

Original Article

Cardiovascular Diseases Risk Assessment of Healthcare Professionals

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Aim : This study aimed at assessing the Cardiovascular risk factors among Healthcare Professionals mainly in Bihar/Jharkhand states of India.

Method : The participants were asked to answer a questionnaire electronically pertaining to their demographic characteristics, personal and medical history.

Result : It was found that 33% of study subjects had Hypertension, 24% had Diabetes and 15% had a combination of both Hypertension and Diabetes. 30% of all diabetics had their HbA1c above optimal levels. 16% of Doctors were smokers and 17% had Dyslipidemia. 70% of Doctors were doing exercise for >150 minutes/week, however only 15% were sleeping for 7 hours or more.

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Key words : Cardiovascular Risk, Doctors, Healthcare Professional, Self Care.

Cardiovascular diseases are the leading cause of mortality in India contributing to almost 25% of all deaths^{1,2}. India has undergone a rapid epidemiological transition from predominantly infectious diseases to non-communicable diseases. Certain aspect of this CVD epidemic in India is of grave concern like early age of onset, rapid progression and a high case fatality rate.

Doctors involved in clinical care are one of the most important pillars of the Health Care System. They are expected to have a good knowledge on the disease and its outcome which should affect their attitude and practice. This could influence the prevalence of lifestyle diseases such as Hypertension and Diabetes among them. However, quite commonly they have a sedentary and stressful lifestyle and fail to maintain ideal healthy diet or exercise schedule. There is a paucity of data on the prevalence of lifestyle associated disorders among Doctors in India.

There is strong evidence to support that specific

Editor's Comment :

- Physicians should lead by example to combat the epidemic of obesity and cardiovascular diseases.

self care behaviour such as healthy diet, regular exercise and avoidance of tobacco and alcohol help in prevention and management of Cardiovascular Diseases³.

MATERIALS AND METHODS

The data was collected from Doctors of mostly Bihar and Jharkhand states of India by the means of a questionnaire which was answered by them electronically. Apart from the demographic details, data regarding personal, family and medical history was recorded. The data was compiled and analysed in Microsoft Excel. The statistical analysis was done using chi square calculator.

RESULTS

The total number of participants in the study were 213 (n) with 188 males (88%) and 25 females (12%) Table 1. The most common age group of participants was 60-69 years (26%). A total of 26 Doctors (12%) were from outside Bihar/ Jharkhand in this study. The average age of the participants in the study was 48 years. 68% of the study subjects were more than 40 years of age. The average weight of study subjects was 73.6 kg and average BMI was 27.

A large percentage of Doctors 69%, were either overweight or obese according to the WHO criteria. However according to the Modified criteria of BMI for

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Table 1 — Demographic variables

Age Range	Total No (n)	Percentage %		
20-29	16	8		
30-39	46	21		
40-49	50	23		
50-59	43	20		
60-69	53	25		
70-79	4	2		
80-89	1	1		
Sex	N	%		
Male	188	88		
Female	25	12		
BMI CATEGORIES (WHO Classification)	N	%		
UNDERWEIGHT <18.5	3	1.4		
HEALTHY WEIGHT 18.5-24.9	63	30		
OVERWEIGHT 25-29.9	103	48		
OBESE >30	44	20.6		
Combined Overweight & Obese	147	69		
BMI Modified Criteria for Asian Indians	N	%		
OVERWEIGHT (23-24.9)	42	18		
OBESE (>25)	144	68		
Combined Overweight & Obese	186	86		
Age group	Total (n)	BMI >23 (%)	Doing Exercise(%)	Smoking(%)
<40	65	54 (84)	35 (54)	9 (14)
40-60	86	78 (89)	66 (76)	14 (16)
>60	59	56 (91)	47 (77)	20 (16)

Asian Indians even a greater number of Doctors 86%, were either overweight or obese. The percent of people doing exercise increased with age, however BMI also increased with age.

The percentage of hypertensive individuals was 33% and 24% were diabetics. 30% of diabetics had poor control of blood sugar levels. Dyslipidemia was reported by 17% of doctors. 15% of the study subjects were smokers.

70% of Doctors did Exercise or Yoga for at least 150 minutes in a week. Most of the Doctors (83%) in the study took heart healthy diet (i.e. plenty of nutrient-rich foods—fruits and vegetables and avoiding saturated fats, trans fats, and excess sodium and sugar). Table 2.

DISCUSSION

The study was conducted among 213 doctors, mostly from Bihar and Jharkhand states of India. 30% of the Doctors were at high risk due to physical inactivity or sedentary lifestyle. This is similar to other studies done on Health Professionals in India by Hegde, *et al*⁴ (30%) and Gopal, *et al*⁵ (25%). In the present study, 17% were at high risk based on their dietary assessment which is similar to the study by Hegde, *et al*⁴ (14.4%). 24% of the Doctors in this study had Diabetes which is significantly less as compared

Table 2 — Self reported Cardiovascular risk factors

	Total (n)	%
Hypertension	71	33
Diabetes	51	24
Hypertension & Diabetes	32	15
HBA1C >7	15	7
Smoker	34	16
Smoker with Hypertension	15	7
Dislipidemia	37	17
Hypertension+Diabetes+Dyslipidemia	13	6
History of CAD	16	7.5
Family history of CAD	65	30.5
Exercise/ Yoga < 150mins /week	64	30
Sleep < 7hrs/ day	180	85
Not taking "Heart healthy Diet"	37	17

to other study by A.Ramachandran, *et al*⁶.

Notably 69% of Doctors had high BMI and were either in overweight or obese category. But according to the modified criteria of BMI for Asian Indians 86% were above the normal weight recommendation^{7,8}. Only 30% of the Doctors had healthy weight, in spite of the fact that 70% were physically active and 83% were taking heart healthy diet. This could be due to either insufficient exercise or unhealthy dietary habits. According to the 2007 Physician Health Study 63% of the physicians were above the normal weight range⁹. Studies have shown that Physicians BMI may be related to the effectiveness of counselling patients regarding obesity. The patients are more ready to accept advice regarding Diet and Exercise from normal weight doctors¹⁰.

The American Heart Association has outlined seven basic self care activities that are most important in the prevention of CVD and stroke called "Life's simple, 7". They include cessation of smoking, maintenance of a healthy BMI, Healthy diet, Physical activity, maintaining normal Blood pressure, cholesterol and Plasma Glucose levels³. The present study incorporated the above 7 goals for assessment of risk for CVD. Similarly the "Know your numbers" campaign by American Heart Association was intended to encourage people to raise awareness regarding their risk for CVD^{11,12}.

The seeds of Cardiovascular Disease and other non communicable diseases are planted very early in life. A shift in focus from care of acute events to prevention by means of awareness and self care is the need of the hour.

The doctors are involved in taking care and educating people regarding CVD. However, more often than not they forget to practice what they preach and neglect their self care.

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