

Assess the factor affecting of hypertension among young adults (18to35yr) at DHQ hospital Faisalabad

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Abstract— Hypertension is a vital health problem in global and increasing burden of disease. In developing and low income countries facing various healths' related issue such as communicable and non communicable diseases. High blood pressure is a prime adverse factor many cardiac diseases e.g. stroke, cardiac failure and renal failure among young generations. The young adults are at risk because sedentary life styles, no exercise, junk food, alcohol and smoking. The family history is significant for hypertension. The hypertension is run through genetically in family's parent to children, in sibling. The diet is dietary approaches to Stop Hypertension. In which higher intake of potassium and calcium in their diet is important to lowering the blood pressure in only hypertensive people.

Methodology: It is a descriptive, cross sectional study, Emergency Department at Civil District Hospital Faisalabad (DHQ). In which include 50 patients the age of >18 to 35 years. Data is collect through self Structured Questionnaire.

Results: There are 50 participants having hypertension but there are only 12(24%) ratio of taking medicine. The 38(76%) ratio are not taking medicine. The 38 participants are not enough knowledge regarding anti hypertensive medication. 47(94%) participant taking junk food and only 3(6%) are not taking junk food. There are a large number of victim of fast food. 20(40%) participants are taking alcohol and other related substances whose are hazard for health. The 30(60%) are protected from this addiction.

Conclusion: The overall study results are concluded that the different factors are cause to prevalence hypertension in young's adults. This study also assesses the living style of the participants. This study also assesses the behavior of young's regarding their health and to control the hypertension among them.

Recommendation: Seminars, workshops and Awareness programmes should be conducted to improve the living style and to control the hypertension. The small health clinic should be construct to maintained the health of the young adults and other age group people

1 INTRODUCTION

Higher blood pressure is known as Hypertension. High blood pressure is a prime adverse factor of many cardiac diseases such as stroke, cardiac failure and renal failure among young generations. High blood pressure is a vital cause of morbidity and mortality in young adults as compared by older adulthood. The overcome on hypertension is means that to decrease the morbidity and mortality ratio through education regarding hypertension and treatment. To give awareness about hypertension and pre-hypertension. (Kayima, Nankabirwa et al. 2015). Prevalence of hypertension is increasing day by day in Asian population including Pakistan. According to daily record hypertension rate is higher in District Head Quarter (DHQ) hospital Faisalabad (Pakistan).

The hypertension is a turn into deliberate cosmic health problems and overwhelm. The prevalence of cardiovascular disease is due to high blood pressure and obesity in Asian population. (Lee 2014). The causes of hypertension in young adults

are also obesity. Obesity is major health issue in both developed and developing countries. The incidence is higher in men than women. (DeMarco, Aroor et al. 2014). Countless factor are discovers risk factor for high blood pressure is socio biographic factors e.g. sex, age, parental history of high blood pressure, body mass index (BMI), behavior factor, sleep duration, life style, smoking intake of alcohol and some diseases such as diabetes mellitus are very important risk factor of hypertension. The increase value of lipidemia and cholesterol level also increase chance of hypertension. The young adults are at risk because sedentary life style, no exercise, junk food, alcohol and smoking. (Tadesse and Alemu 2014).

High blood pressure is a significant adverse factor of cardiovascular diseases and Stroke. It varying risk factor are not similar among young adults and older adults as besides by the widespread of high blood pressure are not similar such as in stroke the risk factors are high blood pressure, heart diseases (arterial fibrillation) and diabetes mellitus are frequent in el-

derly as compared as vascular risk factor in adults dyslipidemia, smoking and high blood pressure.(Smajlović 2015). The current study shows that the control on their blood pressure through diet is known as DASH diet. The diet is dietary approaches to Stop Hypertension. In which the higher intake of potassium and calcium in their diet is important to lowering the blood pressure in only hypertensive people. However the low intake of Na⁺ in their diet will be lowering the blood pressure. (Perez and Chang 2014). There is a strong correlation between ageing and hypertension. The age is a non varying risk factor in the evolution of high blood pressure. It is occur due to endothelial dys-functioning, vascular stiffness, inflammation, contraction and calcification. (Harvey, Montezano et al. 2015). The endothelial dys-functioning has been identifying the path- physiology of hypertension and also cardiovascular disease. In which the worsening effects occur in endothelium, decrease vaso-dilator, proinflammation, pro-thrombosis occur in the result the vascular inflammation occur, which are may be mild or moderate by Reactive Oxygen Species (ROS) by activated mononuclear cell.(González, Valls et al. 2014).

Hypertension is a vital health problem in global and increasing burden of disease. The burden of hypertension is increasing day by day along with critical influences on the world. The hypertension is key of cardiovascular disease and stroke.They increase the burden of cardiovascular disease in coming few years.(Ataklte, Erqou et al. 2014).

In developing and low income countries facing many health's related issue such as communicable and non communicable diseases. The World Health Organization (WHO) in 2008 the many studies show that the 67% death reported by non communicable diseases (hypertension) in which the 48% by cardiovascular disease.(Helelo, Gelaw et al. 2014). To decrease the non communicable diseases in Asian countries. The control over their modifiable risk factors e.g. control over their Body Mass Index (BMI) through their childhood. (Lee 2014).

The some study show that the prevalence of hypertension in 2015 is increased almost 1.56 billion. There are many factors that cause hypertension in which including anxiety. The anxiety is a major psychological health issue among young adults that cause high blood pressure. Therefore the hypertension and anxiety is an important health problem in health care system. The both health issues hypertension and anxiety takes attention of the population within few years back.(Pan, Cai et al. 2015). The blood pressure is taken with sphygmomanometer whose are valid. To restricted of smoking, alcohol and other things that cause hypertension thirty minute before taking the blood pressure. The blood pressure taken from left arm in sitting position and the arm wear put on table.

2 LITERATURE REVIEW

This study was conducted by Johnson, Thorpe in (2014) according to them the prevalence of hypertension in young adults (> 18 years) is less as compared by people whose age groups are most likely > 25 years old groups. The prevalence of hypertension is much higher in > 32 years older than > 25years. The > 32 years are higher prevalence of hypertension in > 40 years old peoples. The prevalence ratio is higher day by day. The recent diagnosed hypertension or pre-hypertension have no base line issue but they have some factors that are to cause of hypertension such as increasing basal mass index, the history of current smoking, the family history and dietary habits. These factors that raised to causes hypertension.(Johnson, Thorpe et al. 2014).

According to this study the (Ranasinghe in 2015) they demonstrate that the factors whose trigger the high blood pressure is genetically. This study shows that the family history of hypertension is important for hypertension. Some other factors that cause hypertension are obesity, sedentary life style and metabolic syndrome. The high blood glucose level is also significant in high blood pressure. The alcohol intake, cigarette smoking and Jung food may develop high blood pressure. The higher blood pressure cause acute Myocardial Infarction, Coronary Artery diseases, heart failure or renal failure. This factors cause further diseases and complications or death. Therefore the higher rate of mortality and morbidity are due to hypertension. The early prevention of hypertension is means that to control over mortality and morbidity among young adults. The early diagnose by positive family history of hypertension is necessary to evaluate them for hypertension and other complications before time. The hypertension is a most common in developing and developed countries.(Ranasinghe, Cooray et al. 2015).

This study is conducted by Yuichiro Yano, Jeremiah Stanler, and Martha-l in 2016 at American College of Cardiology (Chicago). According to this study "Isolated Systolic Hypertension in young and Middle Aged adults and 31 year risk for Cardiovascular Mortality". According to this study the isolated systolic blood pressure higher chanciness of Cardio Vascular Disease, and mortality in young adults. The young adults are affected more for Cardio Vascular Disease in Isolated systolic high blood pressure as compare the prime systolic and dia-systolic blood pressure. The isolated systolic high blood pressure is those hypertension in which the systolic blood pressure are higher than 140mmHg on the other hand the dia-systolic blood pressure is less than 90mmHg. It means

that the single value of systolic is higher than normal but the dia-systolic blood pressure are normal below than 90mmHg. In this study the author explain that the isolated systolic blood pressure is more dangerous as prime systolic and dia-systolic high blood pressure. They are more common in males than females. This study concluded that the mortality rates are high in young adults of Cardio Vascular Disease and Congestive Heart Failure that lead from isolated systolic high blood pressure. The trigger factors are gender, age, diet, life styles, environmental level and others. The cigarette smoking, alcohol consumption is also triggering the isolated systolic high blood pressure.(McEniery, Franklin et al. 2016).

According to this study these are authors Irene A Kretchy, Frances T and Samuel A Danquah that conducted a study in 2014. In this study they explain that the hypertension is one of the most common health problems. The hypertension is anincreases burden in developing countries and more common in rural areas. The hypertension is chronic disease which causes many other health problem, mental health problem also included. The psychological disorder that arises from hypertension is depression, anxiety, and stress etc. Depression is a common burden of disease in health care systems. Long term hypertension has some adverse effects, Psychology imbalanced and cardiovascular disease, and congestive heart failure arthrosclerosis. Uses of medicine to lowering the high blood pressure can cause depression among young adults. The hypertension and emotional, spiritual negativitvare closely inter-related with each other. Hypertension is root of many other diseases congestive heart failure and renal failure. The hypertension also effect on mental ability. The some medicine also leads some issues such as stress, anxiety and depression.(Kretchy, Owusu-Daaku et al. 2014).

potassium, calcium can lead physiological changes in their anatomy such as the contraction of blood vessels, higher peripheral resistance and they cause high-blood pressure. The high blood pressure is concluded that the DASH diet are essential to control the high blood pressure. The uses of increased number of calcium, potassium and lower the sodium level in their daily life.(Perez and Chang 2014).called hypertension. That's way this study

This is a cross sectional study conducted by Bruno RM, Pucci G and Rosticci M in (2016). According to this research study the hypertension in young adults are common as compared with elder. There are many factors that effect to cause hypertension among young adults including obesity and adoptable food pattern are most common. Excessive amount of junk foodare takingtwice a week. Alcohol intake, tonic drinks and cigarette smoking. The most of the fatty indi-

vidual are victims for hypertension because the young adults are the most favorable medium of hypertension as by older age. The discrepancy among current status and aspire status of hypertension in young adults. The overcome in such factors to reduced the mortality and morbidity rate from Italian young populations. The control is made through education and awareness programme conducted by world health organization (WHO). Change the life style of the young populations. To reduced or the hypertension rate in young adults by weight loses (BMI), enhance the intake of potassium and minimize the use of salt (sodium) in their diet. Control their diet by (DASH) Dietary Approaches to stop hypertension.(Bruno, Pucci et al. 2016).

According to this study the authors Michael E Hall, Jussara M doesCarmo and Alexandre A de Silva in (2014) explains the strong relation of adiposity and hypertension. According the (WHO) survey in 2008 the ratio of overweight population is two third and the obesity ratio is approximately one third in the world. So that the elevated blood pressure are more common in young adults. Significant of obese individual is cause of high blood pressure according to this study. This study shown that the increase in BMI are cause of hypertension as its means that the control over BMI to reduce the blood pressure. The system of metabolisms syndrome is not working properly the renal activity perform a significant functions. Adiposity causes increases kidney salt reabsorbed. Damage kidney pressure for excretion of sodium in the urine and collect extra fluid outside the cells that are leading hypertension. The elevated blood pressure and glomerular filtration rate balance the kidney pressure of excretion of sodium in the urine, chronically hypertension develop.(Hall, do Carmo et al. 2014).

This study demonstrate that the authors Elizabeth Anyaegba, I. MD.MSCI, VikasDharnidharka, R MD MPH in (2014). According to this research study the enrollment of children for hypertension. The primary hypertension is common in children. The primary hypertension is known as essential hypertension. In this type elevated blood pressure without any pathological changes or secondary cause. The recent data shows that the spreading of hypertensionhave 1-5 % spread in early childhood.The spreading of high blood pressure is due to stronger family history the causes of overweight regarding high blood pressure are closely interrelated with sympatric nervous system. Overactive of sympatricnervoussystem is as evidence by tachycardia and higher blood pressure in obese healthy school going children. To increases sodium re-absorption in the renal. The increased sodium in CSF to enhanced the sympatricactivity. The most of the hospital the

primary hypertensive Childs are missed due to undiagnosed hypertension. Nobody bother them because the low chances of hypertension among young adults. The prevalence of higher blood pressure is refers to a secondary hypertension. Because the essential hypertension leads a vascular structural changes therefore the development of secondary hypertension. The path-physiological changes occur they called secondary hypertension.

This study demonstrated that the authors are BETH-ANY EVERETT, ANNA ZAJACOVA in (2015). The hypertension is leads to cardiovascular disease, coronary arteries disease, congestive heart failure and end stage of kidney failure. The hypertension is most common in elderly people as compare, the gender is most significant. The more common in male as compared with female.(Everett and Zajacova 2015).

3 METHODOLOGY

Study Design

Descriptive and cross-sectional study

Study Area

Emergency Department at Civil District Hospital Faisalabad (DHQ)

Duration of Study

18th weeks, 4months from Jan 2019 to April 2019

Data sources

Different Search engines were used like Pub Med, Google scholar and book marks etc.

Study population

Patients are at the age of > 18 to 35 year.

Sampling Techniques

Convenient Sampling method

Sample size

50 patients

Sample recruitment

Exclusion and inclusion criteria

Inclusion Criteria

Patients who will be available at the time data collection in critical unit

Exclusion Criteria

Patients more than the age of 35 years

Data Collection techniques

Data will be collection through Structured Questionnaire

Ethical Consideration

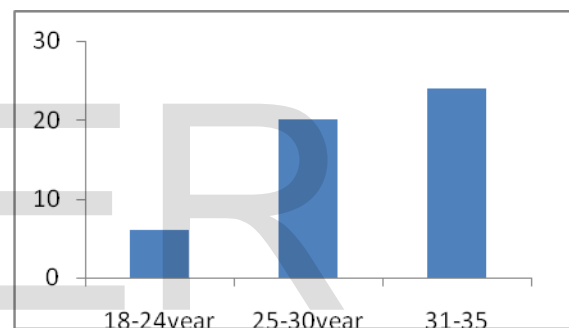
Permission of data collection will be taken from the Medical superintendent of the DHQ hospital.

The risk and benefit of the study will be explained to the study participants.

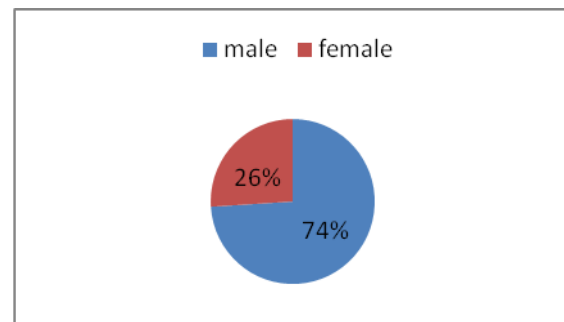
An informed written consent will also be taken fro them who take part in the study.

QUESTIONNAIRE:

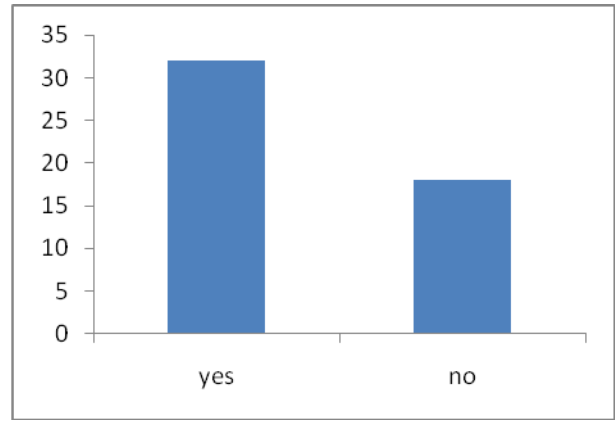
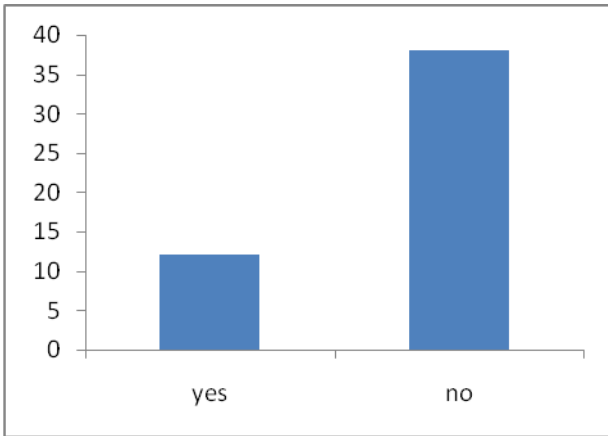
Age variation:



Sex variable:



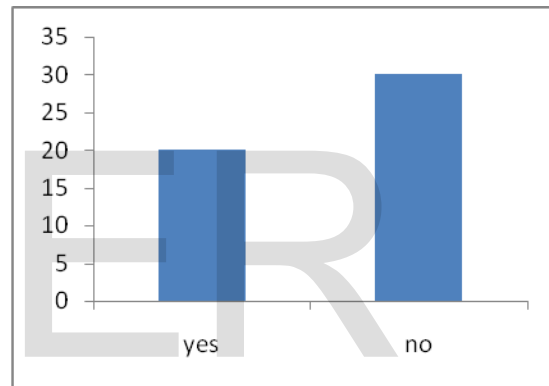
Q : Is the blood pressure measured by any health professionals?



Q: Do you have other health problem like diabetes, asthma, kidney problems and any heart problem?

	Frequency	Percent
Yes	28	56.0
No	22	44.0
Total	50	100.0

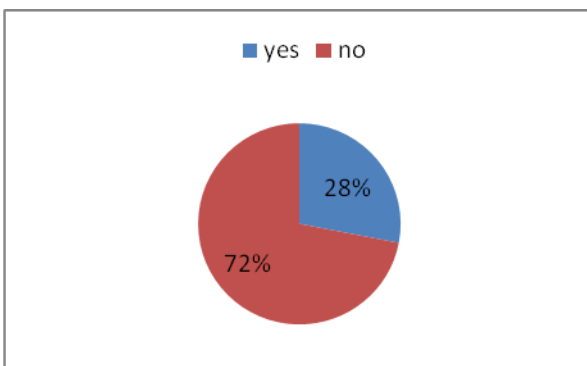
Q: Do you take alcohol or other substance?



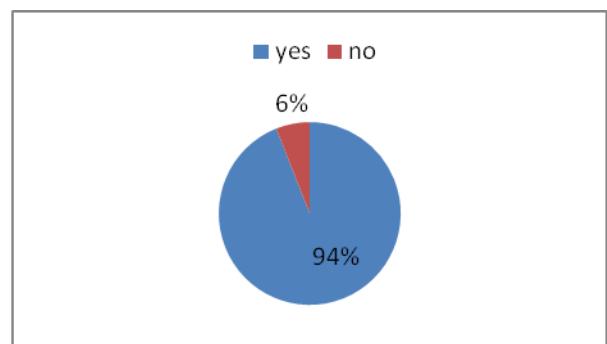
Q: Are you having any other family member whom diagnosed hypertension?

	Frequency	Percent
yes	42	84.0
no	8	16.0

Q: Do you take daily exercise?

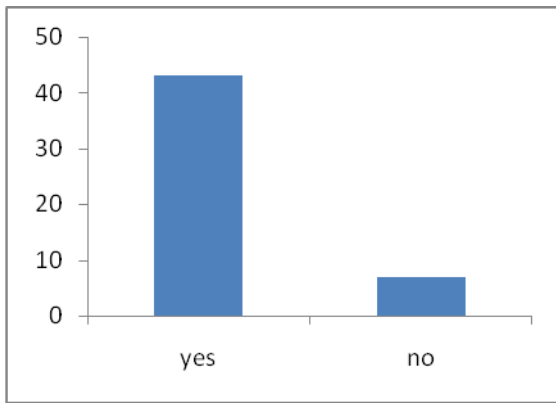


Q: Do you take junk food?



Q: Do you ever smoke cigarette?

Q: Do you think blood pressure is high with stress, taking fast food or by any other factors



4 RESULTS:

The purpose of this study was to assess the factors that are leading hypertension among young adults at the ages of 18 to 35 year elder at DHQ Hospital Faisalabad. It was a cross sectional descriptive study that is conducted at DHQ Hospital Faisalabad from February 2019 to March 2019. 50 patients were filled the Questionnaire form for this purpose. The results are varies according to client perceptions.

Knowledge:

This study showing that the many factors are leading hypertension among young adult in which the knowledge is a prime factor because the population were not know about (HTN) high blood pressure. The only 21(42%) people were aware about high blood pressure and only 29(58%) people are unaware with high blood pressure. The 14(28%) peoples are know about complications of high blood pressure and the 36(72%) are not have knowledge regarding complications of high blood pressure. The 12(24%) populations have knowledge with factors that are causing high blood pressure among young adults and the 38(76%) population are totally unaware with causes of high blood pressure.

Sedentary life style:

14(28%) people are taken their daily exercise and 36(72%) people have no time and no interested in daily exercise. Most of people live sedentary life; therefore they spend to watch TV four hours and more. Only 27(54%) people are watching TV less than four hours and the 23(46%) peoples are TV and like sedentary life style.

Diet:

The young adults are cigarette smoking at the 18 year of the age are 14(28%) are smoking cigarette and 36(72%) are not smoking. The 20(40%) people take alcohol and other abuse substances that are hazard to health and cause high blood

pressure in young adults. The 30(60%) are not taking alcohol and other substance that are badly effects on health. 46(82%) peoples are taking junk food and 4(8%) are not taking healthy diet. 32(64%) people are aware with healthy snacks like fresh vegetable, fruits and juices in their daily life activities. They are taking healthy snacks in routine.

The 27(54%) people have moderate physical activity in their occupation. Only 26(52%) peoples are satisfy with their job and the 24(48%) are not satisfy with their jobs. The only 2(4%) hypertensive population are checked their blood pressure twice a day. The 48(96%) are not checked their blood pressure two times in a day. The 23(46%) young populations consult physician when they have high blood pressure. The 27(54%) are not go to doctors when they have high blood pressure.

Other health problem:

The 28(56%) young adults have health problems like renal disease, diabetes, asthma and heart problems. The 22(44%) people are saving from these diseases and health problems.

Treatment:

The 12(24%) young adults are taking anti hypertensive drugs and 38(76%) are not taking anti hypertensive drugs to treat the high blood pressure. The 21(42%) people are changing their life style when they diagnosed high blood pressure and the 29(58%) peoples are not changed their life style. The 14(28%) young adults are test their cholesterol level and find cholesterol level are elevated from 175mm/dl. 36(72%) have no cholesterol level.

The 35(70%) adults think that when taking medicine then there is no need for exercise and diet control. 15(30%) doing exercise and diet control with taking medicine. The 32(64%) adults have high blood pressure more than one year ago and 18(36%) are newly diagnosed hypertension.

Affect on routine work:

The 46(92%) adults have effects of high blood pressure on daily life activity and 4(8%) are not feel or have any problem with their high blood pressure. 42(84%) adults have family history of high blood pressure and the 8(16%) have no family history of hypertension.

The 27(54%) adults have high blood pressure in the results of fast food, luxury life style and stress. The 23(46%) adults have no high blood pressure due to stress, fast food and life style.

5 DISCUSSION

During this study I found that the many factors leading to hypertension among young's (18-35) years are respectively higher as day by day. The results were analyzed. The purpose of current study was to explore the factors that cause hypertension in early adulthood. The young adults are busy to adopt bad habits. Most of the young's are not taking care of themselves. They have not enough knowledge regarding hypertension. Therefore now a day the hypertension rate is higher as constantly.

This is descriptive study to assess the factors leading hypertension among young adults (18-35 year). This study conducted at District Head Quarter Hospital Faisalabad (DHQ) in emergency department. In this study the 50 percipients are included whose diagnosed hypertension.

The study was conducted by Yun Gao and Gag Cha in Jun 2013 in China. This study shows that the hypertension prevalence ratio in male and female. Hypertension ratio in male was 29.2% and in female 24.1%. Current research study concluded that male prevalence ratio are 36(74%) and the female are 13(26%). The mean of sex are 1.26 and std.Deviation is .443. this study show that the gender are included risk factors of hypertension in young's. Gender is amajor factor that lead to hypertension.(Gao, Chen et al. 2013).

In this study educational status divided in five categories illiterate people 02 (4%), primary 02 (4%), Middle 17 (34%), secondary 18 (36%) and graduated 11(22%).

This is cross sectional study conducted by James Kayima, MahboobRahman, and JoaniterNankibirwa. They selected 553 participants in the 76(13.7) and (47.7) were unaware about hypertension. The current study have 50 participants in which the 21(42%) have knowledge about hypertension and 29(42%) are not knowledge. The mean of knowledge are 1.58 and std.Deviation .499.(Kayima, Nankabirwa et al. 2015).

This is aintuitional based Cross-sectional study conducted by TakeleTadesse in 9 September 2014. According to this the cigarette smoking 6(40%) were daily base smoker. The alcoholicbehavior in young's adult of the university was 6.8%. The current study is show that the number of cigarette smoking is 32(64%) and nonsmokers are 18(36%) and the mean of smokers are 1.72 and STD deviation .454. The frequency of taking alcohol and other substances like katt are 20(40%) and there are 30(60%) are save from this abuse their mean are 1.60 and std deviation is .495.(Tadesse and Alemu 2014).

This study was published by Ernest Afrifa-Anane, Charles Agyemange in 2015. In this study the discussion the physical activity difference between male and female. This

study concluded that female were not physical active as compared to men. According to this study results the female ratio 94.7% non active and the 70.5% male were in active. The current status of inactive of male and female are 23(46%), and the 27(54%) are active.(Afrifa-Anane, Agyemang et al. 2015).

This study was done by PriyangaRanasinghe, Dilini N, and Cooray and published in 2015. This study describes the importance of family history. The genetic history is important because the prevalence of hypertension is very high instead of non family history. According to this study the 29.3% were have positive family history and the non family history were 24.4%. The family history triggers the hypertension in adults. The current study are shown the 42(84%) with the positive family history and the 8(16%) are no family history.(Ranasinghe, Cooray et al. 2015).

6 CONCLUSION

This study is conducted at District Head Quarter hospital Faisalabad (DHQ) in order to assess the factors that are contribute to leading hypertension in young adults in emergency department. The goal of this study has to explore or find out the component which contributing hypertension.

In this study the participants of different categories are involved there are

- Sex
- Age (18-35)
- Sedentary lifestyle
- Dietary pattern
- Cigarette smoking
- Family history

Other health problem

The 50 participants include in this study. Self structure Questionnaires was use together data from the participants. Convenient sampling technique was used to collect accurate data and take results from it. According to this study the sex male are 37(74%) and females are 13(26%), physical activity was 27(54%), exercise status were 14(28%) and family history of high blood pressure was 42(84%). The recently ratio of cigarette smoking were 32(64%), the other health problem are 42(84%) and the junk food was 47(94%) stress 43(86%). The client has insufficient knowledge about high blood pressure. They have only 14(28%) knowledge regarding complications of hypertension. The hypertension effects on their daily life activities were 46(92%).

The overall study results are concluded that the different factors are cause to prevalence hypertension in young's adults. This study also assesses the living style of the partici-

pants. In this study results also assess the behavior of patients regarding their health and to control the hypertension among themselves.

7 RECOMMENDATION

The various factors are observed during this study. There is a great need to minimize the factors and to control the hypertension among young's adults. This can be done through following

- [1]. Seminars and workshops should be held regarding hypertension to give education about factors whose cause high blood pressure and their complications.
- [2]. Awareness programmeshould be conducted to improving the living style for the control of hypertension.
- [3]. The small health clinic should be constructing to maintain the health of the young adults and other age group people.

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