

A Descriptive Study to Assess Knowledge and Practice Regarding Hypertension Among Adults in Selected Areas of Jawahar Colony, Nit Faridabad

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ABSTRACT:

A descriptive study to assess the knowledge and practice of Hypertension among adults in Jawahar colony NIT Faridabad. The objective of the study was to assess the knowledge and practices on Hypertension among adults, to find out the association between the level of knowledge and practice on hypertension with selected demographic variables.

The data collection procedure was carried out on April, 2018. The sample was taken from the Jawahar colony. Sample of 100 adults was taken. Demographic variables for the study Age, Gender, Education status, Occupation, Religion, Monthly Income, Previous Source of Knowledge, Type of Family.

The selected sample was explained about the purpose and methods used in study, purpose of study were explained & written consent to participate in the study was obtained. The average time taken per adults was 20 minutes.

The gathered data was analyzed by calculating the mean, percentage, standard deviation, Chi – square. The pie, bar diagrams and tables were used to present the findings of the study.

The findings depicts that majority of adults (29%) were in age category of 20-30 years, (59%) of the adults were male. Majority of adults (39%) had secondary education and (38%) of the population having housewife. Most of the adults (52%) had the family income 10000-20000Rs. (40%) had previous knowledge about the hypertension in adults were 51% of total subjects had poor knowledge, 45% had average knowledge, and (04%) had good knowledge.

The knowledge score of the adults when compared with demographic variables revealed **significant** association found between level of knowledge & demographic variables **educational status**. No **association found** between levels of knowledge and practices with demographic variables like **age, economic status, religion, gender, previous source of knowledge, type of family and occupation**

INTRODUCTION

“We cannot change our genes or sex, but we can definitely modify our life style thereby protecting our self from hypertension.”

Robert C Schlant (2015)

Hypertension, the silent killer which remains asymptomatic until the damage effect of it can be seen. Hypertension is an important and common risk factor for considerable morbidity and mortality not only in the industrialized world but also in developing countries. Thus, the problem of hypertension can be truly considered as pandemic.

A study conducted on prevalence of hypertension report that 972 million people in the world are suffering

with this problem. Incidents rate of hypertension range between 3 and 18% depending on the age, gender ethnicity and body size of the population studied

The factors contributing to the increased prevalence of hypertension is mainly based on environmental factors, genetic factors and factors like alcohol intake, high fat intake, body mass index and hormonal problems/ hypertensive when compared to normotensives develops twice as much as coronary heart disease, four times as much congestive heart failure and seven times as much stroke. These risk factors can be conquered through lifestyle modification.¹

Life style modifications are universally accepted, not only as the first step in the management of hypertension but also as a way to prevent hypertension. In addition to lowering blood pressure, these measures can also reduce other cardio vascular risk factors. This cost involved is minimal and there are hardly any risks. Hypertensive patients irrespective of this stage or grade should be motivated to adopt these measures The United Nation has focused on increasing burden of non communicable disease (NCD's) in middle and low income countries and has called for reducing this burden WHO has proposed comprehensive plan to reduce smoking and tobacco use , harmful alcohol use , salt intake , physical inactivity , and elevated blood pressure and glucose level to reduce the risk of premature mortality from NCD's under the NCD Global Monitoring Framework .

Among the NCD's the most important target is to reduction in mortality from cardiovascular disease and WHO has proposed , and participating countries have agreed , for relative reduction in tobacco used by 30 %.

NEED OF THE STUDY

High blood pressure is the main risk factor for suffering and dying as a consequence of premature cardiovascular events and is the second leading cause of disability in the world . It is also the main cause of Ischemic Heart Disease and Stroke. Other complications known as significant due to poor blood pressure control are dilated heart disease, heart failure and arrhythmias.⁶

The incidence of hypertension has doubled in the last 5 years in all social strata. It is estimated that between 20 % and 40 % of the adult population in the region of the Americas suffer from hypertension. At the Global level, it is estimated that of the people with hypertension, only 57 % know their condition, 40.6 % receive antihypertensive drug treatment but only 13.2% achieve controlled blood pressure figure .This gap between number of hypertensive patients, the access to treatment and the achievement of control is accentuated in the middle and low and income countries where 80% of the burden attributed to cardiovascular disease occur.

While high blood pressure is not curable, it can be prevented and the treatment to keep blood pressure figures below 140/90 mmHg. Adequate control is the cost effective measure to avoid premature deaths. If we manage to control half of the population with uncontrolled hypertension, including those treated with suboptimal and untreated blood pressure values, 10 million deaths globally could be prevented in 10 years due to cardiovascular events.

PAHO/WHO works with member states and its partners to improve programs for the control of hypertension , to promote policies that favor preventing and projects that contribute to the training and updating of health personnel , especially at the primary care level initiated a Cardiovascular Risk Reduction initiative through the control of hypertension in order to support the Ministries of Health to improve the control of hypertension and reduce the premature deaths associated with cardiovascular diseases. This initiative includes as essential elements the establishment of standardized treatment

algorithms, improved access to a set of basic medicines, distribution of tasks in the health team, and patient registration and performance.

STATEMENT OF THE PROBLEM

“A descriptive study to assess the knowledge and practice of hypertension among adults in selected areas of Faridabad”

OBJECTIVES

1. To assess the level of knowledge of adults regarding Hypertension.
2. To assess the level of practices of adults regarding Hypertension.
3. To assess the co relation between knowledge and practice of adults regarding Hypertension.
4. To assess the association of the knowledge and practice of adults regarding Hypertension.

HYPOTHESIS

H1: There will be a significant correlation between the knowledge and practice of adults regarding hypertension self care activities.

H2: There will be a significant association of the knowledge and practice of adult regarding hypertension self care activities

RESEARCH METHODOLOGY

The methodology of research indicates the general pattern of organising the procedure of gathering valid and reliable data for the purpose of investigation.

The methodology of the study include the research design, the choices of research approach, the setting of the study, description of population, sample and sampling technique, criteria for inclusion in the study, methods of data collection and method of analysis based on the statement and objective of the study.

RESEARCH APPROACH

A quantitative research approach.

RESESARCH DESIGN

Descriptive research design.

SETTING

This study was conducted via offline at faridabad.

SAMPLE

Sample refers to the adults 18-40 years living in Jawahar colony NIT Faridabad.

SAMPLE SIZE

The sample size of the present study comprises of 100 adult .

SAMPLING TECHNIQUE

Convenient sampling was used to collect data in the presence study

INCLUSION CRITERIA

- The sample consists of hypertension people:
- Living in urban area of Jawahar colony NIT Faridabad, Haryana
- Willing to participate in the study.
- Available in the setting.
- At the time of data collection.
- Who are able to read English

EXCLUSION CRITERIA

The study excludes hypertension people:

- Who are not willing to participate in the study
- Who are not available during the data collection period
- Who are not able to read English

DATA COLLECTION PROCEDURE

The investigator had the following phase in the data collection.

Phase 1st: - After obtaining the permission from the concerned authority and informed consent from the sample, investigator will collect the base line demographic data.

Phase 2nd: - The investigator will administered the self administered questionnaire to assess the knowledge of adults regarding hypertension.

Phase 3rd: - The investigator will administered checklist to assess the level of practice of adults regarding hypertension

PLAN FOR DATA ANALYSIS

The data collected will be analyzed by using descriptive and inferential statistics Descriptive statistics: - frequency, percentage distribution, mean, standard deviation

Inferential statistics: - Karl's Pearson co relation coefficient r will be used to correlate knowledge and practice of adults regarding hypertension.

ORGANIZATION OF THE DATA ANALYSIS

The analyzed data has been organized and presented in the following section.

Section A: Description of samples according to demographic characteristics by frequency and percentage.

Section B: Assessing the level of knowledge regarding the hypertension self care activities in adults among urban area.

Section C: Assessing the level of practice of adults regarding hypertension self care activities.

Section D: Analysis the co relation between the knowledge and practice score of the adult regarding Hypertension.

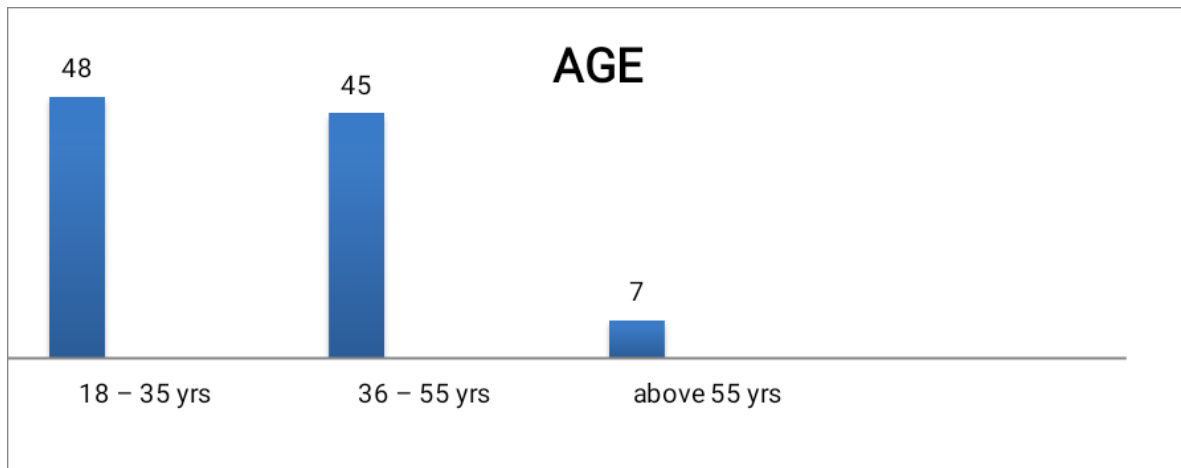
Section E: Analysis of the association level of knowledge and practice with their selected demographic variables of the adults regarding Hypertension.

Section A: Description of samples according to demographic characteristics by frequency and percentage.

Table 1.a: Frequency and percentage distribution of demographic profile of adults with respect to age.

S.No.	Demographic Variable	Character	f	%
1.	AGE	Young adults (18 – 35 yrs)	48	48%
2.		Middle aged (36 – 55 yrs)	45	45%
3.		Older adults (above 55 yrs)	7	7%

The above table represents the **Age** distribution of adults who have participated in the study. **7%** adults were in the age group of **Older adults** (above 55 yrs), **45%** adults were found in the age group of **Middle aged** (36 – 55 yrs) and **48%** adults were found in the age group of **Young adults** (18 – 35 yrs) . The **maximum** participant in the research study was from the age group of **Young adults** (18 – 35 yrs) .

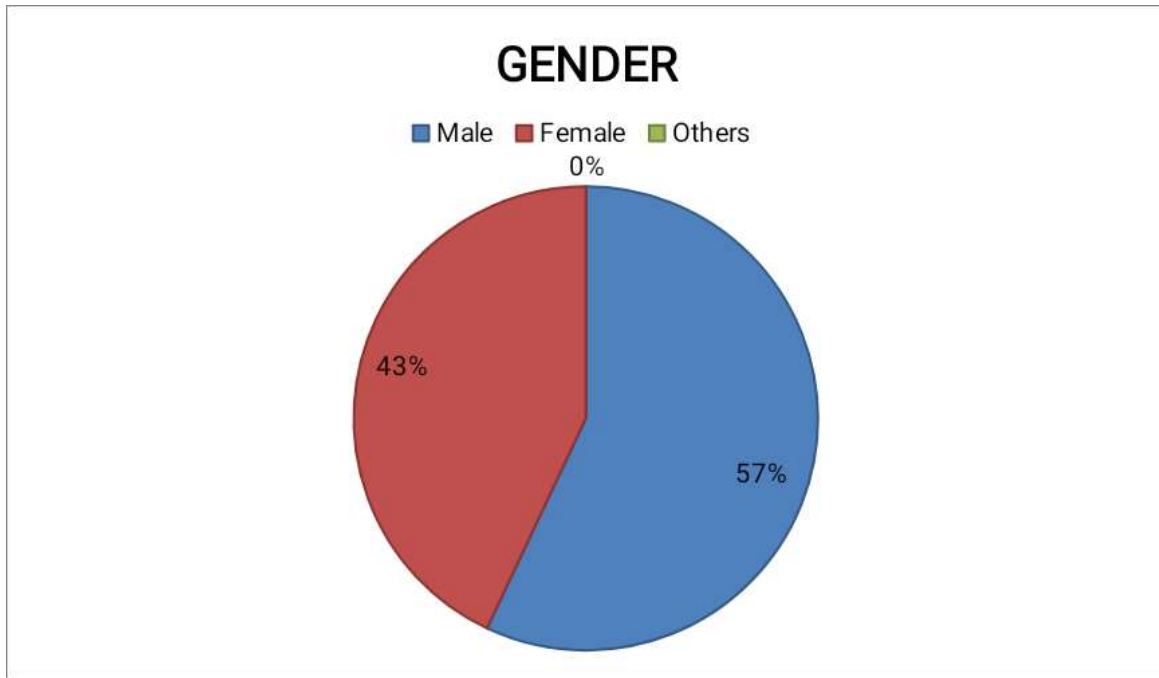


Graph 1.a- Frequency and percentage distribution of demographic profile of adults with respect to age.

Table 1.b: Frequency and percentage distribution of demographic profile of adults with respect to Gender .

S. No.	Demographic Variable	Character	f	%
1	GENDER	Male	57	57%
2		Female	43	43%
3		Others	0	0%

The above table represents the **Gender** distribution of adults who have participated in the study. **57%** adults was **Male** and remaining **43%** adults was **Female** and no adult found in other Gender Group. The **maximum** participant in the research study was **Male (57%)** from Gender Group.

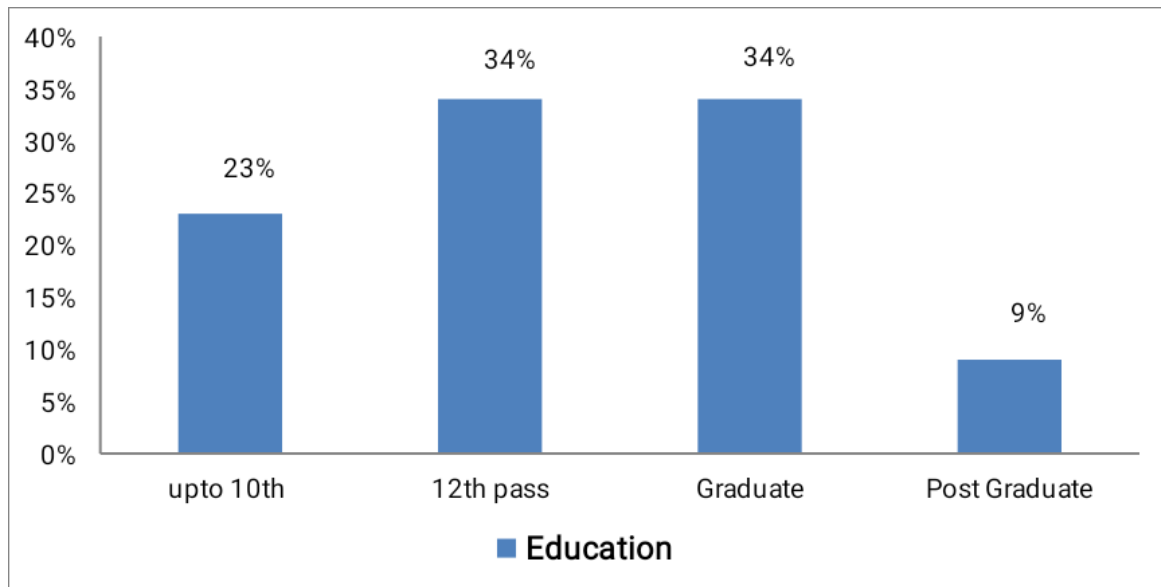


Graph 1.b: Frequency and percentage distribution of demographic profile of adults with respect to Gender.

Table 1.c: Frequency and percentage distribution of demographic profile of adults with respect to Education.

S. No.	Demographic Variable	Character	f	%
1	EDUCATION	Below and Up to 10 th pass (secondary education)	23	23%
2		12th pass (Matriculation)	34	34%
3		Graduate	34	34%
4		Post Graduate	9	9%

The above table represents the **Education** distribution of adults who have participated in the study. **9%** adults were **Post Graduate** , **34 %** adults were **Graduate** ,**34%** adults were **12th pass (Matriculation)**, and **23 %** of the adults were **Below and Up to 10th pass (secondary education)** . The **maximum participant** in the research study was from **12th pass (Matriculation) & Graduate**.

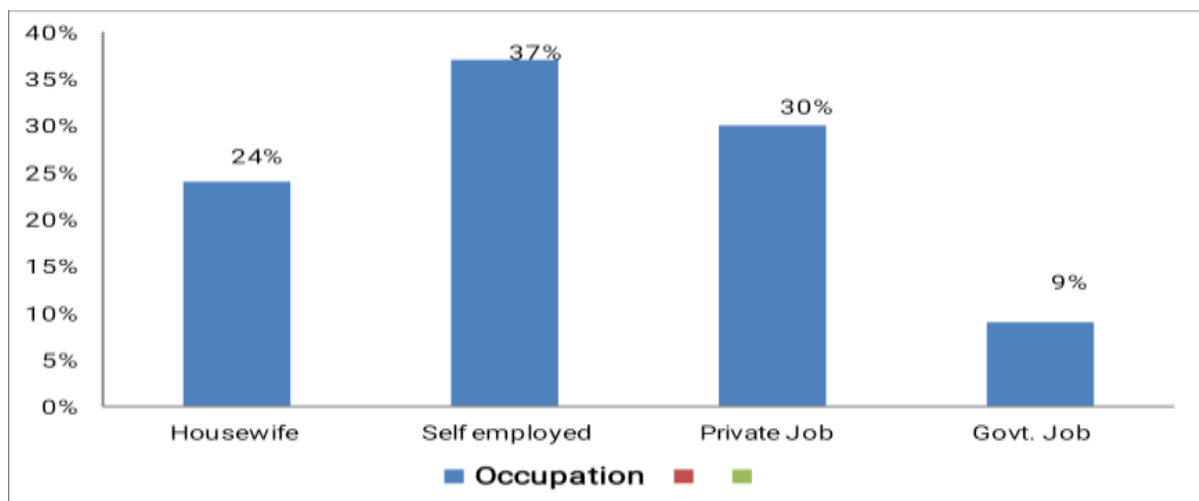


Graph 1.c: Frequency and percentage distribution of demographic profile of adults with respect to Education .

Table 1.d : Frequency and percentage distribution of demographic profile of adults with respect to Occupation .

S. No.	Demographic Variable	Character	F	%
1	OCCUPATION	Housewife	24	24%
2		Self employed	37	37%
3		Private Job	30	30%
4		Govt. Job	9	9%

The above table represents the **Occupation** distribution of adults who have participated in the study .24% adults were **housewife** , 37% adults were **Self employed** , 30% adults were **Private Job** and 9% adults were **Govt. Job** . The **maximum participant** in the research study was from the **Self employed**.



Graph 1.d : Frequency and percentage distribution of demographic profile of adults with respect to Occupation .

Table 1.e : Frequency and percentage distribution of demographic profile of adults with respect to Economic status .

S.No.	Demographic Variable	Character	F	%
1	Economic status	Up to 10,000 Rs	29	29%
2		10,000- 20,000 Rs	35	35%
3		20,000- 30,000 Rs	23	23%
4		More than 30,000 Rs	13	13%

The above table represents the **Economic status** distribution of adults who have participated in the study. **29%** adults has **Up to 10,000 Rs** , **35%** adults has **10,000- 20,000 Rs** ,**23%** adults has **20,000- 30,000 Rs** and **13%** adults has **More than 30,000 Rs**. The **maximum** participant in the research study was from the **10,000- 20,000 Rs** .

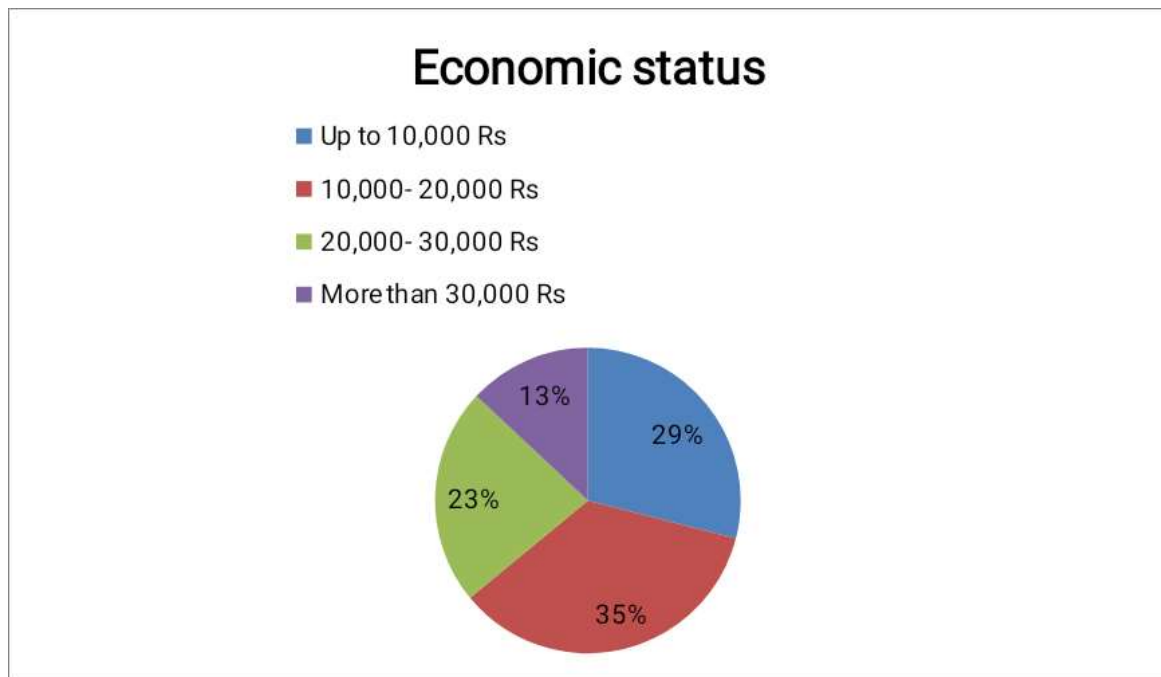
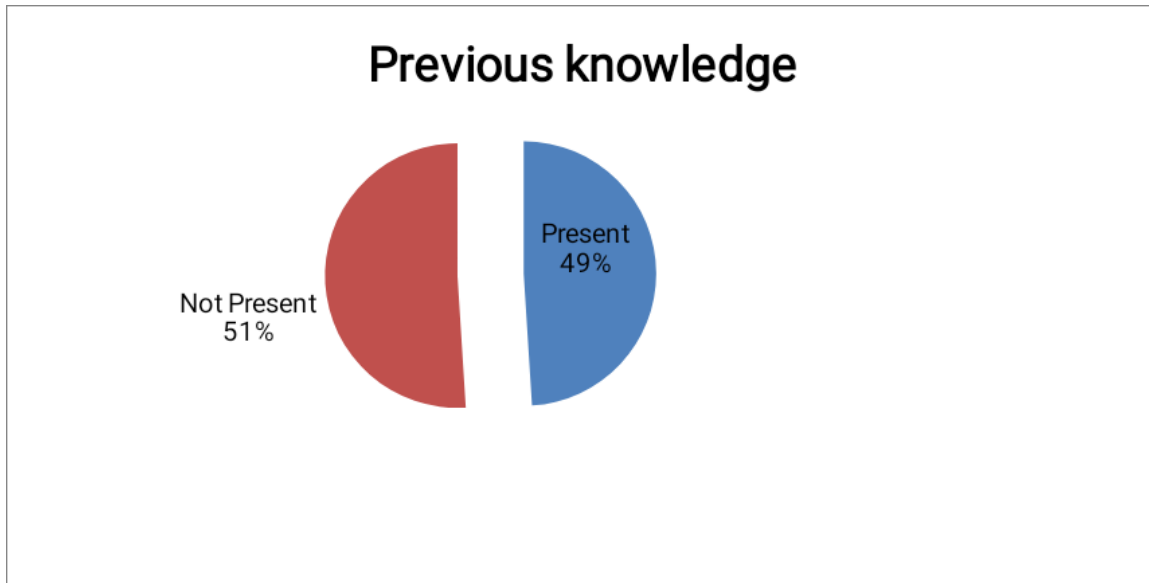


Table 1.e : Frequency and percentage distribution of demographic profile of adults with respect to Economic status .

Table 1.f : Frequency and percentage distribution of demographic profile of adults with respect to Previous knowledge .

S.No.	Demographic Variable	Character	F	%
1	Previous knowledge	Present	49	49%
2		Not Present	51	51%

The above table represents the **Previous Knowledge** distribution of adults who have participated in the study. **49%** adults have knowledge regarding hypertension and **51%** adults don't have previous knowledge regarding hypertension. The maximum participant in the research study were **51%** who don't have previous knowledge regarding hypertension.

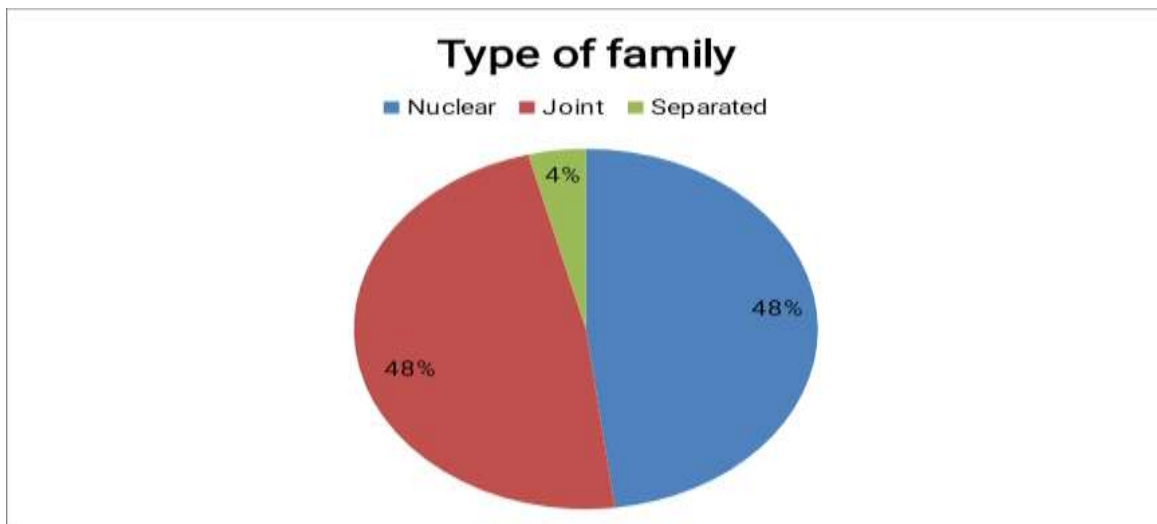


Graph 1.f : Frequency and percentage distribution of demographic profile of adults with respect to Previous knowledge .

Table 1.g : Frequency and percentage distribution of demographic profile of adults with respect to Type of family.

S. No.	Demographic Variable	Character	f	%
1	Type of family	Nuclear	48	48%
2		Joint	48	48%
3		Separated	4	4%

The above table represents the **Type of family** distribution of adults who have participated in the study . **48%** adults belongs to **nuclear family** , **48%** adults belongs to joint family and **4%** adults belongs to separated family .The maximum participant in the research study was from the both Nuclear(48%) & Joint(48%) .



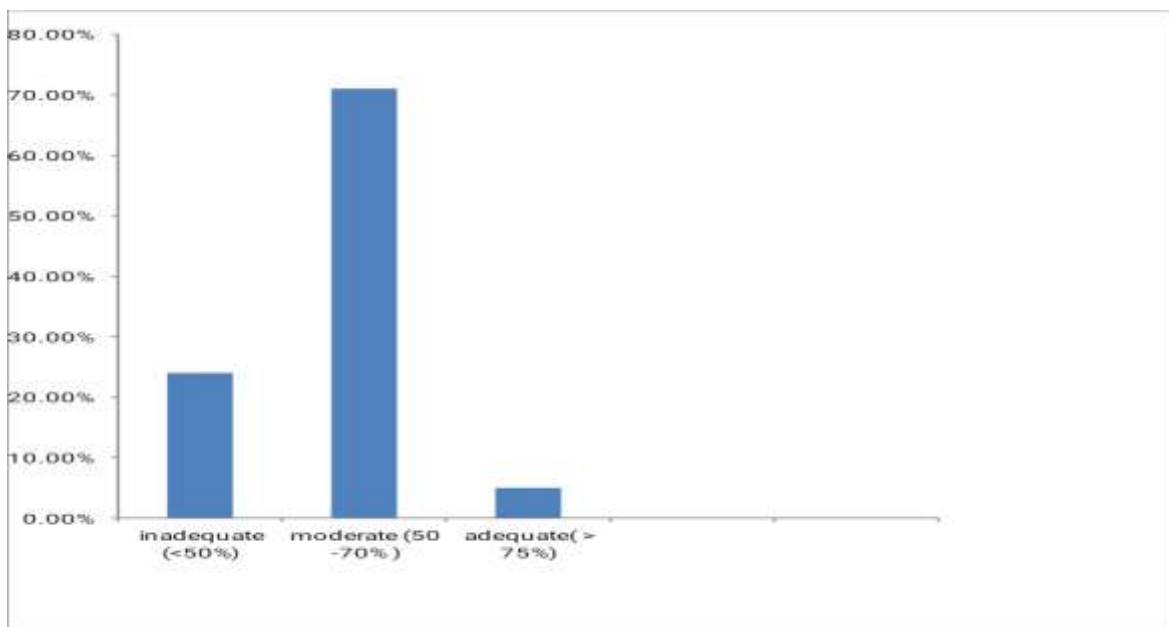
Graph 1.g: Frequency and percentage distribution of demographic profile of adults with respect to Type of family.

Section B: Assessing the level of knowledge regarding the hypertension self care activities in adults among urban area.

Table 2 a: The knowledge level of adults regarding hypertension self care activities in urban area.
N=100

S.No.	Aspects of Knowledge	LEVEL OF KNOWLEDGE					
		adequate (<50%)		Moderate (50-75%)		adequate (>75%)	
		No.	%	No.	%	No.	%
1	Definition & Incidence	40	12.86%	54	17.36%	6	1.93%
2	Etiology Risk Factor,	24	10%	75	31.25%	1	0.4166%
3	Sign& Symptoms Diagnosis	38	16.30%	54	23.17%	8	3.4334%
4	Management , Prevention & Treatment	28	9.52%	63	21.42%	9	3.0612%
	Overall	24	24%	71	71%	5	5%

The above **table 2.a.** shows the overall knowledge among adults regarding hypertension self care activities in urban area. About **24%** of adults had **moderate knowledge**, whereas **0%** of adults had **adequate knowledge** and about **76%** of adults had **inadequate knowledge** regarding hypertension self care activities.



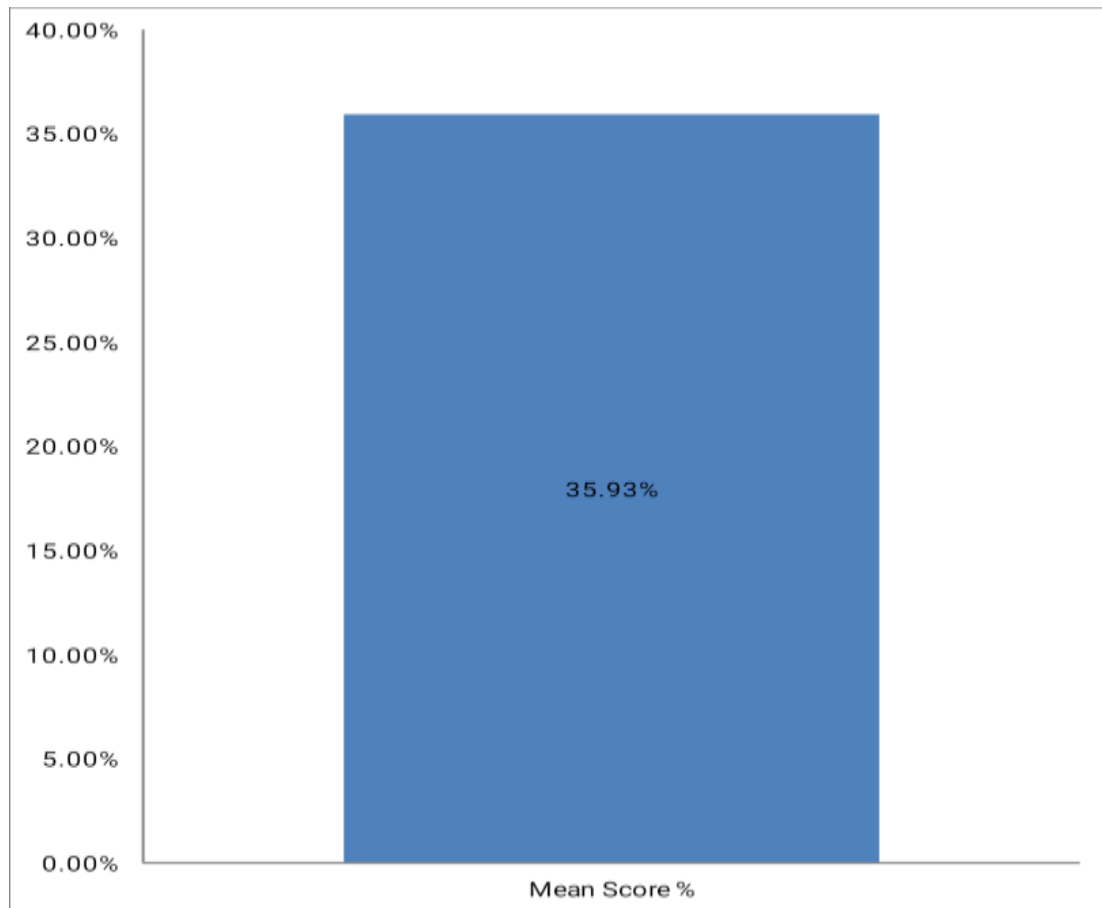
Graph 2 a: The knowledge level of adults regarding hypertension self care activities in urban area.

Table 2.b: Mean , S.D., Range, Mean score percentage of knowledge score.

N=100

S.No.	Knowledge	Max. possible score	Mean	SD	Range	Mean Score %
1	Definition & Incidence	7	3.11	1.708	7	38.87%
2	Etiology Risk Factor,	7	2.40	1.456	7	30%
3	Sign& Symptoms Diagnosis	6	2.33	1.503	6	38.83%
4	Management, Prevention & Treatment	6	2.94	1.707	6	36.75%
	Overall	23	10.78	4.778	21	35.93%

The above **table 2.b.** shows summary of statistical outcomes of adults’ knowledge regarding care of hypertension. Overall maximum knowledge Score of adults was. The **mean score** was **10.78**, with **standard deviation 4.778**, and **range** from 02-23=**21**. The mean score percentage was computed and it was found to be 35.93%. From the above result it was found that the sampled subjects were having moderate knowledge regarding care of hypertension.



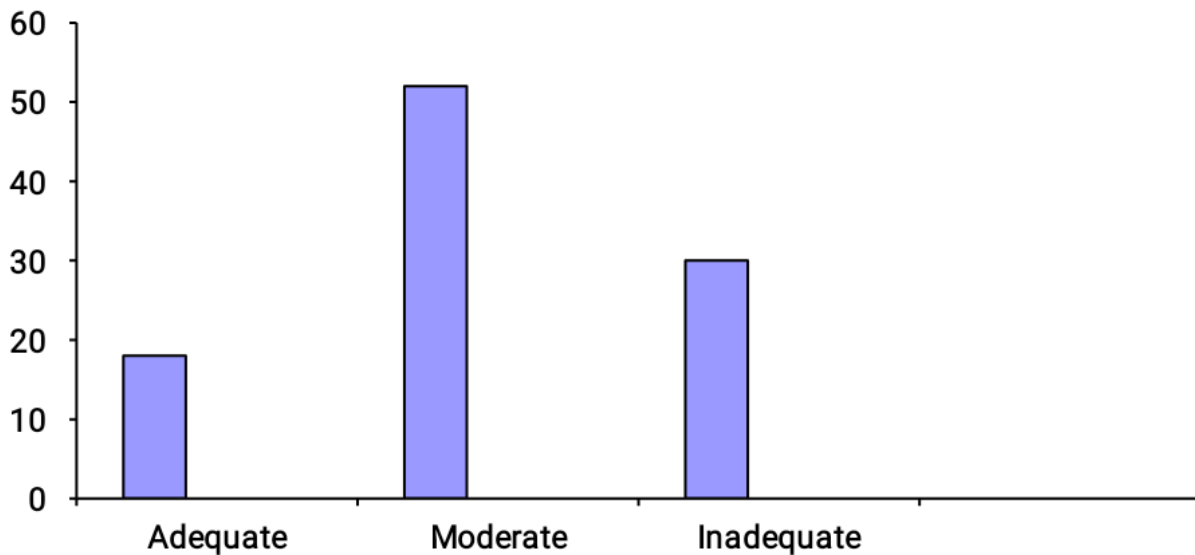
Graph 2.b: Mean score percentage of knowledge score.

Section C: Assessing the level of practice of adults regarding the care of hypertension among adults in Urban areas.

Table 3.a: The practice level of adults regarding the care of hypertension among adults in Urban area .
N=100

S.No.	Level of Practice	F	%
1	Inadequate Practice	18	18%
2	Moderate Practice	52	52%
3	Adequate Practice	30	30%
Overall		100	100%

The above table 3.a. shows the overall practice of adults regarding care of hypertension. About 52% of adults had **moderate practice**, whereas 30% of adults had **adequate practice** and 18% had **inadequate practice** regarding care of hypertension.

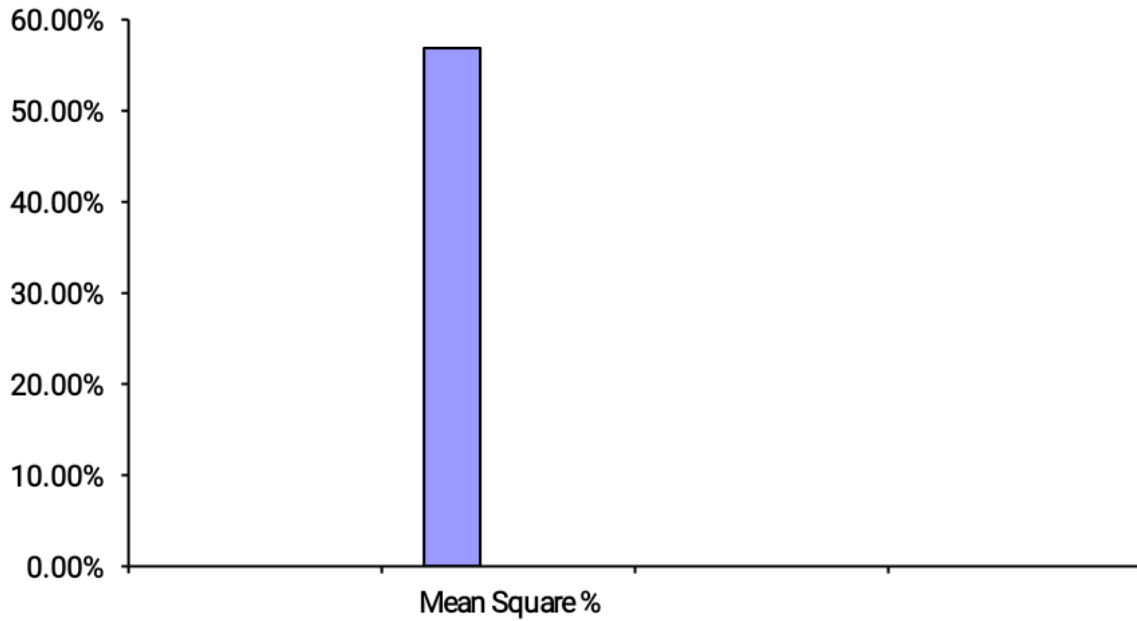


Graph 3.a: The practice level of adults regarding the care of hypertension among adults in urban area.

Table 3.b: Mean, S.D., Mean Score percentage of practice score.
N=100

S.No.	Practice	Max Possible Score	Mean	SD	Range	Mean Score %
1	Practice on hypertension patient	10	5.69	3.635	10	56.9%

The above table 3.b. shows summary of statistical outcomes of adults practice regarding care of hypertension patient. Overall maximum practice score of adults was. The mean score was 10, with standard deviation 3.635 and range from 0 to 10 . The mean score percentage was computed and it was found to be .



Graph 3.b: assessment of mean percentage of practice among adults in Urban area.

Section-D: analysis of rank correlation between the knowledge and practice score of adults regarding hypertension self care activities.

Table 4.a rank correlation between the knowledge and practice score of adults regarding hypertension self care activities in Urban areas.

Identify rank co-relation by Karl Sparkman correlation method.

N=100

S.No.	Title	Rk Value
1	Rank co-relation between the knowledge and practice scores in Urban areas.	0.7981

Table 4.a : co-relation of knowledge and practice

The above table shows rank co-relation between knowledge and practice of adults regarding hypertension self care activities in urban areas . The result of **rk =0.7981**. It indicates that there is the **co-relation between knowledge and practice** of adults regarding hypertension self care activities.

Section E : Analysis of the association level of knowledge and practice with their selected demographic variables of the adult regarding Hypertension.

Table 5.a: Association of knowledge of adults regarding Hypertension according to AGE.
N=100

S.No.	Age	Level of Knowledge						Total		Chi square	P Value
		Inadequate (<50%)		Moderate (50-75%)		Adequate (>75%)		No.	%		
		No.	%	No.	%	No.	%				
1	18 to 35 yr	42	42%	5	5%	0	0%	47	47%	8.40 df = 4 NS	P<0.05
2	36 to 55 yr	28	28%	16	16%	1	1%	45	45%		
3	Above 55 yr	5	5%	2	2%	1	1%	8	8%		

Note: S* denotes significant at demographical variable 5 (I.e.P>0.05) & NS denotes Not Significant.

Table 5.b: Association of knowledge of adults regarding Hypertension according to GENDER.
N=100

S.No.	Gender	Level of Knowledge						Total		Chi square	P Value
		Inadequate (<50%)		Moderate (50-75%)		Adequate (>75%)		No.	%		
		No.	%	No.	%	No.	%				
1	Male	38	38%	18	18%	1	1%	57	57%	4.01 df = 4 NS	0.05
2	Female	36	36%	7	7%	0	0%	43	43%		
3	Others	0	0%	0	0%	0	0%	0	0%		

Note : S* denotes significant at demographical variable 5 (I.e.P>0.05) & NS denotes Not Significant.

Table 5.c: Association of knowledge of adults regarding Hypertension according to EDUCATION.
N=100

S.No.	Education	Level of Knowledge						Total		Chi square	P Value
		Inadequate (<50%)		Moderate (50-75%)		Adequate (>75%)		No.	%		
		No.	%	No.	%	No.	%				
1	10 th pass	17	17%	6	6%	0	0%	23	23%	10.94 df = 6 NS	P<0.05
2	12 th pass	25	25%	9	9%	0	0%	34	34%		

									%
3	Graduate	24	24%	10	10%	0	0%	34	34%
4	Post Graduate	7	7%	1	1%	1	1%	9	9%

Note: S* denotes significant at demographical variable 5 (I.e.P>0.05) & NS denotes Not Significant

**Table 5.d: Association of knowledge of adults regarding Hypertension according to TYPE OF FAMILY.
N=100**

S.No	Type of Family	Level of Knowledge						Total		Chi square	P Value
		Inadequate (<50%)		Adequate (50-75%)		Inadequate (>75%)		No	%		
		No.	%	No.	%	No.	%				
1	Nuclear	40	40%	7	7%	0	0%	47	47%	8.47 df= 4 NS	0.05
2	Joint	32	32%	14	14%	1	1%	47	47%		
3	Separated	3	3%	1	1%	2	2%	6	6%		

Note: S* denotes significant at demographical variable 5 (I.e.P>0.05) & NS denotes Not Significant

**Table 5.e: Association of knowledge of adults regarding Hypertension according to the PREVIOUS KNOWLEDGE.
N=100**

S.No	Knowledge	Level of Knowledge						Total		Chi square	P Value
		Inadequate (<50%)		Adequate (50-75%)		Inadequate (>75%)		No	%		
		No.	%	No.	%	No.	%				
1	Present	38	38%	12	12%	0	0%	50	50%	5.61 df= 2 NS	0.05
2	Not Present	35	35%	14	14%	1	1%	50	50%		

Note: S* denotes significant at demographical variable 5 (I.e.P>0.05) & NS denotes Not Significant

Table 5.f: Association of practice of adults regarding Hypertension according to AGE.
N=100

S.No.	Age	Level of Practices						Total		Chi square	P Value
		Inadequate (<50%)		Moderate (50-75%)		Adequate (>75%)		No.	%		
		No.	%	No.	%	No.	%				
1	18 to 35 yr	18	18%	9	9%	20	20%	47	47%	7.6 f = 4 NS	0.05
2	36 to 55 yr	21	21%	1	1%	23	23%	45	45%		
3	Above 55 yr	3	3%	2	2%	3	3%	8	8%		

Note : S* denotes significant at demographical variable 5 (I.e.>0.05) & NS denotes Not Significant

Table 5.g: Association of practice of adults regarding Hypertension according to GENDER.
N=100

S.No.	Gender	Level of Practice						Total		Chi square	P Value
		Inadequate (<50%)		Moderate (50-75%)		Adequate (>75%)		No.	%		
		No.	%	No.	%	No.	%				
1	Male	18	18%	17	17%	22	22%	57	57%	5.09 f = 4 NS	0.05
2	Female	22	22%	6	6%	15	15%	43	43%		
3	Other	0	0%	0	0%	0	0%	0	0%		

Note : S* denotes significant at demographical variable 5 (I.e.P>0.05) & NS denotes Not Significant

Table 5.h: Association of practice of adults regarding Hypertension according to EDUCATION.
N=100

S.No.	Education	Level of Practices						Total		Chi square	P Value
		Inadequate (<50%)		Moderate (50-75%)		Adequate (>75%)		No.	%		
		No.	%	No.	%	No.	%				
1	10 th pass	17	17%	3	3%	3	3%	23	23%	10.66 f = 6 NS	0.05
2	12 th pass	12	12%	6	6%	16	16%	34	34%		
3	Graduate	11	11%	5	5%	17	17%	33	33%		
4	Post	2	2%	3	3%	5	5%	10	10%		

	Graduate								%	
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Note : S* denotes significant at demographical variable 5 (I,e.P>0.05) & NS denotes Not Significant

Table 5.i: Association of practice of adults regarding Hypertension according to TYPE OF FAMILY
N=100

S.No	Type of Family	Level of Practices						Total		Chi square	P Value
		Inadequate (<50%)		Moderate (50-75%)		Adequate (>75%)					
		No.	%	No.	%	No.	%	No.	%		
1	Nuclear	20	20%	11	11%	17	17%	48	48%	5.16 df= 2 NS	P<0.05
2	Joint	21	21%	5	5%	22	22%	48	48%		
3	Seprated	1	1%	2	2%	1	1%	4	4%		

Note : S* denotes significant at demographical variable 5 (I,e.P>0.05) & NS denotes Not Significant

Table 5j: Association of practice of adults regarding Hypertension according to the PREVIOUS KNOWLEDGE

N=100

S. No	Knowledge	Level of Practices						Total		Chi square	P Value
		Inadequate (<50%)		Moderate (50-75%)		Adequate (>75%)					
		No.	%	No.	%	No.	%	No.	%		
1	Present	16	16%	11	11%	23	23%	50	50%	5.61 df= 2 NS	P<0.05
2	Not Present	27	27%	6	6%	17	17%	50	50%		

Note : S* denotes significant at demographical variable 5 (I,e.P>0.05) & NS denotes Not Significant

Section-F: association of knowledge and practice of urban area regarding hypertension according to selected demographic variables.

N=100

Demographic Variable	Chi square		df	Result	Std. P value
	Knowledge	Practice			
Age	8.40	7.6	4	NS	0.5
Gender	4.01	5.09	4	NS	0.5
Education	10.94	10.66	6	NS	0.5

Type of Family	8.47	5.16	4	NS	0.5
Knowledge	1.28	5.61	2	NS	0.5

Note : S* denotes significant at demographical variable 5 (I,e.P>0.05) & NS denotes Not Significant

CONCLUSION

The following conclusions were drawn from the following findings of the study. While the samples were taken for study and the sample had moderate knowledge and practice regarding hypertension. So it was assessing that educated adults have moderate knowledge on practice regarding hypertension self care activities and there is need to improve knowledge and practices among primary educator adults. So the pamphlets were prepared to improve the knowledge and practices among the adults having less knowledge.

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