

Outcome of Community Based Hypertension awareness activity in the field practice area of KBNIMS, Kalaburagi

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Abstract

Background: Hypertension is one of our modern epidemics. Awareness on hypertension and its complication has become an integral and essential part not only for health professionals and the patients but also for the general population. **Objectives:** To assess the knowledge regarding hypertension in general population and the effect of awareness programme on their existing level of knowledge. **Methodology:** The present cross sectional study was carried out in the field practice area of UHC during the period of January to April 2017 involving 139 subjects with the help of systemic random sampling method. Knowledge assessment was done before and after administration of programme. The knowledge was graded as satisfactory and unsatisfactory based on the total score. The mean pretest and post test score was compared by using paired t test. The association between pretest score and the demographic variables was calculated with chi square test. **Results:** Out of total 139 subjects, 59% were males and 41% were females. 40.9% of subjects from 31-40 years age group had unsatisfactory knowledge about cause of hypertension compared to 14.5% of satisfactory knowledge from same age group. 23.1% illiterates had satisfactory knowledge of cause. 40.2% of subjects from 41-50 years age group had satisfactory knowledge of symptoms of hypertension followed by 29.9% from 51-60 years. Only 28.4% who studied upto PG had satisfactory knowledge. Knowledge about causes of hypertension revealed that mean pretest score was 8.92 ± 1.18 and mean post test score was 7.91 ± 1.71 . The difference was found to be significant. Knowledge about complications of hypertension revealed that mean pretest score was 1.89 ± 0.35 and mean post test score was 1.78 ± 0.45 where the difference is significant. **Conclusion:** Community based awareness programme on hypertension using various principles of health education was proved to be effective.

Key Word: Knowledge, health education, hypertension

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INTRODUCTION

Hypertension is defined as persistent elevation of systolic blood pressure (SBP) at a level of 140 mmHg or higher

and diastolic blood pressure (DBP) at a level of 90mmHg or higher. The higher the blood pressure greater the risk for heart attack, heart failure, stroke, and kidney disease. The incidence of hypertension according to joint national committee on prevention, detection, evaluation and treatment (JNC VII) more than half of the individuals from 60-69 years of age and 3/4th of t house 70 and older are affected by hypertension¹ The prevalence of hypertension was 59.9 and 69.9 per 1000 in males and females respectively in urban population, 35.5 and 35.9 per 1000 in males and females respectively in the rural population of India. High blood pressure is a major risk factor for mortality; the high mortality is due to complications of high blood pressure that is stroke, congestive cardiac failure, heart attack, and kidney

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failure. The higher the pressure greater the risk and lower the expectancy of life in India death from hypertension is mainly from stroke². Hypertension is a medical condition characterized by a continuous increase in the numbers of blood pressure above 135/85 mmHg and considered one of the problems of public health in developed countries, affecting about one billion people at Mundial. The Hypertension is an asymptomatic disease and easy to detect, however, presents with severe and lethal complications if not treated early³. Hypertension, so silent, produces hemodynamic changes, macro-and micro vascular, in turn caused by malfunction of the endothelium and vascular wall remodeling of resistance arterioles, responsible for maintaining peripheral vascular tone. These changes, which precede in time the pressure elevation, produce specific organic lesions, some clinically defined. In 90% of cases the cause is unknown which has been called "essential hypertension", with a strong hereditary influence. This very high percentage cannot be an excuse to try to find the etiology for 5 to 10% of cases there is a cause directly responsible for the elevation of arterial tension. This form of hypertension is called "secondary hypertension" that not only can sometimes be treated and disappear forever without requiring chronic treatment but can also be alert to locate even more serious diseases for which only a clinical . Hypertension is a cardiovascular risk factor that has not always been taken into account. In addition it may be a

factor in that there is a high risk pregnancy⁴. So the current study was conducted in order to know the knowledge of hypertension in residential population of UHC, Khaja Bandanawaz Institute of Medical Sciences, Kalaburagi.

METHODOLOGY

The present cross sectional study was carried out at Urban Health Centre during the period of January to April 2017. After an informed consent a pretested questionnaire was given. Health education was given after pretest and then post test assessment was carried out in different aspects of hypertension like general information, causes, symptomatology, complications and prevention etc. The data thus collected was entered in MS excel sheet. Data analysis was carried out by using SPSS 23.0 version. Quantitative data was expressed in terms of mean and standard deviation. Qualitative data was expressed in terms of proportions. The knowledge was graded as satisfactory and unsatisfactory based on the total score. Less than 50% score was termed as unsatisfactory and more than 50% of the score was termed as satisfactory. The mean pretest and post test score was compared by using paired t test. The association between pretest score and the demographic variables was calculated with chi square test. A p value <0.05 was considered as significant whereas p<0.001 was considered as highly significant.

RESULTS

Table1: Association between pretest knowledge regarding cause of hypertension with Sociodemographic variables

	Unsatisfactory (n=22)		Satisfactory(n=117)		Chi square	p
	No.	%	No.	%		
Age group					8.86	0.03
31-40	9	40.9	17	14.5		
41-50	7	31.8	50	42.7		
51-60	5	22.7	35	29.9		
> 61	1	4.5	15	12.8		
			Sex		2.03	0.15
Male	16	72.7	66	56.4		
Female	6	27.3	51	43.6		
			Educational status		19.24	0.0001
Illiterate	15	68.2	27	23.1		
Upto 10th std	0	0	14	12		
UG	3	13.6	49	41.9		
PG	4	18.2	27	23.1		
Heavy	1	4.5	25	21.4		
			Family history of HTN		7.52	0.006
Yes	15	68.2	43	36.8		
No	7	31.8	74	63.2		

40.9% of subjects from 31-40 years age group had unsatisfactory knowledge compared to 14.5% of satisfactory knowledge from same age group. 23.1% illiterates had satisfactory knowledge. Pretest knowledge of subjects regarding causes of hypertension and its association with sex was found to be non significant (P>0.05) whereas its association with age, educational status, and family history of hypertension was found to be statistically significant (p< 0.05, 0.001).

Table 2: Association between pretest knowledge regarding symptomatology of hypertension with Sociodemographic variables

	Unsatisfactory (n=22)		Satisfactory(n=117)		Chi square	p
	No.	%	No.	%		
Age group					0.81	0.84
31-40	5	22.7	21	17.9		
41-50	10	45.5	47	40.2		
51-60	5	22.7	35	29.9		
> 61	2	9.1	14	12		
			Sex		0.91	0.34
Male	15	68.2	67	57.3		
Female	7	31.8	50	42.7		
			Educational status		8.17	0.04
Illiterate	12	54.5	30	25.6		
Upto 10th std	1	4.5	13	11.1		
UG	7	31.8	45	38.5		
PG	2	9.1	29	24.8		
			Family history of HTN		3.24	0.07
Yes	13	59.1	45	38.5		
No	9	40.9	72	61.5		

40.2% of subjects from 41-50 years age group had satisfactory knowledge followed by 29.9% from 51-60 years. Only 28.4% who studied upto PG had satisfactory knowledge. Pretest knowledge of subjects regarding signs and symptoms of hypertension and its association with educational status and family history of hypertension was found to be associated significantly (<0.05).

Table 3: Association between pretest knowledge regarding complications of hypertension with Sociodemographic variables

	Unsatisfactory (n=22)		Satisfactory(n=117)		p
	No.	%	No.	%	
Age group					0.068
31-40	0	0	26	20.6	
41-50	9	69.2	48	38.1	
51-60	4	30.8	36	28.6	
> 61	0	0	16	12.7	
			Sex		0.43
Male	9	69.2	73	57.9	
Female	4	30.8	53	42.1	
			Educational status		0.36
Illiterate	4	30.8	38	30.2	
Upto 10th std	3	23.1	11	8.7	
UG	3	23.1	49	38.9	
PG	3	23.1	28	22.2	
			Family history of HTN		0.35
Yes	7	53.8	51	40.5	
No	6	46.2	75	59.5	

Pretest knowledge of subjects regarding complications of hypertension and its association with age was significant. Association with educational status and family history of hypertension was found to be non significant (P>0.05)

Table 4: Comparison between pre test and post test knowledge score with respect to different aspects of hypertension

Variables	Test	Mean	SD	t	p	Inference
Causes of HTN	Pretest score	8.92	1.18	5.48	0.0001 (<0.001)	Highly significant
	Post test score	7.91	1.71			
Symptoms of HTN	Pretest score	1.84	0.37	-0.63	0.529 (>0.05)	Not significant
	Post test score	1.87	0.4			
Complications of HTN	Pretest score	1.89	0.35	2.22	0.028 (<0.05)	significant
	Post test score	1.78	0.45			

Knowledge about causes of hypertension revealed that mean pretest score was 8.92 ± 1.18 and mean post test score was 7.91 ± 1.71. The difference was found to be significant. Knowledge about symptomatology of hypertension revealed that mean pretest score was 1.84 ± 0.37 and mean post test score was 1.87 ± 0.40. Knowledge about complications of

hypertension revealed that mean pretest score was 1.89 ± 0.35 and mean post test score was 1.78 ± 0.45 . The difference in the mean pre test and post test score of knowledge regarding causes of hypertension was found to be highly significant (<0.001). Mean pre test and post test score of knowledge regarding complications of hypertension was found to be significant (<0.05). Mean pre test and post test score of knowledge regarding symptomatology of hypertension was found to be not significant (> 0.05).

DISCUSSION

Demographic characteristics of study subjects: Out of total 139 subjects, 59% were males and 41% were females. Majority i.e. 41% were from 41 to 50 years age group. 53.2% were married. Majority of subjects (70%) were literate. Out of total, 58(41.7%) subjects told positive family history of hypertension.

Pretest knowledge regarding cause of hypertension: Knowledge about cause of hypertension was observed to be satisfactory amongst 117 subjects i.e.84.2%. Majority of them (56.4%) were males, 50.4% married and 53% from urban area. Majority were undergraduates (41.9) and 43.6% were having sedentary lifestyle. Family history of hypertension was observed in 36.8% subjects. Parmar P⁵ *et al* observed about 82% people were aware about causes of hypertension. Otgontuya *et al*⁶ 82.4% of the participants knew that salt and 80.4% knew that obesity were associated with hypertension. Aubert *et al*⁷ who reported >96% knew role of salt and obesity in hypertension. Our findings are comparable with the studies conducted by Parmar P⁵ *et al*, Otgontuya *et al*⁶ and Aubert *et al*⁷ Pretest knowledge regarding symptomatology of hypertension: Knowledge about signs and symptoms of hypertension was observed to be satisfactory amongst 117 subjects i.e.84.2%. Majority of them (57.3%) were males, 51.3% married and 53.8% from urban area. Majority were undergraduates (38.5%) and 44.4% were having sedentary lifestyle. Family history of hypertension was observed in 38.5% subjects Parmar P⁵ *et al* observed about 42% people were aware about symptoms of hypertension.

Pretest knowledge regarding complications of hypertension: Knowledge about complications of hypertension was observed to be satisfactory amongst 126 subjects i.e.90.6%. Majority of them (57.9%) were males, 52.4% married and 54.8% from urban area. Majority were undergraduates (38.9) and 46% were having sedentary lifestyle. Family history of hypertension was observed in 40.5% subjects Parmar P⁵ *et al* observed in his study at Gandhinagar that almost 68% subjects were aware about complications of hypertension.

Impact of structured teaching programme: Our study revealed that there is significant impact on knowledge regarding general information of hypertension, causes,

prevention (<0.001) and complications of hypertension (<0.05). There is significant effect of awareness programme with structured proforma in order to raise the knowledge of subjects as shown by our study and by Asfaq T *et al*⁹.

CONCLUSION

Thus, structured teaching program using various audiovisual aids is an effective tool for raising the knowledge regarding hypertension amongst general population.

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