Original Article

Prioritizing Physician Well-being : A Survey of Modern Medicine Doctors

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Abstract

Background : The health and well being of doctors are paramount not only for their own sake but also for the welfare of their patients and the effectiveness of healthcare system. Lifestyle-related diseases are increasing Globally, affecting Clinicians as well. This study identified their health risks, stressing self-care and timely interventions.

Materials and Methods : A cross-sectional online survey was conducted including 494 Clinicians, gathering data on demographics, work habits, lifestyle choices, and health metrics like BMI, neck and waist circumferences and Blood Pressure. We also assessed their daily activities, sleep duration and symptoms indicating potential health concerns.

Results : The survey demographics showed a distribution of ages from 30-60 years with a male predominance (67.2%). Educational backgrounds varied, with Postgraduate degrees being prevalent (50.6% medical, 36.6% surgical). Work patterns indicated varied hours, with 31.4% working 6 to 8 hours daily. Physical activity was moderate, with 70.9% exercising daily. Sleep patterns were adequate (72.9% slept 6 to 8 hours), and dietary habits leaned towards Vegetarian choices (41.1%), with a high rate of eating out (81.6%). Common health issues included Hypertension (47.5%) and knee pain (86%). Lifestyle factors showed low smoking rates (92.3% never smoked) and occasional Alcohol consumption (71.7%). Increased BMI was associated with longer sitting and acanthosis nigricans was found to be associated with higher BMI.

Conclusion : The survey found concerning health trends among Clinicians: longer sitting hours linked to higher BMI, especially in those with Acanthosis Nigricans. A significant number led sedentary lifestyles, lacked sufficient sleep and showed symptoms of obstructive sleep apnea.

Key words : IMA, Doctors, Lifestyle Disorders, Obesity.

I n recent years, there has been a concerning rise in the incidence of sudden cardiac deaths among doctors, which sheds light on the distinct health challenges faced by those in the medical profession[1]. The dedication to caring for others often overshadows the necessity of self-care among healthcare practitioners. On the contrary, disregarding and neglecting cardiovascular well-being can result in severe fatal consequences.

Because of the demanding nature of the medical profession, doctors are exposed to cardiovascular

> **Editor's Comment :**
> - Most of the clinicians have prolonged sitting time and sedentary lifestyle resulting in high BMI and related health issues.
> - Setting self-care as a top priority through regular physical activity, a balanced diet and adequate sleep is essential for their personal well-being and also serves as a useful model for the patients they counsel and care for.

disease and sudden cardiac events. Doctors frequently endure extended working hours, high-stress levels, irregular eating habits and limited opportunities for engaging in physical activity, which contribute to conditions such as Hypertension, Obesity, and Diabetes, all of which elevate the risk of Heart Disease[2].

AIMS AND OBJECTIVES

The objective of this study was to examine the health metrics and lifestyles of doctors to identify potential risks to their health, thereby highlighting the criticality of timely interventions and self-care.

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MATERIALS AND METHODS

Study Design : An online cross-sectional survey was conducted in September-October, 2023 among 494 random IMA doctors from multiple specialties spread over different Indian states. The data collected was regarding their work habits, lifestyle choices and diet, along with health metrics and anthropometric measurements, using a Google form that was circulated via WhatsApp, SMS and mail.

Inclusion Criteria : IMA member doctors who consented to the survey.

Exclusion Criteria : Non IMA doctors or those not consenting to the survey.

Data Collection : The Google form and its web link with the description were sent to the participants via WhatsApp, SMS and mail. Participation in the study was voluntary. Participants provided informed consent and their responses were kept anonymous and confidential throughout the study. This was ensured by excluding personal identifiable information and deselecting the "collect email addresses" option in the Google Forms settings.

The participants were asked to get their Blood Pressure measured in the right arm using the mercury sphygmomanometer with a standard cuff size in a sitting position after about 5 minutes of rest. Elevated Blood Pressure was defined as Systolic more than 140 and Diastolic more than 90mmHg.

Waist Circumference (WC) was measured at a point midway between the lowest rib and the iliac crest. Abdominal obesity was defined as WC>90cm in Males and 80cm in Females[4]. Participants were asked to measure their height and weight using a standard stadiometer and weighing scale. Body Mass Index (BMI) was calculated from the Weight and Height and expressed as kg/m^2. BMI of between 25-29.9 kg/m^2 was categorized as overweight and ≤ 30 kg/m^2 was categorized as Obese[5].

Neck circumference was measured at mid-neck, between the mid-cervical spine and the mid anterior neck, on subjects standing upright and facing forwards, with shoulders relaxed. In men with a laryngeal prominence (Adam's apple), it is measured just below the prominence[6,7].

Study Questionnaire : The Google form contained a structured, validated questionnaire that was developed through literature review[3] and comprised 26 questions that took about 10-15 minutes to complete, along with anthropometric data in the form of Height, Weight, BMI, Waist and Neck circumference and recent Blood Pressure.

The parts of the questionnaire were :

(a) Personal background in the form of age group, gender and profession.

(b) Total working hours are divided into sitting and standing hours.

(c) Physical activity in the form of exercise or sports.

(d) Sleep quality and quantity.

(e) Menstrual status in women.

(f) Dietary choices and practices.

(g) Addictions like Tea, Coffee, Smoking and Alcohol.

(h) Major medical Co-morbidities.

(i) Symptoms related to poor lifestyle and physical activity.

(j) Blood pressure and anthropometric measurements.

(k) Recent workup related to lifestyle disorders.

Statistical analysis : Data analysis was conducted statistically using Statistical Package for the Social Sciences (SPSS), Version 25 (IBM Corporation, Armonk, New York, USA).

RESULTS

Demographics and Education : Among the surveyed Clinicians, the majority fell within the age group of 40 to 50 years, comprising 36.8% of the total. In terms of gender distribution, Males constituted the larger proportion at 67.2%. Regarding education, Postgraduates accounted for the highest percentage, with 50.6% holding Postgraduate degrees (Table 1).

Table 1 — Demographics and Education		
Variable	Characteristics	N (%)
Age	>30 years	23 (4.5%)
	31 to 40 years	123 (25.1%)
	41 to 50 years	182 (36.8%)
	51 to 60 years	89 (18%)
	above 60 years	77 (15.6%)
Gender	Male	332 (67.2%)
	Female	162 (32.6%)
Education	General practitioners (MBBS)	63 (12.6%)
	Non-Surgical Clinicians	250 (50.6%)
	Surgical Clinicians	181 (36.6%)

Work and Physical Activity : A significant portion of participants reported varying working hours, with 31.4% working for 6 to 8 hours per day, 41.3% working for 8 to 10 hours per day and 27.3% working for more than 10 hours per day. In terms of physical activity, 70.9% exercised daily, with preferences for Cardio exercises (31.1%), Yoga (18.8%) and strength training (16%). Only 17.4% engaged in regular sports activities (Table 2).

Sleep and Dietary Habits : Sleep patterns indicated that 72.9% of participants slept regularly for 6 to 8 hours per day, while 21.3% slept less than six hours per day. Regarding dietary habits, 41.1% were pure Vegetarians, and a majority ate Salads (55.3%) and fruits (57.9%) daily. However, a significant portion (81.6%) reported eating out regularly (Table 3).

Health Conditions and BMI : The study revealed prevalent health conditions among clinicians, including Hypertension (47.5%), Diabetes (27.5%), and Dyslipidemia (60%). Common complaints included Backache (58.3%), Knee pain (86%) and acanthosis nigricans (91.1%). The mean BMI varied across sitting hours, with higher BMI observed in participants with longer sitting hours. Those with acanthosis nigricans had significantly higher BMI levels.

Health Markers and Lifestyle Factors : Among lifestyle factors, smoking was rare (92.3% never smoked), while alcohol consumption was occasional (71.7% consumed alcohol occasionally). Physical activity levels varied, with 70.9% exercising daily, but only 13.1% exceeding 400 minutes per week. Preferred exercises included Cardio (31.1%) and Yoga (18.8%). Dietary habits showed a mix of Vegetarian and Non-vegetarian choices, with a significant portion eating outside regularly (81.6%).

Association between BMI and sitting hours, as well as the presence of Acanthosis Nigricans : The mean BMI increased with longer daily sitting hours, with statistically significant differences observed (p=0.0026). Participants with acanthosis nigricans had a significantly higher mean BMI compared to those without (p<0.0001)(Table 4).

DISCUSSION

Doctors play a pivotal role in determining the health outcomes of any nation. The demanding workload in an overpopulated country like India with limited resources leads to Clinicians adopting unhealthy lifestyles. Despite their medical expertise, they often fail to heed the advice they dispense to their patients[8].

A lack of proactive health-seeking behavior, prioritizing patients' well-being over their own, compounded by the competitive environment of the profession, long work hours, sleep deprivation and the emotional strain of patient care, including exposure to traumatic events and ethical quandaries, can escalate stress levels and cardiovascular risk factors among Physicians[9-13]. Also, many doctors may underestimate their own risk of Cardiovascular Disease or fail to recognize warning signs until it's too late, leading to delayed diagnosis and intervention.

Addressing the Issue : To address the deteriorating health conditions and the rising incidence of sudden cardiac deaths amongst doctors, proactive measures need to be highly recommended. These include

Table 2 — *Work and Physical Activity*			
Variable	Characteristics	N	(%)
Working Hours	6 to 8 hours/day	155	31.4
	8 to 10 hours/day	204	41.3
	More than 10 hours/day	135	27.3
Physical Activity	Exercising daily	350	70.9
	Cardio exercises	154	31.1
	Yoga	93	18.8
	Strength training	79	16
	Regular sports	86	17.4

Table 3 — *Sleep and Dietary Habits*			
Variable	Characteristics	N	(%)
Sleep Patterns :			
Sleep Duration	6 to 8 hours per day	361	72.9
	Less than 6 hours	105	21.3
Eating Habit :			
Pure Vegetarians	Yes	203	41.49
	No	286	58.51
Salads Daily	Yes	273	55.27
	No	221	44.73
Fruits Daily	Yes	286	57.89
	No	208	42.11
Reported Eating out Regularly	Yes	203	49.63
	No	206	50.37

Table 4 — *Association between BMI and sitting hours, as well as the presence of Acanthosis Nigricans*			
Parameter	Mean BMI	Standard Deviation (SD)	p-value
Daily Sitting Hours: <2	26.3	±3	0.0026
Daily Sitting Hours: 2-4	25.5	±3.1	
Daily Sitting Hours: 4-6	26.6	±3.8	
Daily Sitting Hours: >6	27.2	±4.4	
Acanthosis Nigricans (Present)	30.6	±4.9	<0.0001
Acanthosis Nigricans (Absent)	26.1	±3.5	

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prioritizing their own health by adopting healthy lifestyle habits and scheduling regular check-ups for physical and mental well-being. Promoting regular exercise, healthy eating habits and adequate sleep among physicians can improve their physical health, boost immunity and enhance resilience to stress. Educating doctors about the signs and symptoms of Burnout, Depression and Anxiety can help in early intervention and treatment.

CONCLUSION

The health and well-being of doctors are indispensable components of a robust and effective healthcare system. Doctors serve as role models for their patients and communities. By prioritizing their own health, clinicians demonstrate the importance of self-care and wellness practices to their patients. Doctors who are physically and mentally well are better equipped to make sound medical decisions, communicate effectively with patients, and exhibit empathy and compassion. Conversely, when doctors neglect their health, they may experience burnout, fatigue and decreased cognitive function, all of which can compromise patient safety and quality of care. The recent increase in sudden deaths among doctors serves as a stark reminder of the importance of prioritizing self-health within the medical profession.

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REFERENCES

1 Pandey SK, Sharma V — Sudden and early death among medical professionals: How to reverse this trend? *Indian Journal of Ophthalmology* 2023; **71:** 2286-7. https://doi.org/10.4103/ijo.ijo_3229_22.

2 Thabit HA — Prevalence of Hypertension Among Doctors and Risk Factors in Al-Thawra Hospital, Sanaa in 2019. *Biomedical Journal of Scientific & Technical Research* 2021; 36. https://doi.org/10.26717/bjstr.2021.36.005838.

3 World Health Organization. (ý2018)ý. 2018 Global reference list of 100 core health indicators (ýplus health-related SDGs)ý. World Health Organization. https://iris.who.int/handle/10665/259951. License: CC BY-NC-SA 3.0 IGO.

4 World Health Organization. Obesity: preventing and managing the global epidemic: report of a WHO consultation.

5 Body Mass Index Table 1 n.d. https://www.nhlbi.nih.gov/health/educational/lose_wt/BMI/bmi_tbl.htm.

6 Vatier C, Poitou C, Clément K — Evaluation of visceral fat in massive obesity. In Nutrition in the Prevention and Treatment of Abdominal Obesity 2014; 68-73. Amsterdam, The Netherlands: Elsevier.

7 Hingorjo MR, Qureshi MA, Mehdi A — Neck circumference as a useful marker of obesity: a comparison with body mass index and waist circumference. *Journal of the Pakistan Medical Association (JPMA)* 2012; **62(1):** 36.

8 Montgomery AJ, Bradley C, Rochfort A, Panagopoulou E — A review of self-medication in physicians and medical students. *Occupational Medicine* 2011; **61(7):** 490-7.

9 Pandey SK, Sharma V — Doctor, heal thyself: Addressing the shorter life expectancy of doctors in India. *Indian Journal of Ophthalmology* 2019; **67(7):** 1248-50.

10 Andrew LB, Brenner BE — Physician suicide. Medscape Drugs Dis; 2018.

11 Hegde SK, Sathiyanarayanan S, Venkateshwaran S, Sasankh A, Ganeshkumar P, Balaji R — Prevalence of diabetes, hypertension and obesity among doctors and nurses in a medical college hospital in Tamil Nadu, India. world. 2015; **1(4)**.

12 Wu Y, Jiang F, Wu S, Liu Y, Tang YL — Sleep duration and satisfaction among physicians in tertiary public hospitals in China: a large sample national survey. *Journal of Occupational Medicine and Toxicology* 2021; **16:** 1-5.

13 Kumar S — Burnout and doctors: prevalence, prevention and intervention. In Healthcare. *MDPI* 2016; **4(3):** 37.