

Original Research Article

Study of Knowledge, Attitude and Practice of General Population of Ambala towards Hypertension

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ABSTRACT

Assessment of knowledge, attitudes, and practices (KAP) is a crucial element of hypertension control, but little information is available from developing countries where hypertension has lately been recognized as a major health problem. Therefore we examined KAP on hypertension in a random sample of 500 adults aged above 20 years from Ambala, Haryana. A suitably designed and validated KAP questionnaire was administered and responses were coded and analysed. Most of the respondents (42.4 %) were aged 31-40 years and 98% of the participants knew that hypertension is the disease state. We observed poor score in attitude and practice part of the questionnaire. It concludes that the responders had good knowledge but poor attitude and practice towards hypertension. Repeated reinforcement and motivation along with health education will definitely bring about a positive change in attitude and practices.

Key words: Knowledge Attitude Practice Hypertension Ambala.

INTRODUCTION

Non Communicable Diseases (NCDs) are now the leading causes of death in India and worldwide. Representing a growing threat to national and global health as well as social and economic development, these diseases are increasingly recognised by governments, non-government organisations (NGOs) and the scientific community as a chronic global epidemic.

Their burden is expected to double by 2030. [1] Hypertension has become a significant problem in many developing countries experiencing epidemiological transition from communicable to non-communicable chronic diseases. [2-4] The emergence of Hypertension and other cardiovascular disease as a public health problem in these countries is strongly related to the aging of the populations, urbanization, and

socioeconomic changes favoring sedentary habits, obesity, alcohol consumption, and salt intake, among others. [5,6] In this context, hypertension presents a major area of intervention because it is a frequent condition and is amenable to control through both non pharmacological lifestyle factors and pharmacological treatment. Life style measures for lowering BP include reduced alcohol intake, reduced sodium chloride intake, increased physical activity and control of overweight. [7-11] Several models have been proposed to account for health behaviors and sustained behavioral changes. [12-18] A proper assessment and understanding of KAP factors is particularly helpful in the area of chronic conditions such as hypertension, for which prevention and control necessitate a lifelong adoption of healthy lifestyles. In this study, we examine KAP for hypertension and

associated risk factors in adults to help improve primary and secondary CVD prevention and control complications of the same.

MATERIALS AND METHODS

A suitably designed and validated KAP questionnaire was administered to General population of Ambala, Haryana. [19] Study population sample was selected by lottery method. The questionnaire was pretested and verified for errors. [20] The questionnaire covered three areas: knowledge, attitude and practice towards hypertension. There were a total of 19 questions, with 8 questions related to knowledge about hypertension, 5 questions to assess the attitude of the patient towards the disease, and 6 questions regarding practices. This questionnaire was filled in at a face-to-face interview with the investigator. In scoring method, 19 was the maximum possible score in which each correct answer was carry one point and incorrect or unsure answer was carry no point. The interviewer did not in any way try to improve the knowledge of respondents. Hindi or English version of questionnaire was provided as per requirement of individual.

Sample size is calculated by using the formula: $n = Z^2PQ/L^2$ which was came out to be 500

Where n = sample size

Z = level of confidence

p=prevalence

q=100-p

L=permissible error in estimate of "p"

Inclusion criteria

1. All persons above 18 years of age who are ready to participate in the study and given consent properly.

Exclusion criteria

1. Bed ridden elderly people.
2. Persons who are not agreed to participate in the study and given consent.

Sampling technique

Multistage sampling method was used to cover the required sample size.

Three primary health centers are located in rural area of Ambala viz RHTC Barara, PHC Mullana and PHC Nahoni which are under the administrative control of department of community medicine MMIMSR Mullana (Ambala). Each centre is covering a population of (48107 Barara, 49913 Mullana and 39229 Nahoni). Total villages covered by these centers are, Barara which include 23 villages, Mullana which include 31 villages and Nahoni which include 30 villages. One centre was selected by lottery method. Villages of the selected centre were listed and six villages were selected randomly. The list of people of these villages were prepared by head count method and fifty who were available at the time of visit and given consent to participate were included in the study to complete the sample size.

RESULTS AND DISCUSSION

Most of the respondents (42.4%) were aged 31-40 years, followed by those aged 20-30 years. Most of them (55.8%) were educated up to graduate level as per [Table-1](#). The major source of knowledge for the general population was television (32%) and newspaper (30%) followed by family physician (28%). However 10 % received information from friends and relatives. Majority were aware about the causes, symptoms and complications of the disease as per [Table-2](#). We observed poor score in attitude part of the questionnaire and only 45.2% had positive attitude towards exercise as per [Table-3](#). Only 20.6% of responders had their blood pressure checked. Only 17% of responders were able to answer 50% of practice questions correctly as per [Table-4](#). Hypertension remains a major health problem, causing high mortality and morbidity all over the world. It is considered a major risk factor to both cerebrovascular accidents and coronary artery disease. In the year 2001, high blood pressure accounted for 54% of stroke, 47% of ischemic heart disease, 75% of hypertensive disease, and 25% of other cardiovascular disease worldwide. The negative impact of

hypertension on health status is clear, especially taking into account the disability, decreased quality of life and mortality associated with stroke and cardiovascular disease. In 2001, 7.6 million deaths and 92 million disability life years were attributable to systolic blood pressure greater than 115 mm/Hg. [21] The WHO estimated condition accounted for 4.5% of the global disease burden and attributed the increase in hypertension to increasing contributing factors and co-existing cardiovascular risk factors such as obesity, poor diet, lack of physical activity and smoking. Given the large scale and modifiable nature of the problem, it certainly merits the attention of the health care community. [22]

Table 1: Demographic details of the study population

Variables		%
Gender	Male	57.80
	Female	42.20
	Total	100
Marital status	Married	97.4
	Unmarried	2.6
	Total	100
Educational status	Illiterate	28.00
	Primary school	9.0
	Secondary school	55.80
	Graduate	7.20
Total		100
Age (years)	<20	-
	21-30	33.6
	31-40	42.4
	41 or above	24.0
Smoking (Cigarettes/day)	Non smokers	65.6
	Smokers	34.4

Table 2: Response to knowledge questions

Sr No	Questions	%
1	When was your blood presser checked last?	20.6
2	When was your last visit with your physician?	43
3	When was your urine examination done?	10
4	When did you have your last lipids checked?	6.2
5	When was your blood sugar level checked last?	16.8
6	When did you have gone for exercise last?	19.6

Table 3: Response to attitude questions

Sr No	Questions	%
1	Do you know hypertension is a disease?	98.1
2	What are the complications of hypertension?	61
3	What is the normal level of blood pressure?	24
4	Is the diet rich in salt causes hypertension?	82.4
5	Is the smoking major cause of hypertension?	81.2
6	What are the symptoms of hypertension?	40.2
7	Is obesity associated with hypertension?	80.4
8	Is exercise having beneficial role in hypertension?	63.6

Table 4: Response to practice questions correctly answering %

Sr No.	Questions	%
1	Should we reduce salt intake to prevent hypertension?	40
2	Do you think regular checking of your blood pressure level is important?	36.2
3	Should we keep in touch with physician regularly?	28.4
4	Do you think regular medication is important in hypertension?	72
5	Should we exercise regularly for healthy life?	45.2

The serious spread of disease can cripple the nation's fiscal and human resources; therefore, it is the time to act now and do as much as possible to cover almost all aspects of the disease. Proper education and awareness programmes developed according to the need of the society can improve the knowledge of general population and change their attitude. [23]

Obtaining information about the level of awareness is the first step in formulating a preventive programme for the disease.

There is need to investigate KAP among general population to aid in future development of programmes and techniques for effective health education. K A P surveys are effective in providing baseline for evaluating intervention programmes in providing. [24] This study aims to assess the baseline levels of knowledge, attitude and practices of general population of Haryana towards hypertension.

A high proportion of participants showed good basic knowledge on hypertension. For example majority of participants (98%) recognized high blood pressure to be threat to health which is comparable to the Dugee Otgontuya et al. [25] 82.4% of the participants knew that salt and 80.4% knew ST otoiety were associated with hypertension. Most of the participants (81.2%) reported that smoking causes high BP. The benefit of physical exercise on W was also well recognized by 63.6% o @ participants. All these findings comparable with the study done by Auoen et al. [26] who reported >96% knew roe salt and obesity in hypertension. In contrast to basic knowledge specific knowledge on hypertension was less, example, 40.2% of all participants knew to hypertension only rarely causes

symptoms whereas 24% of the participants knew normal blood pressure level. This lack of knowledge was associated with male gender younger age, lower level of education and unemployment. Again similar associations were observed in the study by Kusuma Y et al [27] The lack of proper knowledge to each responder should be given individual attention for good practice and fill the gap this 10% to 100% as studies report that too is a positive correlation between knowledge and good attitude. [28]

Attitude of our population was very poor towards hypertension. Here we observed that 45.2% of the participants agreed with that habit of exercise are associated with healthy life. Many studies have confirmed the beneficial role of physical activity in improving blood pressure control.

The attitude of our population for regular medication was good that 72% participants having positive attitude which was comparable with the study by Dugee Otgontuya et al [25] Many study showed participants perceived medication and exercise as the only intervention moderately effective at preventing high blood pressure.

Poor attitude of our population for less salt intake, regular visit to physician and regular measuring of blood pressure may be due to lack of awareness regarding this important issues.

Regarding response to practice questions showed that very few of the general population had positive practice overall. Only 20.6% participants checked their own blood pressure in last one year. Poor practice regarding regular blood and urine examination as well as of exercise may be due to lack of importance and awareness for need of it. Demographic transition combined with urbanisation and industrialisation has resulted in drastic changes in lifestyles globally, [29] which require great efforts by health teams to enhance education and improve the attitude and practice towards hypertension in our society. We found reasonable gap between

knowledge, attitudes and practices, so to overcome that it is very important to formulate and implement certain strategies by which positive attitudes can be converted into beneficial practices.

CONCLUSION

In the study it was found that attitude of our population towards hypertension is poor. Here we observed 45.2% of the participants agreed that physical exercise is responsible for healthy life but a high proportion of the participants show good knowledge on hypertension. In contrast to basic knowledge, specific knowledge on Hypertension was less for example 40.2 % of all participants knew that hypertension rarely causes symptoms. A program should start in the community at Govt. level which creates the awareness among the masses about the knowledge practice and attitude towards the hypertensive heart disease and doctors should screen the hypertensive patients in the OPD.

REFERENCES

1. World Health Organization Status Report on *non communicable Diseases 2010*. Geneva: World Health Organization; 2011.
2. Dodu SRA. Emergence of cardiovascular diseases in developing countries. *Cardiology*, 1988; 75: 56-64.
3. Nissinen A., Bothig S, Granroth H, Lopez AD. Hypertension in developing countries. *World Health Stat Q*. 1988; 41: 141-154.
4. World Health Organization. Cardiovascular diseases in developing countries. *World Health Stat Q*. 1993; 46: 90-150.
5. Omran AR. The epidemiological transition: A theory of the epidemiology of population change. *Milbank Mem Fund Q*. 1971; 4: 509-538.
6. Akinkugbe OO. World epidemiology of hypertension in blacks. *J Clin Hypertens*. 1987; 3: IS-8S.
7. Cutler JA. Combinations of lifestyle modification and drug treatment in management of mild-moderate hypertension: A review of randomised clinical trials. *Clinexp Hypertens*. 1993; 15: 1193-1204
8. Puddey IB, Parker M, Beilin LJ, Vandongen R, Masarei JR. Effects; of alcohol and caloric restriction on blood pressure and

- serum lipids in over weight man. Hypertension. 1992; 20: 533-541.
9. Law MR Frost CD, Wald NJ by how much does dietary salt reduction lower blood pressure 111: analysis of data from trials of salt reduction. BMJ.1991; 302: 819-824.
 10. ArrollB, Beaglehole R Dose physical activity lower blood pressure? A critical review of clinical trials. J Clin Epidemiol 1992; 45: 439-447.
 11. Stevens VJ, Corrigan SA, Obarzanek E, Bemauer E, Cook NR, Hebert P, et al. Weight loss intervention in phase 1 of Trials of Hypertension Prevention. TOHP Collaborative Research Group. Arch Intern Med. 1993; 153: 849-858.
 12. Becker MH. The Health Belief Model and Personal Health Behavior. Thorofare, NJ: Slack; 1974.
 13. Janz NK, Becker MH. The Health Belief Model: a decade later. Health Educ Q. 1984; 11: 1-47.
 14. Bandura A. Social Learning Theory. Englewood Cliffs, NJ: Prentice-Hall; 1977.
 15. Rosenstock IM, Strecher VJ, Becker MH. Social learning theory and the health belief model. Health Educ Q. 1988; 15: 175-183.
 16. Farquhar JW, Maccoby N, Wood PD. Education and communication studies. In: Holland WW, Detels R, Knox G, eds. Oxford Textbook of Public Health. Oxford, UK: Oxford University Press; 1985, 207-221.
 17. Prochaska JO, DiClemente CC, Norcross JC. In search of how people change: Application to addictive behaviours. Am Psychol. 1992; 47: 1102-1114.
 18. Prochaska J, DiClemente C. Towards a comprehensive model of change. In. Miller W, Heather N, eds. Treating Addictive Behaviors: Processes of Change. New York, NY: Plenum Press; 1986, 3-27.
 19. Rathod GB, Parmar P. Comparison regarding knowledge, attitude and practice of blood donation between health professionals and general population. Int J Cur Res Rev, 2012, 04 (21): 114-120.
 20. Parmar P, Rathod GB. Study knowledge, attitude and perception regarding medico-legal autopsy in general population. Int J Med Pharm. 2013; 03 (06): 1-6.
 21. Lawes C.M., S.V., Rodgers A. Global burden of blood pressure related disease, 2001, Lancet, 2008; 371(9623): 1513-15
 22. WHO, International Society hypertension writing group. WHO International Society of Hypertension statement on management of hypertension. Journal of hypertension, 2003; 21(11): 1983-1992.
 23. Shera AS, Jawad F, Basit A. Diabetes related knowledge, attitude and practices of family physicians in Pakistan, J Pak Med Assoc, Oct 2002; 52(10): 465-70.
 24. Ruzita T, Osman A, Fatimah A. et al., The effectiveness of group dietary counselling among non- insulin dependent diabetes mellitus (NIDDM) patients in resettlement scheme areas in Malaysia, Asia Pacific J Clin. Nutr, 1997; 2: 84-87.
 25. Dugee Otgontuya, Maximilian de Courten, Ib C Bygbjerg, Palam Enkhtuya, Dan W Meyrowitsch, Janchiv Oyunbileg, Alessandro R Demaio. Hypertension and hypertension-related disease in mongolia; findings of a national knowledge, attitudes and practices study. BMC Public Health, 2013; 13(1): 194.
 26. Line Aubert, Pascal Bovet, Jean-Pierre Gervasoni, Anne Rwebogora, Bernard Waeber, Fred Paccaud. Knowledge, Attitudes, and Practices on Hypertension in a Country in Epidemiological Transition. Hypertension. 1998; 31: 1136-1145.
 27. Kusuma YS, Gupta SK, Pandav CS. Knowledge and perceptions about hypertension among neo- and settled -migrants in Delhi, India. CVD Prev Control 2009, 4(2):119-129.
 28. Ambigapathy R, Ambigapathy S, Ling HM. A knowledge, attitude and practice (KAP) study of diabetes mellitus among patients attending Klinik Kesihatan Seri Manjung, NCD Malaysia, 2003; 2:6-16.
 29. Rathod GB, Rathod S, Parmar P Pankh A Study of knowledge, attitude an practice of general population Waghodia towards Diabetes mellitus. Int j Cur Res Rev, 2014; 6(1): 63-68.

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