Treatment for heart attack patient include medication life style changes and in somechases srugical procedures, sometimes doctro may also run some diagnostic tests to determine how much patient's heart is damaged and what degree of coronary artery disease he/she have.

Table no. 19 Feel After Treatment

S.N.	Group	Number	Percent
1	Feeling better	12	21.82
2	Not so good	0	0
3	None of above	43	78.16
	Total	55	100

Table no. 19 shows majority 78.18% of respondents feel nothing, they don't feel good and bad too where as 21.82% of respondents were feeling better.

4.2.35 Aware of the Risk if Medicine not Taken

All the patient should be aware about the risk factors if they forgot to take medicine in hospitals they should be motivated and aware to take medicine regularly.

Table No. : 20 Aware of the Risk if Medicine not Taken

S.N.	Group	Number	Percentage
1.	Yes	0	0
2.	No	55	100
	Total	55	100

Table no. 20 shows 100% means all the respondents are unaware about the risk factor if they forgot to take medicine.

From table no. 20 it seems that special motivation and awareness class after the treatment for taking medicine regularly is needed. Otherwise, patient will neglect to take medicine on time.

4.2.36 Action After Forgotten to Take

As it is already mentioned that motivation and awareness class for taking medicine regularly should be provided by medical personality so that all patients sincerely take their medicine.

Table no. 21 : Action after forgotten to Take Medicine

S.N.	Group	Number	Percent
1	Consult with doctor	7	12.73
2	Leave them there after	2	3.64
3	Take double does not time	3	5.45
4	None of above	43	78.18
	Total	55	100

Table no. 21 shows majority 78.18% of respondents had mentioned that they'll do nothing if they forgot to take medicine where as 12.73% respondents had mentioned that they will consult with doctor, 3.64% said they'll leave them there after and 5.45 said they will take double dose next time.

From this table it seems that majority of respondents aren't conscious about taking medicine which may hamper their health so to motivate patient for taking regular medicine we should give some awareness class to patient and their caretakers too.

4.2.37 Respondents Taking Vitamins, Herbal Supplement or Specific Food

Flaxeed is a fabulous plant-based source of omega -3, fatty acid, linked to lower risk of heart attack, heart disease and stroke. Omega-3 fatty acid help raise HDL cholesterol, the good cholesterol that protects against heart attack and stroke. Studies snow that oact and outmean have many health benefits. These include weight loss, lower blood sugar levels and reduced risk of heart disease.

Figure no. 21 : Respondents Taking Vitamins Herbal Supplement or Sepsific Food

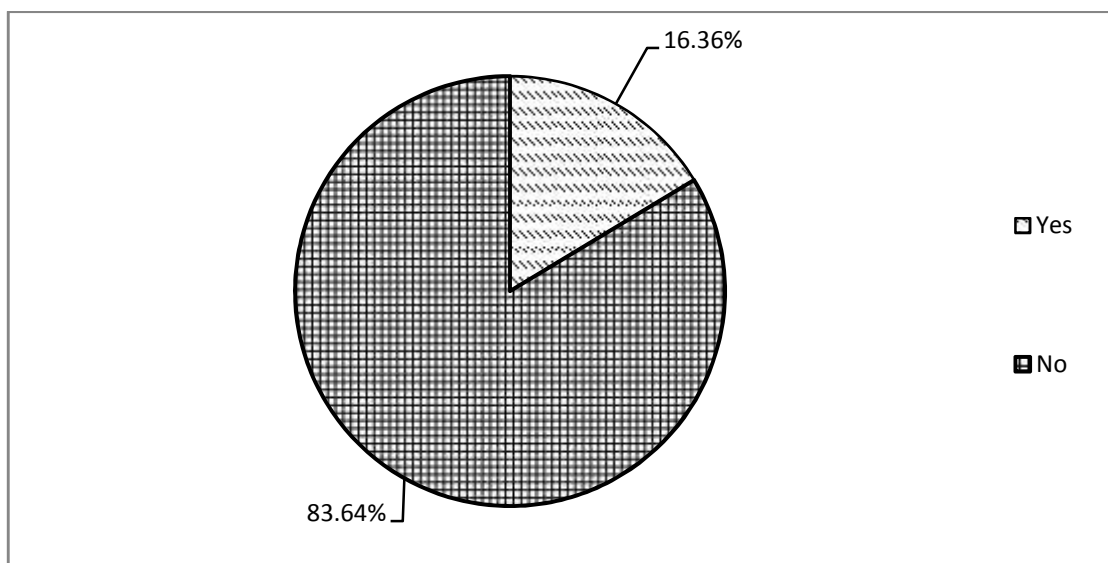


Figure no. 21 shows that majority of respondents didn't use any supplement food or vitamins where as only 16.36% of respondents wer etaking such supplements food or vitamins.

From this fiture no. 21 it seems that if we regularly take this herbal supplements it may improve our health and lower tha risk of getting heart diseases.

4.2.38 Respondents using Herbal Supplement Food

As it is already mentioned that flax seed, oats and omega -3 have beneficial impacts on our heart health this part deals with among that 16.36% respondents squid yes to take herbal supplement, which herbal supplement they are taking or using have used.

Table no. 22: Respondents Using Herbal Supplement Food

S.N.	Group	Number	Percent
1	Oats	4	44.44
2	Flaxseed	5	55.56
3	Omega -3 Fatty Acid	0	0
4	Coenzyme Q 10	0	0
	Total	9	100

Table no.22 shows among 9 respondents 4 that is 44.22% of them have taken Oats and 5 that is 55.56% have taken flax seed. Whereas none of them have taken omega-3 fatty acid and coenzyme Q10.

From this table no.22It seems that regular use of these supplement of getting heart disease and improves our health condition. It also give positive impacts on our health.

4.2.39 Knowledge of Respondents to seek emotional support from counselor or Psychotherapist:

Some patient go on insomnia and some of them may feel that now they are very weak and should always depend upon their family members. By such kind os thinking they may be get depressed so It'll be better for them to seek emotional support from a counselor or a psychotherapist.

Table No.: 23 knowledge of Respondents to seek Emotional Support from Counselor or a Psychotherapist

S.N.	Group	Number	Percentage
1	Yes	0	0
2	No	55	100
	Total	55	100

This table no.23 shows that none of the respondents were known about the fact that they need to seek emotional support from counselor or psychotherapist and none of their relatives know about it.

From this It seems that not only respondents even the normal people who are educated might be too unknown about this fact.

4.2.40 Responds on visiting a counselor After Knowing its Importance

Although It is very Important to seek support from counselor or a Psychotherapist, people have negative impact of this on them so they hardly visit or try to avoid this but for the betterment of recovering health and getting back and to be used to of normal day life most of the patients from C.C.U and I.C.U needs It.

Table no.24 Responds on Visiting a Counselor After knowing It's Importance

S. N.	Group	Number	Percent
1	Yes	13	23.64%
2	No	14	25.45%
3	If Possible	28	50.91%
	Total	55	100%

From table no.24 It seems that majority of respondents that 50.91% have said if possible which shows they are not interested in it. Whereas 23.64% of respondents take it positively and said yes they'll visit and 25.45% of respondents directly said No which shows they took it negatively.

4.2.41 Health Insurances or Discount coupons:–

When we talk economic condition of Nepali people most of them are under the line of poverty and few of them are from middle family. They are different kind of government health Insurances Policies in foreign Country but in Nepal only private sectors are involve in It most we Nepali do not have our health Insurances .

Table No. : 25 Health Insurances or Discount Coupons

S.N.	Group	Number	Percentage
1.	Yes	0	0
2.	No	55	100
	Total	55	100

Table no.25Shows none of the respondents have their health insurance neither any discount coupons which means they should pay the high and costly fee of this disease treatment. Which may not be easily affordable for them.

From this it can be said many people suffering from CVDS, may die due to lack of enough money for its treatment so, It will be beneficial for all public if government raise any kind of health insurance and promote it. In quality way rather than focusing on quality.

4.2.42 Way to Improve Health:

Heart disease is the globally leading case of death for both men and women. So, we need to take steps today to lower our risk of heart disease. They are number steps that we can take to improve our hearth health. Some of them are by improving body Composition, maintaining blood sugar level and high cholesterol level maintaining high blood pressure, following healthy eating habits.

Table no.26 Way to Improve Health

S. N.	Group	Number	Percent
a	Taking food with low fat and high fiber	0	0%
b	Doing simple and light exercise	2	3.64%
c	Avoiding alcohol, tobacco and smoking	5	9.09%
d	Depending of family members	48	87.27%
	Total	55	100%

Table no.26 shows majority of respondents that is 87.27% have said they'll depend upon family for the improvements of their health 9.09% have said they will avoid alcohol, tobacco and smoking to improve their health, 3.64% have said they will start doing simple light and regular exercise, whereas name of the respondents have said they will take food with low fat and high fiber.

This shows that as the majority of respondents were above 50 years old they depend on their family members for their food and everything, it means as person get older family members should take proper care of their eating habit to their habit of doing exercise. As above table show none of the respondents have said about healthy eating habits It can be said that most of the people are still unaware about food habits and its risk factor on our health.

4.2.43 Feeling of Respondents in Hospital

For many people, frequents trips to the hospital are a normal part of their lives. But this may be difficult and harsh situation to others. Many people does not like to be admitted in hospital and have a long stay there but for cardiac patient it's compulsion. This part deals how they are feeling in hospital either loss of motivation or motivated.

Table No. : 27 Feeling of Respondents in Hospital

S.N.	Group	Number	Percentage
1.	Yes	0	0
2	No	55	100
	Total	55	100

From table.no.27 it seems none of the respondents were feeling motivated. All the respondents were feeling that they have lost their motivation. As all of them had critical health situation, It is common to feel loss of motivation in life. But they should be motivated and provided with best counseling class too.

4.2.44 Plan of Respondents:

As the patients get new life in hospital they thought for some changes in their life style so that they could be able to maintain their health. Here this part deals with some things, how they have thought to change their life style.

Table no.28 Plan of Respondents

S. N.	Group	Number	Percent
a	Planning to join meditation	0	0%
b	To consult with counselor	0	0%
c	To go on holiday	0	0%
d	To Consult with Psychiatrist	2	3.64%
e	No thing	53	96.36%
	Total	55	100%

From table 28 it seems that as we most of Nepali people have very simple life style and low economic condition as per this majority. That is 96.36% of respondents have said they'll do nothing neither consult with counselor nor with psychiatrist, neither join to meditation nor plan holiday for refreshment. Whereas only 3.64% of them have mentioned to psychiatrist.

4.2.45 Action to Help Self for Soon Recover:

Active recovery is absolutely Crucial to becoming fitter and healthier. From having regular light physical exercises, taking medicines regularly having regular health checkup and avoiding health hazard behaviors many help us to recover soon.

Table no.29 Action to Help Self for Soon Recover

S. N.	Group	Number	Percent
a	By taking medicine in time	21	38.18%
b	Visiting doctor regularly	25	45.45%
c	Avoiding hazard health behavior	5	9.09%
d	Doing all above	4	7.27%
	Total	55	100%

This table no. 29 shows that majority 45.45% of respondents had responds that they'll visit to doctor frequently to get soon recover, 38.18% have said they'll take medicine regularly. 9.09% of them have said they'll avoid hazard health behaviors to get soon recovery. 7.27% have said they'll do all of these as far as possible.

From this it seems that most of the people think if they regular visit doctor and take medicine regularly they'll get soon recovery. But the fact is that along with this they need follow healthy lifestyle and healthy eating habit too.

CHAPTER - 5

SUMMARY, FINDING, CONCLUSION & RECOMMENDATIONS

5.1 Summary

This study was based on the field survey in the patient of cardiac ward of Nobel Hospital Biratnagar, Morang. The main objectives of this study was to assess the lifestyle of the patients with coronary heart disease, to find out the association between lifestyle and selected variables, to assess the knowledge and perception about causes, risk factors and preventive measures of coronary heart disease.

The study followed descriptive research design. Interview schedule was the tool of the study. Required data and information were collected through structured questionnaire and semi structured interview with the target people. Data were interpreted manually to make the study clear. Data were shown in tables, figures and pie charts in the form of percentage finally at the end part of the study, brief summary, major findings of the study, conclusion and recommendation of the study are presented.

5.1.1 Major Findings of the Study

- Among all the respondents most of them were between 51-60 years that is 45.45%
- Among all the respondents only 5.45% respondents were labour as their occupation.
- Majority of the respondents 58.18% were male.
- Most of respondents 52.75% had diabetes to them.
- Most of the respondents 67.27% had high blood pressure to them.
- Among all the respondents 58.18% had knowledge about the causes of heart attack.
- Majority 67.27% were unknown about the symptoms of heart attack.

- Among all the respondents 61.82% didn't know the preventive measures of heart attack.
- None of the respondents had kept medicine with them for emergency.
- Only 16.36% of respondents were taking herbal supplement.
- Not even a single respondent had health insurance or discount coupons.

5.1.2 General Findings

- Among 55 respondents 30.9 percent were illiterate, 32.7 percent were primary level passed, 14.5 percent were SLC passed, 12.7 percent were +2 passed and 9.09 percent of respondents had higher level of education.
- Among 55 respondents 45.45% of them were between 51-60 years old, 10.90% of them were between 41-50 years, 9.09% of them were of two groups one between 30-40 years and another 71-80 years, 20% of them were between 61-70 years whereas only 5.45% were 81 and above.
- Most of the respondents main income source was business was 34.55%, services was 30.91%, agriculture was 29.09% and labour was only 5.45%.
- Among all of the respondents 69.09% of them were Hindu, 12.75% Muslim, 7.27% Buddhist and 10.90 were Christian.
- Most of the respondents 58.18% were male and 41.82% were female.
- Among all of the respondents majority 78.18% were non-vegetarian and 21.82% were vegetarian.
- Most of the respondents 47.27% never did physical exercise 32.73% did sometimes whereas 20% of them had regularly done it.
- Among all the respondents 52.73% of them had their body weight 60-70kg 29.09% had 50-60kg, 12.73 % had above 70kg and only 5.45 % had 40-50 kg.
- Most of the respondents 56.36% had family history of diabetes and 43.64% of them did not.
- Among all the respondents 55.48% had diabetes to their father, 19.35% had to their mother, 22.58% had to their paternal uncle, 16.12% had to their maternal uncle, and 6.45% had to their grandparents.
- Most of the respondents 52.73% had diabetes to them and 47.27% didn't.

- Among all the respondents, 41.37% had 140-180 mg/dl, diabetes, 37.93% had 180-200 mg/dl, 17.24% had above 200 mg/dl and 3.45% had 110-140 mg/dl in fasting.
- Most of the respondents, 60% had family, high blood pressure.
- Among all of the respondents 27.27% had diabetes to their father, 21.21% had to their mother, 9.09% had to their maternal uncle, 18.18% had to their parental uncle, 15.15% had to their grandfather, 9.09% had to their grandmother.
- Most of the respondents 67.27% had high blood pressure to them.
- Among all the respondents 48.65% had 140/90 - 150/90 mmhg blood pressure, 32.43% had 130/90-140/90 mmhg, 16.22 had 150/100-170/100 mmhg and 2.70% had above 170/100 mmhg.
- Majority of 52.73% of respondent, had high cholesterol to them.
- Among all the respondents majority of 51.72% had 200-239mg/dl cholesterol level, 41.38% had 240mg/dl and above 6.90% had below 200mg/dl.
- Among all the respondents same number which is 41.38% had high triglycerides level between 200-499mg/dl and 150-199mg/dl.
- Among all the respondents 50.91% did not use tobacco.
- Among all the respondents majority of 50.91% did not use alcohol
- Respondents who have habit of drinking alcohol among them 70.37% had habit of drinking regularly.
- Among the respondent who used to drink alcohol, 40.74% use to had hard drinks, 25.93% had soft drink, same percentage had local alcohol and 7.40% had mild drinks (Wine)
- Majority of 69.09% respondents were well known about heart attack.
- Among all the respondents 67.27% had family history of CVDS.
- Respondent who have family history of CVDS among them 33.33% had to their paternal uncle, 22.22% had to their father, 27.78% had to their brother and 16.66% had to their cousin brother.
- Among all the respondents 58.18% respondents had knowledge about the causes of heart attack.
- Respondents who had mention that they had knowledge about the causes of heart attack, among them 3.13% thought cause of heart attack is having stressful life, 6.25% thought not having physical exercise, 15.63% thought

unhealthy diet and excessive alcoholism, 18.75% thought chronic heart disease and 56.25% thought all above reasons.

- Among all the respondents 67.27% were unknown about the symptoms of heart attack.
- Respondents who were known about the symptom of heart attack among them 38.89% had mention it as mild and intense pain in chest and shortness of breath, 22.22% had mentioned it as nausea unusual tiredness and sweating 16.67% mentioned it as pain in both shoulders and jaw and 22.22% had mention as all above.
- Among all the respondents 61.82% didn't know the preventive measures of heart attack.
- Respondents who were known about the preventive measure among them 52.38% had mention it as maintain blood pressure and blood cholesterol and limiting high calorie intake, 9.52% mentioned it as heaving healthy diets and avoiding alcoholism and tobacco, 9.52% mentioned it as meditation and yoga and 28.57% had mention as all above.
- Among all the respondents 85.43% of respondents didn't have availability of cardiac center or any hospital in their locality.
- Majority of 76.36% respondents were not updated about their own health status.
- Respondents who were updated about their health status among them 61.54% had visit hospital once in six month, 23.08% once in two months 15.38% when they feel it is needed.
- None of the respondents had kept medicine with them for emergency.
- Most of the respondents 78.18% had mention that they will not take any action if they forgot to take their medicine, 12.73% mentioned they'll consult with doctor 5.45% had mention they'll take double dose and 3.64% mentioned they'll leave them there after.
- Among all the respondents 83.64% were not taking herbal supplement.
- Respondents who were taking herbal supplement among them 55.56% were taking flaxseed and 44.44% were talking oats.
- None of the respondents had knowledge that they had to seek emotional support from counselor or a psychotherapist.

- Among all the respondents 50.91% had mention they'll visit counselor it possible and 23.64% said they'll visit.
- Not even a single respondent had health insurance or discount coupons.
- Among all the respondents 87.27% of them had mentioned that they'll be depending on family members to improve their health 9.09% by avoiding alcohol, tobacco and smoking and 3.64% by doing simple, light and regular physical exercise.
- All the respondents were feeling that they had lost the motivation.
- Among all the respondents 96.36% of them had no plan to after they get discharged from hospital while 3.64% had plan to consult physiatrist.
- Among all the respondents 45.45% had mentioned that they'll visit doctor regularly for the soon recovery, 38.18% had mentioned they'll take medicine in time 9.09% mentioned they'll avoid health hazard behavior and 7.27 mentioned they'll do all above things.

5.2 Conclusion

The study entitled "Myocardial Infractions" was done in cardiac unit of Nobel Hospital, Biratnagar, Morang. This study was focused to assess the lifestyle of patients with coronary heart disease and to find out the association between lifestyle and selected variables.

After analyzing the data the study has found out that most of the respondents were not conscious of having regular physical exercise. Majority of the respondents were non-vegetarian and most of them were between 51-60 years old. Most of the respondents had high body weight and had high blood pressure, high blood sugar level, high cholesterol and had family history of CVDS. As most of the respondents were from low economic status and had low educational qualification they were unknown about the symptoms and preventive measures of heart attack.

Finally, from the above list fact it can be said that non-communicable disease like heart attack is rising as the several problem. The reason might be due to illiteracy, poverty, lack of awareness, inaccessibility of health facilities, high blood sugar level, high blood pressure, high cholesterol obesity and lack of physical exercise. Hence, to overcome this situation, government, non-governmental organizational the policy

makers and health service provider should organize awareness program and campaign in both rural and urban areas.

5.3 Recommendations

On the basis of findings of these study the following recommendation are made for the government and non-governmental agencies and individual who are interested in knowledge cause symptoms and prevention of heart attack.

5.3.1 General Recommendations

- a. Most of the respondents were between 51-60 years, it means people after late 40s should be carried to awareness and campaigns programs.
- b. Formal and non-formal education about the symptoms causes and preventive measures of heart attack should be provided.
- c. Mass media should be encouraged to organize various campaigns and awareness to minimize the server problem of CHD.
- d. The major causes of heart attack are high blood pressure, high blood sugar and high cholesterol. Therefore preventive measures of these disease should be launched in bottom to top approach.
- e. Health care center should not be focused only on urban areas.
- f. Most of the respondents have faucily history of high B.P., high blood sugar and high cholesterol. Therefore, preventive measures should be given to them through different kinds of orientation program.
- g. The respondents were not taking different kinds of herbal supplement which can lowers the risk of CHD. Therefore, they should be motivated to have such supplements.
- h. All people should be encourage to do exercise, yoga, mediation and regular health checkup for healthy and happy life.

5.3.2 Recommendations for further Research

Further researcher can undertake the further study on as following.

- a. Study should be conducted to find out life style of patients with coronary heart disease in different part of the country.
- b. The upcoming researcher can study how several variables are related to the health of the people.
- c. Selection of large are and large sample size can give the clear picture of the study matter.
- d. This is just descriptive type of the study therefore analytical study is recommended for further research.

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