ABSTRACT: BACKGROUND: Preventive health care practices including regular Preventive Health assessments is one of the best methods to monitor Health and prevent non-communicable diseases apart from lifestyle modifications. Preventive health measures are always cost effective and adoption of such practices among medical professionals is a great stimulus to the general public. This study was aimed to determine the preventive health checks among the doctors' community. METHODS: A cross sectional study was conducted among 234 doctors. A pre-tested, semi-structured questionnaire was used to collect the data. The data was analyzed using MS Excel software and was represented in the form of percentages and proportions. RESULTS: The study population constituted 234 doctors of which 56% were males and 44% were females. 34.6% of the study population were below 45 years of age and 65.4% were 45 years and above. 35.9% of the study population was found to have normal BMI (< 24.99). 32% of the study population was found to have co-morbid conditions. In the present study population 95 (40.6%) doctors were undergoing regular annual preventive health examinations out of which 31 (38.3%) were below 45 years of age and 64 (41.8%) were 45 years and above. Males and female undergoing preventive health checks were 63 (48%) and 32 (31%) respectively. 37 (49.3%) of doctors with co-morbidities and 58 (36.4%) of them without co-morbid conditions were undergoing regular health checks. CONCLUSION: The practice of preventive health checks among Doctors is significantly less than what we expect. Preventive health measures are always cost effective and adoption of such practices among medical professionals is a great stimulus to the general public.

KEYWORDS: Age, Body mass Index, Co-morbidities, Doctors, Preventive health check, Sex.

INTRODUCTION: India is currently facing a growing burden of Non-Communicable Diseases (NCDs) as a result of rapid industrialization, socio-economic progress, increased life expectancy and changing lifestyles.1 NCDs account for 60% of all deaths worldwide, with 80% of these occurring in developing countries like India. Trends also suggest that the major risk factors for NCDs –Hypertension, Obesity, Physical inactivity, high glucose levels are on the rise in developing countries.2 With rising health care costs the long term financial implications on treatment of NCDs as well as the negative effects on the productivity of an individual impose a huge economic burden on the individual, family and the society.

Preventive health care practices including regular Preventive Health assessments is one of the best methods to monitor Health and prevent NCDs apart from lifestyle modifications of Physical exercise regimens, low salt diet, cessation of smoking and alcohol consumption. Preventive health measures are always cost effective and adoption of such practices among medical professionals is a great stimulus to the general public.3 Society in general expects that the health care providers especially Doctors are the key promoters of health and they play a vital role in the prevention of
Diseases. Several studies have also reported that doctors’ own lifestyles may influence the lifestyle counseling that they offer to patients.\textsuperscript{4,5,6} Hence this study is conducted to know the practice of regular health assessments among the medical faculty of a major teaching hospital.

**MATERIALS AND METHODS:** This is a cross sectional descriptive study involving the population of doctors from all faculties in Andhra Medical College and King George Hospital, Visakhapatnam which is the largest teaching hospital in the state of Andhra Pradesh and a major tertiary care referral center. The data was collected in the month of January 2015. A pre-tested semi-structured questionnaire was administered to all doctors after taking informed consent. Out of 251 responders 17 were excluded because the questionnaire was incomplete. The remaining 234 responders were analyzed and included in the study. The questionnaire consisted of variables like age, sex, BMI and co-morbidities. The data was analyzed by preparing Master table in MS Excel and represented in the form of tables and proportions.

**RESULTS:** The study population constituted 234 doctors of which 56% were males and 44% were females. 34.6\% of the study population were below 45 years of age and 65.4\% were 45 years and above. 83\% of the participating doctors were from clinical specialities and 17\% from preclinical and paraclinical specialities. 35.9\% of the study population was found to have normal BMI (< 24.99) of which 33\% were females and 38\% were males. 32\% of the study population was found to have co-morbid conditions of which males constituted 41\% and females 20\% and this was statistically significant (SEP=3.62, P <0.05) (Table 1).

| Characteristic | Female N=103 | Male N=131 | Total N=234 |
|----------------|--------------|------------|-------------|
| Age            |              |            |             |
| < 45 years     | 41 (50.6\%)  | 40 (49.4\%)| 81 (34.4\%) |
| ≥ 45 years     | 62 (40.5\%)  | 91 (59.5\%)| 153 (65.6\%)|
| Speciality     |              |            |             |
| Pre-Clinical   | 18 (17.5\%)  | 5 (3.8\%)  | 23 (9.8\%)  |
| Para-Clinical  | 15 (14.5\%)  | 2 (1.5\%)  | 17 (7.3\%)  |
| Clinical       | 70 (68.0\%)  | 124 (94.7\%)| 194 (82.9\%)|
| BMI            |              |            |             |
| 20-24.99       | 34 (33\%)    | 50 (38.2\%)| 84 (35.9\%) |
| 25 & Above     | 69 (67\%)    | 81 (61.8\%)| 150 (64.1\%)|
| Co-Morbidities |              |            |             |
| No             | 82 (79.6\%)  | 77 (58.2\%)| 159 (67.1\%)|
| Yes            | 21 (20.4\%)  | 54 (41.8\%)| 75 (32.9\%) |

In the present study population 95 (40.6\%) doctors were undergoing regular annual preventive health examinations. Among the doctors undergoing preventive health checks 31 (38.3\%) were below 45 years of age and 64 (41.8\%) were 45 years and above. Of the study population 32 (31\%) females and 63 (48\%) males undergo annual health checks and this was statistically not significant (SEP=1.65, P > 0.05). When comparing subjects with normal and abnormal BMI among this study population there was no significant difference in preventive health checks as evidenced by...
34 (40.4%) having BMI of less than 24.99 and 61 (40.6%) having BMI of more than 25. The percentage of doctors with co-morbidities who were undergoing regular health checks was 49.3% (n=37) as compared to 36.4% (n=58) without co-morbidities. This was statistically found to be not significant (SEP=1.2, P>0.05) (Table 2).

| Characteristic        | Yes N=95 | No N=139 | Total N=234 |
|-----------------------|----------|----------|-------------|
| Age                   |          |          |             |
| < 45 years            | 31 (38.3%) | 50 (61.7%) | 81 (100%) |
| ≥ 45 years            | 64 (41.8%) | 89 (58.2%) | 153 (100%) |
| Sex                   |          |          |             |
| Female                | 32 (31.0%) | 71 (69.0%) | 103 (100%) |
| Male                  | 63 (48.0%) | 68 (52.0%) | 131 (100%) |
| BMI                   |          |          |             |
| 20-24.99              | 34 (40.4%) | 50 (59.6%) | 84 (100%) |
| 25 & Above            | 61 (40.6%) | 89 (59.4%) | 150 (100%) |
| Co-Morbidities        |          |          |             |
| No                    | 58 (36.4%) | 101 (63.6%) | 159 (100%) |
| Yes                   | 37 (49.3%) | 38 (50.7%) | 75 (100%) |

DISCUSSION: It is a common belief among the Health professionals that Doctors tend to neglect their own health even though they are at the forefront in providing appropriate health care to their patients. There could be many reasons a few of which include inadequate time, complacency, fear of something unexpected turning up in the test results, and the belief that medical care is very near to access at all times. To the best of our knowledge there are very few studies which evaluated the practice of preventive health care checks or annual physical examinations among health care professionals especially doctors.

In the present study population 40.6% were undergoing regular health checks compared to a similar study done in another Medical college where it was 26%. It is a known fact that the incidence of non-communicable diseases like Hypertension, diabetes, Coronary artery disease, Dyslipidemia and malignancies increase with age. Hence it is to be expected that preventive health checks among the health professionals should increase with age, however in the study there was not a significant difference among doctors of less than and more than 45 years of age group.

With urbanization and the increased consumption of processed foods with simple sugars obesity is on the rise and it predisposes to metabolic syndrome. India has gained the dubious distinction of being called the Diabetes capital of the World. In the present study only 35.9% were found to have a normal Body Mass Index of less than 24.99 Kg /m. However there is no significant difference in percent of individuals undergoing preventive health checks in normal versus overweight study subjects.

It is also to be expected that in individuals with co-existing co-morbidities there is a greater need for annual health checks for regular assessment of their disease. But in this study population
there is no significant increase in regular health checks as compared to study group without any co-morbidities. This may be explained by the fact that most of them with co-morbid conditions like hypertension and diabetes have knowledge of management of their illness and tend to ignore that such diseases need to be monitored for prevention of long term complications.

CONCLUSION: The practice of preventive health checks among Doctors is significantly less than what we expect. Preventive health measures are always cost effective and adoption of such practices among medical professionals is a great stimulus to the general public.

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