# "An Exploratory Study To Assess The Knowledge Regarding Hypertension Among The Age Group (20-60 Years) With A View To Prepare Guidelines Of The Same In A Selected Community Area Of Ludhiana, Punjab." 

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#### Abstract

: Background: Hypertension is emerging as the leading cause of cardiovascular mortality which accounts for $20-50 \%$ of all deaths and is infect emerging as an epidemic. Today urban studies are conducted in India. In last decade have shown increasing prevalence from $6.64 \%$ in 1988 to $36.4 \%$ in 2003.It is very unfortunate that hypertension is not taken seriously as only $29 \%$ of persons suffering get proper treatment, while the rest even fails to recognize it. Aim: To assess the knowledge regarding hypertension among the age group (20-60)years with a view to prepare guidelines of the same in a selected community area. Methods: Exploratory study on 60 individual under the age of 20-60 years was done. This study was conducted in the Jamalpur community area of Ludhiana, during the month of June 2009. A structured questionnaire used to collect the data about sociodemographic characteristics and items related to knowledge questionnaire regarding hypertension. Results: Maximum number of respondents were in the age group 31-40 years and least number of respondents were in the age group of 51-60 years. The highest mean knowledge score was found in the age group of 31-40 years (22) and the lowest mean was found in the age group of 41-50 years(15.6). The difference was found to be statically significant at $p<0.05$ level. Conclusion: Finding shows that the majority of the subjects had good knowledge regarding hypertension .According to the relationship between knowledge and hypertension among age group of 20-60 years with sociodemographic variables had significant impact.


Recommendations: Comparative study can be conducted between rural and urban community to assess the knowledge regarding hypertension.
Keywords: knowledge, Hypertension, Guidelines.

## I. Introduction

The higher the prevalence of cardiovascular and cerebrovascular and renal disease in a population, the greater is the importance of hypertension. (Newell K. et al1995) ${ }^{1}$. The prevalence of hypertension according to new criteria ( $>140 / 90 \mathrm{mmHg}$ ) varies between $15-35 \%$ in urban adult population of Asia(Singh R.B,2000) ${ }^{2}$ WHO indicated that 166 million people around the world die of cardiovascular diseases each year (WHO,2003) ${ }^{3}$. WHO estimates that 600 million people with high blood pressure are at risk of heart attack, stroke and cardiac failure(WHO,2002) ${ }^{4}$.A study conducted at The Tulane University school of public health ${ }^{5}$ stated that the prevalence of hypertension will soar to 1.56 billion by the year 2025(Kearney PM et al,2005) ${ }^{6}$.In North India study on general urban population prevalence of hypertension was found to be $23.71 \%$ while in western region general population $26 \%$ against adult population in a village was $36 \%$ in Nagpur district, prevalence rose from $4 \%$ in young to $17.2 \%$ in 60 and above age group.(Joshi SY et al,2000) ${ }^{7}$.
An exploratory study to assess the knowledge regarding hypertension among age group( 20-60years).....

## II. Aim of the study

To assess the knowledge regarding hypertension among the age group (20-60)years with a view to prepare guidelines of the same in a selected community area.

## Assumption

Age group (20-60) years having some knowledge regarding hypertension in community area.

## Delimitations

The study is limited to selected community area between the age group of (20-60) years. The study is limited to those who want to participate.

## III. Methodology

Approach : Exploratory approach.
Design: Non-experimental research design.
Setting: This study was conducted in the selected Jamalpur community area of Ludhiana, Punjab.
Sampling technique: Purposive sampling technique.
Sample size: 60 individuals of age group between (20-60) years.

## Development of tool

The tool was constructed to assess the knowledge of age group between (20-60) years regarding hypertension. An extensive review of literature, experts opinion and the investigators professional experience and informal interviews with subjects provide basis for the construction of structured questionnaire tool.

## Description of tool:

Structured knowledge Questionnaire was used to collect the data. Performa was filled by the investigator for subjects who were not able to read and understand it. The purpose of the study is to assess the knowledge of subjects regarding hypertension and prepare the guidelines for improvement in deficit areas. In order to collect the required information systematically and to get free and frank opinions from the subjects, questionnaire technique was thought to be most appropriate for study.
The structured tool was used in the present study \& it has two parts:
Part - I: Demographic Variables.
Part - II: Structured Knowledge Questionnaire to assess the knowledge regarding hypertension.

## Part-I : Demographic Variable

It is designed to provide background information with independent variables such as age, gender, marital status,education, occupation,type of family, monthly income, dietary habits,smoking history, alcoholic history, hypertensive history, hypertensive family member \& source of information.
An exploratory study to assess knowledge regarding hypertension among age group(20-60years) $\qquad$

## Part- II: Structured Knowledge Questionnaire

This part consist of 26 questions regarding knowledge of hypertension among age group of (20-60) years. Each correct answer carry one mark and wrong answer carries zero mark.

## Content validity of the tool

To ensure the content validity of the tool the structured questionnaire of the knowledge regarding hypertension among the age group of (20-60) years was submitted to the (6) experts in the field of Medical Surgical Nursing, Community Health Nursing, Paediatric Nursing, Obstetrical Nursing and Psychiatric Nursing. The experts were requested to give their valuable opinions and precious suggestions for the purpose to develop a better tool to conduct study, changes has been made and items were deleted and added in knowledge questionnaire as per their suggestions.

## Ethical consideration

A written permission from head of community department, CMC and Hospital Ludhiana was taken before launching the study. An informed verbal consent from subjects was taken. Anonymity of subjects and confidentiality of information was maintained.

## Pilot Study

The pilot study was conducted in $1^{\text {st }}$ week of May on 6 subjects at Jamalpur a semi-urban area of Ludhiana, to identify the reliability of the tool and feasibility of the study. The reliability of the tool was 0.8 , hence the tool was reliable.

## Data collection procedure

Before commencing the task of data collection formal permission was obtained from Head of Department of Social and Preventive Medicine, Christian Medical College and Hospital, Ludhiana .The data collection for the study was carried out from $11^{\text {th }}$ May 2009.The researcher had taken verbal permission from the public prior to interview. The investigator introduced herself to the respondent and explained purposes of
gathering information. They were assured that their response would be kept confidential and used only for research purposes. The researcher collected data from subjects by home visiting. Investigator had spend 30-45 minutes with each subjects. At the end of the interview 5-10 minutes were utilized to enhance their knowledge.

## Plan for data analysis

Analysis of the data was done by using descriptive and inferential statistics such as mean, mean percentage, standard deviation, degree of freedom and ' $t$ ' test value. An exploratory study to assess the knowledge regarding hypertension among the age group (20-60years)

## IV. Result and Findings

Table: $\mathbf{1}$ frequency and percentage Distribution of Sample Characteristics N=60

| Sr. no | Demographic Characteristics | n | \% |
| :---: | :---: | :---: | :---: |
| 1. | Age (in years) |  |  |
|  | a) 21-30 | 15 | 25 |
|  | b) 31-40 | 18 | 30 |
|  | c) $41-50$ | 15 | 25 |
|  | d) 51-60 | 12 | 20 |
| 2. | Gender |  |  |
|  | a) Male | 25 | 41.66 |
|  | b) Female | 35 | 58.34 |
| 3. | Marital status |  |  |
|  | a) Married | 51 | 85 |
|  | b) Unmarried | 9 | 15 |
| 4. | Education |  |  |
|  | a) Illiterate | 1 | 1.6 |
|  | b) Primary | 7 | 11.6 |
|  | c) Metric | 14 | 23.33 |
|  | d) $10+2$ | 13 | 21.6 |
|  | e) Above 10+2 | 25 | 41.6 |
| 5. | Occupation |  |  |
|  | a) Laborer | 5 | 8.3 |
|  | b) Service | 19 | 31.6 |
|  | c) Business | 19 | 31.6 |
|  | d) Other | 17 | 28.3 |
| 6. | Type of family |  |  |
|  | a) Joint | 28 | 46.6 |
|  | b) Nuclear | 32 | 53.3 |
| 7. | Monthly Income |  |  |
|  | a) Rs. < 5000/- | 13 | 21.6 |
|  | b) Rs. 5001-10,000/- | 24 | 40.1 |
|  | c) Rs. > 10,001/- | 23 | 38.3 |
| 8. | Dietary Habits |  |  |
|  | a) Vegetarian | 36 | 60 |
|  | b) Non- Vegetarian | 24 | 40 |
| 9. | Smoking history |  |  |
|  | a) Yes | 7 | 11.6 |
|  | b) No | 53 | 88.37 |
| 10. | Alcoholic history |  |  |
|  | a) Yes | 9 | 15 |
|  | b) No | 51 | 85 |
| 11. | Hypertensive history |  |  |
|  | a) No | 34 | 56.66 |
|  | b) <2 years | 10 | 16.66 |
|  | c) 2-5 years | 8 | 13.33 |
|  | d) $>5$ years | 8 | 13.33 |
| 12. | Hypertensive Family member |  |  |
|  | a) Yes | 24 | 40 |
|  | b) No | 36 | 60 |
| 13. | Source of Information |  |  |
|  | a) Newspaper | 13 | 21.6 |
|  | b) TV, Newspaper | 22 | 36.6 |
|  | c) TV, Newspaper, Health Personal | 25 | 41.66 |

Table 1 depicts that the subject studied are distributed into various categories according to their age, gender, marital status, education, occupation,type of family, monthly income, dietary habits, smoking history, alcoholic history, hypertension history, hypertensive family member, source of information.

An exploratory study to assess the knowledge regarding hypertension among age group(20-60years)
Table: 2 Frequency and percentage distribution of knowledge regarding hypertension

| Level of Knowledge | Knowledge <br> score |  |
| :--- | :--- | :---: |
|  | frequency | percentage |
| Below average 31-50\% (7-12) | 3 | 5 |
| Average $51-70 \%(13-18)$ | 22 | 36.6 |
| Good 71-90\%(19-24) | 34 | 56.6 |
| Excellent $>91 \%(>25)$ | 1 | 1.6 |

Table :2 (a) Mean percentage and Rank order of areas of knowledge of individuals (subjects) regarding hypertension among age group (20-60 years).

| Areas of Knowledge | Max. mean score | Mean | Mean \% | Rank |
| :--- | :--- | :--- | :--- | :--- |
| Introduction, definition, risk factors | 10 | 7.75 | 77.5 | 1 |
| Manifestations and investigations | 5 | 3.4 | 68.33 | 4 |
| preventions | 5 | 4.61 | 76.94 | 2 |
| Management and complications | 6 | 3.68 | 73.61 | 3 |

## Maximum score=26

## Minimum score $=0$

Table 2 state that the subjects had highest mean percentage knowledge score $77.5 \%$ in area of introduction, definition and risk factors, followed by almost similar score 76.94 and 73.61 and the lowest knowledge 68.33 in the area of manifestations and investigations.

## V. Discussion

In this part of the chapter, an attempt has been made to discuss the findings of the study in accordance with the objectives of the research.

Egun Brent M, et al (2002) ${ }^{7}$ states that among Americans 50 years or older, $94 \%$ had at least one blood pressure measurement. They concluded that limited knowledge emerges as a threat to blood pressure control. In our study we found that majority of Subjects had good knowledge regarding hypertension i.e. $56.6 \%$ and 5\% had below average knowledge.A study by Aubert Line et al (2000) ${ }^{\mathbf{8}}$ knowledge attitude and practices on hypertension on a country in epidemiological transition. It examined Knowledge attitude and Practice on hypertension in a random sample of 1067 adults aged $25 \sim 65$ years. Most persons whether non hypertensive unaware hypertensive or aware hypertensive had good basic knowledge related hypertensive persons with other concurrent disease, such as diabetes mellitus knew well the detrimental effects of hypertension. These data point to the need to maximize the efficiency of hypertension prevention by maximizing the knowledge of people.
Williams Musk Y, et al (2003) ${ }^{9}$ did a study: Relationship of Health Literacy to patient's knowledge of hypertension concluded that were a total of $92 \%$ of persons with hypertension know that a blood pressure reading of $160 / 100 \mathrm{mmHg}$ was high. In our study we found that majority of the subjects had good knowledge regarding hypertension i.e. $56.6 \%$ and $5 \%$ had below averages knowledge. In our study we found that highest mean knowledge score was found among subject who had an educational status. So, it can be concluded that as education and increases the knowledge regarding hypertension. In our study statistically we found that age is a significant variable that affects the knowledge regarding hypertension.
An exploratory study to assess the knowledge regarding hypertension among age group (20-60years).......

## VI. Conclusion

Findings shows that majority of subjects has good knowledge according to the relationship of knowledge among age group of (20-60) years regarding hypertension with selected variables age and source of information had significant impact where as gender, marital status, education, occupation, type of family, monthly income, dietary habits, smoking history, alcoholic history, hypertensive history and hypertensive family member had non significant impact.

## Recommendations

1. A quasi experimental study can be conducted on a small group.
2. An exploratory study to assess the knowledge, and practice towards prevention of hypertension.
3. A comparative study between urban and rural community can be done to assess the knowledge related to hypertension.

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