

## **Knowledge of Al Jouf University students about hypertension**

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### **Abstract**

*Hypertension is one of the most crucial health problems and the most common chronic disease in developed and underdeveloped countries. The rate of hypertension and its complications are decreasing in developed countries whereas it is increasing in developing countries. This study aimed to evaluate students' awareness, expectations, beliefs and knowledge about hypertension in Saudi Arabia.*

**Keywords:** *hypertension, Al Jouf University, Saudi Arabia*

### **INTRODUCTION**

Hypertension is one of the most crucial health problems and the most common chronic disease in developed and underdeveloped countries. It is called the silent killer which kills 8 million every year around the world. Globally, nearly 1 billion people have high blood pressure of those two-thirds are in developing countries. Hypertension is one of the most important causes of premature death and the problem is growing; in 2025 an estimated 1.56 billion adults will be living with hypertension(1,2)

It is an established major risk factor underlying the epidemic of coronary and cardiovascular diseases in most developed countries, and it has been shown to be a major public health problem in many developing countries since the 1970s(3). The rate of hypertension and its complications are decreasing in developed countries whereas it is increasing in developing countries (4,5,6,7). Although hypertensive illness is more prevalent in urban areas, it is also seen in people of rural areas with low socioeconomic condition (7,8). Unfortunately the prevalence of HTN is increasing worldwide but awareness, treatment and control rates are very poor (9).

Global Study in May 2011 Shows Nearly 19% of Young Adults which this study oriented for, (university students) may have Hypertension and just half of them are aware of it despite this condition's strong link to heart attack and stroke risk. (10) We tend to think of them as a rather healthy group, but a prevalence of 19% with hypertension is alarming

Young adults and families of young adults in Saudi Arabia should be more vigilant and aware of their blood pressure this starts with getting a proper measurement and finding out whether or not there is problem.

This problem is easily fixable if young adults are willing to alter their lifestyle, typically young adults may be able to control high blood pressure with lifestyle changes such as reducing sodium intake and losing weight.

The new prevalence rate is alarming because many young adults don't even know they have a problem so that make a strong motivation to move forward in this study is aimed to evaluate students' awareness, expectations, beliefs and knowledge about hypertension in Saudi Arabia the prevalence of hypertension is 21.1% (18.3% for female and 24.1 for male).(11)

## **METHODOLOGY : Design, Setting and Population Sampling**

### **Study design: cross sectional descriptive study.**

#### **Sampling method: simple random sampling technique**

This study will be conducted in Al-Jouf region in Saudi Arabia in the winter months 2012-2013. Data collection process will extend for a period of almost one month. The study will conduct cross sectional descriptive study. To determine the level of awareness and attitude of 300 hundred students from five colleges of Al-Jouf University. Study population will be between 19-26 yrs of student.

Sample size is estimated to detect an attitude or knowledge of students with a prevalence rate of 35% and a confidence level of 95%, and an absolute precision of 3% on both sides of the anticipated prevalence. The required sample size turned to be 300 students. To obtain this sample, from five different colleges from each colleges 60 students and these colleges are 1-college of education 2-college of computer science. 3- Preparatory year program 4-college of applied medical science 5-collge of humanities and administrative sciences college. Sample technique are selected using a simple random sampling technique.

#### **The Instrument:**

A questionnaire contains information that tests a knowledge and understanding of hypertension among Al-Jouf university student. It consists close ended questions,. The questionnaire will be tested on a sub-sample of students for understandability and reliability and the necessary modification will be done.

#### **Data Analysis:**

Analysis of data will be done using the Statistical Package for Social Sciences (SPSS 20.0). Frequency distributions of all variables will be produced. All p values will be based on 2-sided test, and the cutoff value for statistical significance is set at 0.05. Chi-squared analysis is used to test differences in proportions and independent students.

## **RESULTS**

Among 15 collage from Al-Jouf University we have chosen 5 collages randomly as representative sample 60 students from each collage. Total number of participants 300.20% of them are female from computer science collage and the rest are male.

26% of participants said that they don't know hypertension during the answer the hypertension. The 84.3% don't know the complication of hypertension. Student's answers seemed to be equal when we asked them if it is inherited or not.

Majority of them agreed that hypertension is not a communicable disease.62% of student answer old people when we ask them about the age most to be affected in hypertension and 23% answer there is no specific

age. 55.7% of participant believe that more salt intake and psychiatric is the major risk factor which lead to hypertension .58% of student said there is medication for hypertension. The students were aware about prevention of hypertension because they select regular exercise and decrease salt intake to be the best way to prevent hypertension. 38.7% of student have a relative with hypertension.

## CONCLUSION

- 1- On the study 68% of population have heard about hypertension.
- 2- Regarding knowledge of risk factor of hypertension showed:  
Salt intake 55.7%  
Sedentary life style 28%.  
Smoking 25%.  
Psychiatric 55%.  
Obesity 29%.
- 3- 32% said hypertension is not inherited.
- 4- 1.3% said it is a communicable disease.
- 5- Regarding susceptible gender to have high blood pressure 40% of student responded that both male and female are equal.

Student who have relative with hypertension were more knowledge about the complication of hypertension than the student who don't have any relative those result were statically significant (p <.05). Male and female were equal in their knowledge of complication of high blood pressure.

## Recommendation:

We must develop program that conduct the student to increase their knowledge about the hypertension and the causes and complication because many of them have brief information about the disease . As we discuss before many of students have relative with high blood pressure so we should target those and give lecture about the disease . we should also focus on the complication of the disease as many of participant don't know the complication .

## REFERENCES

- [1] 1-World Health Organization,Hypertension fact sheet | Department of Sustainable Development and Healthy Environments | September 2011
- [2] 2-Uchiyama A, Shimizu T, Nakagawa T, Tanaka T. Environ Health Prev Med. 2008 Sep;13(5):271-80. Epub 2008 Aug 12.
- [3] Fuentes R et al. Hypertension in developing economies: a review of population-based studies carried out from 1980 to 1998. J Hypertens 18(5):521-9: 2000
- [4] Singh RB et al. Hypertension and stroke in Asia: prevalence, control and strategies in developing countries for prevention. J Hum Hypertens 14(10-11):749-63: 2000
- [5] Seedat YK. Hypertension in developing nations in sub-Saharan Africa. J Hum Hypertens Oct-Nov;14(10-11):739-47: 2000
- [6] Lenfant C. Can we prevent cardiovascular diseases in low- and middle-income countries? Bull World Health Organ 79(10):980-2; discussion 983-7: 2001
- [7] Kumar V et al. Health status of the rural elderly. J Rural Health 17(4):328-31: 2001
- [8] Soylu A et al. Effect of socioeconomic status on the blood pressure in children living in a developing country. Pediatr Int 42(1):37-42:2000
- [9] Zachariah MG et al Prevalence, correlates, awareness, treatment and control of hypertension in a middle-aged urban population in Kerala. Indian Heart J. 2003; 55:245-251
- [10] Kathleen Mullan Harris, PhD, the interim director of the University of North Carolina's Carolina Population Center in Chapel Hill.