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Do Doctors Walk The Talk? Exercise Habits of Doctors at a Major Teaching Hospital

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Abstract:
Introduction:*Non-communicable diseases will account for 73% of deaths and 60% of the global disease burden by 2020. Physical activity plays a major role in the prevention of these non-communicable diseases. Hence the present study was aimed to study the practice of physical activity and other associated factors influencing physical activity among doctors of King George Hospital-Andhra Medical College, Visakhapatnam.*
Methods:*Across-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.79.1% of the study population were in the age group of 35-54 years. 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. 76% of the doctors were engaging in some form of physical exercise. The habit of physical exercise was found to be more in males (84%) than females (66%). The most common physical exercise among the study subjects was walking / jogging (87%).The common reasons in this study population for not including a physical exercise regimen in their lifestyle were inadequate time (55.4%) and lack of motivation (33.9%).*
Key Words: *Age, BMI, Co-morbidities, Doctors,Evening practice, Physical exercise, Sex.*

I. Introduction

Physical activity is defined as any bodily movement, produced by skeletal muscles, that requires energy expenditure. Physical inactivity has been identified as the fourth leading risk factor for global mortality causing an estimated 3.2 million deaths globally [1]. Exercise has a positive impact on total morbidity and mortality, and can also prevent many chronic diseases such as cardiovascular disease, metabolic disease, chronic kidney disease, obesity, arthritis and depression[1].India is currently undergoing rapid economic and demographic transformations of which the key change has been in the nature of the Indian diet and lifestyle. There has been a rising prevalence of lifestyle related diseases such as Type2 Diabetes, Hypertension, Coronary Heart disease etc., frequently in association with overweight and obesity. Comparative data show that Asian Indians are more sedentary than white Caucasians [2].Several exercise guidelines recommend at least 150 minutes of moderate-intensity aerobic physical activity throughout the week. Muscle strengthening activities should be done involving major muscle groups on two or more days a week [1][2][3][4].

Doctors are well positioned to provide physical activity counseling to patients. They are a respected source of health related information and can provide preventive counseling. Exercise counseling by doctors' has been reported to improve patients' exercise habits [5].Several studies have also reported that doctors'own lifestyles may influence the lifestyle counseling that they offer to patients[6][7][8].These lines of evidence suggest that doctors exercise habits are important for both their own health and when counseling patients about exercise. Hence, the present study was conducted among doctors working in King George Hospital and Andhra Medical College, Visakhapatnam.

II. Material 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, co-morbidities and evening practice. They were enquired regarding their exercise habits, adequacy of their

present exercise regimen and patient counseling habits. Those doctors who were not exercising were requested to give reasons and also state what would encourage them to initiate exercise. The data was analyzed by preparing Master table in MS Excel and represented in the form of tables.

III. Results

The study population constituted 234 doctors of which 56% were males and 44% were females. 79.1% of the study population was in the age group of 35-54 years. 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. Majority of the doctors (79.5%) were attending evening clinics. Of these 92.4% were males and 63.1% were females. 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 (Table No:1).

Table 1
General Characteristics of the study population

Characteristic		Female N=103	Male N=131	Total (N=234)
Age				
	25-34	5 (4.9%)	4 (3.0%)	9 (3.8%)
	35-44	36 (34.9%)	36 (27.5%)	72 (30.8%)
	45-54	52 (50.5%)	61 (46.5%)	113 (48.3%)
	54 & Above	10 (9.7%)	30 (22.9%)	40 (17.1%)
Practice				
	No	38 (36.9%)	10 (7.6%)	48 (20.5%)
	Yes	65 (63.1%)	121 (92.4%)	186 (79.5%)
Speciality				
	Pre-Clinical	18 (17.5%)	5 (3.8%)	23 (9.8%)
	Para Clinical	15 (4.5%)	2 (1.5%)	17 (7.3%)
	Clinical	70 (68.0%)	124 (94.7%)	194 (82.9%)
BMI				
	20-24.99	34 (33.0%)	50 (38.2%)	84 (35.9%)
	25 & Above	69 (67%)	81 (61.8%)	150 (64.1%)
Co-Morbidities				
	No	82 (79.6%)	77 (58.8%)	159 (68.0%)
	Yes	21 (20.4%)	54 (41.2%)	75 (32.0%)
				SEP = 3.62
				P < 0.05

Among the study population 76% of the doctors were engaging in some form of physical exercise. The habit of physical exercise was found to be more in males (84%) than females (66%) and was statistically significant (Table No:2).

Table 2
Exercise Vs Sex

Characteristic		Female N=103	Male N=131	Total N=234
Physical Exercise				
	No	35 (34%)	21 (16%)	56 (24%)
	Yes	68 (66%)	110 (84%)	178 (76%)
				SEP =3.18
				P <0.05

Half of the study population (50.6%) was exercising for more than 5 years duration. Out of 178 study subjects who were doing physical exercise only 62% were engaging in exercise for 5 or more than 5 days a week. The pattern of regular exercise was found to be higher in males (69%) than females (51.5%) and was not statistically significant. The most common type of physical exercise among the study subjects was walking / jogging (87%). In those who were physically exercising 72% were engaged for more than 30 minutes a day and is almost the same among males and females. Nearly 60% of the exercising doctors have invested money either

in buying equipment for exercising at home or for a gym membership.The reason for doing physical exercise among the study population was for health and to look good (54%). Only 54.5% of the total exercising doctors responded that they were not doing exercise adequately (Table No: 3).

Table 3
Pattern of exercise in the study population

Characteristic		Female N=68	Male N=110	Total N=178
Duration of Exercise				
	1 - 5 Years	34 (50%)	54 (49.1%)	88 (49.4%)
	> 5 Years	34 (50%)	56 (50.9%)	90 (50.6%)
Frequency of Exercise				
	< 5 Days / Week	33 (48.5%)	34 (33.9%)	67 (37.6%)
	≥ 5 Days / Week	35 (51.5%)	76 (69%)	111 (62.4%)
				SEP = 1.7
				P > 0.05
Type of Exercise				
	Walk / Jog	57 (83.8%)	98 (89.1%)	155 (87.1%)
	Yoga	8 (11.8%)	1 (0.9%)	9 (5.0%)
	Swim	0	1 (0.9%)	1 (0.6%)
	Others	3 (4.4%)	10 (9.1%)	13 (7.3%)
Time per Day				
	Less than 30 mins	23 (33.8%)	27 (24.6%)	50 (28.1%)
	More than 30 mins	45 (66.2%)	83 (75.4%)	128 (71.9%)
Investing on Exercise				
	No	32 (47.0%)	40 (36.4%)	72 (40.4%)
	Yes	36 (53%)	70 (63.6%)	106 (59.6%)
Why do you Exercise				
	To be healthy	32 (47%)	47 (42.7%)	79 (44.4%)
	To look good	01 (1.5%)	02 (1.8%)	3 (1.7%)
	Both	35 (51.5%)	61 (55.5%)	96 (53.9%)
Exercise Adequacy				
	Not adequate	41 (60.3%)	56 (50.9%)	97 (54.5%)
	Adequate	27 (39.7%)	54 (49.1%)	81 (45.5%)

In the present study there was no significant difference of BMI between exercisers and non-exercisers. The presence of co-morbidities was found to be high among exercisers (84%). The habit of doing physical exercise was found to be more after 35yrs of age (>70%) than below 35yrs of age (44.5%). Even though the habit of doing physical exercise was high among the practitioners having evening clinics it was not statistically significant when compared to non-practitioners (Table no: 4).

Table 4
Exercisers Vs Non-exercisers Characteristics

Characteristic		Non-Exercisers N=56	Exercisers N=178	Total N=234
Body Mass Index				
	20 - 24.99	20 (35.7%)	64 (36%)	84 (35.9%)
	25 and above	36 (64.3%)	114 (64%)	150 (64.1%)
Co-Morbidities				
	Yes	12 (16%)	63 (84%)	75 (100%)
	No	44 (27.7%)	115 (72.3%)	159 (100%)
Age				
	25-34 Years	05 (55.5%)	04 (44.5%)	9 (100%)
	35-44 Years	16 (22.2%)	56 (71.8%)	72 (100%)
	45-54 Years	24 (21.2%)	89 (72.8%)	113 (100%)
	55 and above	11 (27.5%)	29 (72.5%)	40 (100%)
Evening Practice				
	Yes	40 (21.5%)	146 (78.5%)	186 (100%)
	No	16 (33.3%)	32 (66.7%)	48 (100%)
				P > 0.05

IV. Discussion

The purpose of this study was to assess the exercise habits and the perceived deterrents to physical exercise for maintaining a healthy lifestyle in a population of doctors working in a major teaching institute/hospital. Very few studies are available in Medical literature which studied the exercise habits of healthcare providers.In this study 62% of the doctors exercised enough to result in health benefits as per the guidelines recommended by the American college of sports medicine. In a survey of 200 Vancouver primary care physicians in 1992 only 39.1% actually met the ACSM guidelines for adequate amounts of exercise [9]. Another survey of Harvard medical school faculty in 1982 reported that less than half the faculty were exercising 1 hour weekly[10]. These contrasting results may point to healthier lifestyles being adapted by health care providers due to increased knowledge of physical exercise benefits on the overall health over the last two decades since the comparing studies were done.The presence of co-morbidities was found to be high among the doctors who were doing physical exercise than those who were not doing exercise (84% vs 64.6%). This may be due to initiation of physical exercise after the onset of a co-morbidity. The habit of regular physical exercise was also found to be more after 35 years of age (>70%) than below 35 years. This may be explained by doctors in the older age group taking better care of their own health and being able to make time available for exercise than younger doctors. This finding is also consistent with a survey conducted on 896 medical doctors in Japan where the increasing age group was positively associated with exercise habits [11].

The reasons given by subjects in this study population for not including a physical exercise regimen in their lifestyle were inadequate time (55.4%), lack of motivation (33.9%) and the presence of a significant health problem (10.7%). These doctors also responded that they will be encouraged to consider physical exercise if they have time from family commitments/evening clinics (48.2%), if they are provided facilities for physical exercise at the workplace (26.8%), if they have a partner or company (10.7%) and if they are pain free (14.3%). To counter the perception that inadequate time is a deterrent to physical exercise ideas like creating a gym or walking path in or around the hospital to make exercise more accessible should be considered. Such a facility at workplace can be utilized by the doctors to exercise before work, after work or during a break.

In this study 48.7% of the doctors responded that they enquire about their patients exercise history all of the time, 41% some of the time, 11% seldom and 8% never asked about the patients exercise habits. This is consistent with the findings of a survey done on 200 Vancouver primary care physicians where 92.9% responded that they asked their patients exercise history all or some of the time[9].

It should be noted that there are a few limitations to this study. First, the results of this study were from a self-administered questionnaire, and therefore do not reflect an objective assessment of actual exercise habits. Second, the doctors in this study may not be representative of the entire population of doctors because all are working in the same institution. Further studies will be needed to investigate the actual exercise habits of doctors using objective methods such as exercise recording devices.

V. Conclusion

Most of the Doctors in this study population are aware of the beneficial effects of physical exercise on their overall health. The demanding and busy life of a doctor should not be perceived as a deterrent to Physical exercise. Doctors should be at the forefront in promoting physical exercise among their patients and also the society at large.

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