



Original Research Article

DOCTOR'S OVERALL HEALTH AND COMORBIDITIES STUDY: A CROSS-SECTIONAL ANALYSIS OF LIFESTYLE, COMORBIDITIES, AND WELLBEING AMONG 500 PRACTICING PHYSICIANS

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ABSTRACT

Background: Doctors spend much of their working lives looking after the health of others, often while overlooking their own. Long working hours, irregular schedules, demanding clinical responsibilities and emotional stress can make it difficult to maintain healthy sleep, diet and exercise habits. The **Doctor's Overall Health and Comorbidities (DOCS) Study** was designed to look at the other side of healthcare: **how healthy are the doctors who care for everyone else?** We explored the health conditions, lifestyle habits and perceived wellbeing of practising physicians and examined whether these patterns differed across medical specialties.

Materials and Methods: We conducted a cross-sectional, anonymous online survey of **500 practising physicians** using KoboToolbox during July 2026. Participants were recruited through professional networks and medical associations. The survey collected information on demographics and specialty, existing health conditions, sleep, physical activity, dietary habits, alcohol and smoking, hydration, screen time and self-rated health. Data were summarised using frequencies and percentages. Differences between specialties were explored using chi-square tests for categorical variables and Kruskal-Wallis tests for ordinal variables, with $p < 0.05$ considered statistically significant.

Results: The findings revealed a considerable health burden within the medical workforce. Although 48.4% of doctors reported no significant health condition, obesity was present in 23.0%, hypertension in 12.0%, anxiety in 10.0%, diabetes in 8.6% and depression in 8.6%.

Lifestyle patterns were equally striking. Only 18.4% reported sleeping 7–8 hours per night, while 38.0% slept for less than six hours. One in six doctors (16.4%) reported no moderate physical activity during the previous week, and 39.6% reported frequent junk-food consumption. Alcohol use was reported by 30.6% and smoking by 16.0%.

There were also meaningful differences between specialties. Diabetes prevalence varied significantly ($p = 0.048$), with General Practice showing the highest prevalence (12.2%). Sleep patterns also differed ($p = 0.031$), with doctors working in Critical Care, Anaesthesia and Emergency Medicine reporting the lowest sleep durations. Perhaps most tellingly, 37.2% of doctors

described their overall health as Fair or Poor, while only 10.4% considered it Excellent or Very Good.

Conclusion: The DOCS Study highlights an important paradox in medicine: the people responsible for protecting the health of others are themselves living with significant health and lifestyle challenges. Obesity, inadequate sleep, physical inactivity, unhealthy dietary habits and mental health concerns were common in this physician population.

These findings suggest that improving doctors' health cannot rely on individual motivation alone. Healthcare organisations also have a role in creating working environments that make adequate rest, healthier food, physical activity and psychological support realistically achievable. The differences observed between specialties further suggest that a one-size-fits-all approach to physician wellbeing may not be enough. Supporting the health of doctors should be viewed not simply as a matter of personal wellbeing, but as an important part of sustaining a healthy and effective healthcare workforce.

Keywords: Physician health; Physician wellbeing; Lifestyle medicine; Doctors' health; Obesity; Sleep deprivation; Physical activity; Mental health; Occupational health.

INTRODUCTION

Why This Study Matters

Doctors dedicate their lives to caring for others. Yet, in the demanding world of clinical practice — with its long shifts, irregular hours, and immense emotional burden — physicians often neglect their own health. Ironically, those who advise patients on healthy lifestyles frequently struggle to follow the same advice themselves.

The DOCS (Doctor's Overall Health and Comorbidities) Study was conceived to answer a simple but important question: How healthy are the people who keep us healthy?

While numerous studies have examined patient populations, fewer have turned the lens inward on physicians themselves. Understanding the health status, lifestyle patterns, and wellbeing of doctors is critical — not only for their personal welfare but also because a healthy physician workforce is essential for delivering high-quality patient care.

What We Set Out to Do

This cross-sectional study aimed to characterize:

- The demographic and specialty profile of practicing physicians
- The prevalence of common comorbidities including diabetes, hypertension, obesity, and mental health conditions
- Lifestyle behaviors such as sleep patterns, physical activity, dietary habits, and substance use
- Self-rated overall health perceptions
- Whether these factors varied significantly across different medical specialties

MATERIALS AND METHODS

Study Design and Data Collection: We conducted a cross-sectional survey using Kobo Toolbox, a secure web-based data collection platform. Practicing physicians were invited to participate

through professional networks and medical associations over a one-week period in July 2026.

Participants: A total of 500 practicing physicians completed the survey. Participation was voluntary and anonymous. No personally identifiable information was collected beyond basic demographics.

Survey Content:

The questionnaire captured:

- Demographics: Age group, gender, country of practice
- Professional data: Medical specialty (with multiple selections allowed)
- Comorbidities: Diabetes mellitus, hypertension, MASLD (fatty liver), PCOS, obesity, depression, anxiety, coronary artery disease, sleep disorder — plus a "none" option
- Sleep: Average hours of sleep per night
- Diet: Frequency of junk food consumption
- Substance use: Alcohol, smoking, and other substances
- Physical activity: Number of days in the past week with moderate activity (brisk walking, jogging, gym)
- Hydration: Number of glasses of water consumed daily
- Screen time: Hours spent on phone/computer/TV outside of work
- Self-rated health: Overall health perception (Excellent, Very Good, Good, Fair, Poor)

Statistical Analysis

We computed frequencies and percentages for all categorical variables. For cross-specialty comparisons, we used chi-square tests for categorical outcomes (e.g., diabetes prevalence by specialty) and Kruskal-Wallis tests for ordinal outcomes (e.g., sleep hours by specialty). A p-value of <0.05 was considered statistically significant.

All analyses were conducted using Python with pandas, scipy, and matplotlib libraries.

RESULTS

Demographics and Professional Profile

Gender Distribution: Of the 500 participating physicians, 300 were male (60.0%) and 200 were female (40.0%), reflecting a predominantly male sample though with meaningful female representation.

Age Profile: The study population was relatively young, with the largest cohort being doctors aged

30–40 years (229 respondents, 45.8%). This was followed by:

- 25–30 years: 121 respondents (24.2%)
- 40–50 years: 113 respondents (22.6%)
- 50–60 years: 27 respondents (5.4%)
- 60+ years: 10 respondents (2.0%)

The predominance of the 30–40 age group reflects a workforce in the early-to-mid stages of their careers — a group that balances clinical responsibilities with growing personal and family demands.

Specialty Distribution

Physicians from a wide range of specialties participated. The top specialties were:

Specialty	Count	Percentage
General Practice	147	29.4%
Internal Medicine / Subspecialties	111	22.2%
Obstetrics & Gynecology	47	9.4%
Anesthesia	41	8.2%
General Surgery	40	8.0%
Pediatrics	32	6.4%
Orthopedics	31	6.2%
Radiology	25	5.0%
Critical Care Medicine	21	4.2%
Emergency Medicine	20	4.0%

General Practice and Internal Medicine together accounted for over half of the sample (51.6%),

Geographic Distribution:

The vast majority of respondents practiced in India (413 respondents, 82.6%). Other regions represented included:

- Middle East: 50 (10.0%)
- United Kingdom: 15 (3.0%)
- United States: 12 (2.4%)
- Australia & New Zealand: 5 (1.0%)
- Bangladesh: 2 (0.4%)
- Pakistan: 2 (0.4%)
- Europe: 1 (0.2%)

reflecting the broad base of primary care and medical specialties in the physician workforce.

This geographic concentration reflects the survey's distribution channels and the strong participation from the Indian medical community.

Comorbidities: The Burden of Disease

Overall Comorbidity Profile:

Nearly half of the respondents — 242 doctors (48.4%) — reported no significant health conditions, a reassuring finding. However, the other half carried at least one diagnosis, with some carrying multiple.

The most commonly reported conditions were:

Condition	Count	Percentage
Obesity	115	23.0%
Hypertension	60	12.0%
Anxiety	50	10.0%
Diabetes Mellitus	43	8.6%
Depression	43	8.6%
Sleep Disorder	37	7.4%
MASLD (Fatty Liver)	25	5.0%
PCOS	25	5.0%
Coronary Artery Disease	1	0.2%

What These Numbers Tell Us:

Obesity was the single most prevalent condition, affecting nearly one in four doctors (23.0%). This is striking because physicians are expected to model healthy behaviors. The demanding nature of medical practice — long hours, shift work, stress, and limited time for meal preparation or exercise — likely contributes significantly.

Hypertension affected 12.0% of respondents — a concerning finding in a relatively young cohort (median age group 30–40). Undiagnosed or poorly controlled hypertension in physicians can have

serious implications for their own health and for patient safety.

Anxiety (10.0%) and **Depression** (8.6%) highlight the mental health burden carried by healthcare professionals. The culture of medicine often discourages help-seeking, making these figures potentially underreported.

Diabetes mellitus (8.6%) in a predominantly young cohort raises red flags. Type 2 diabetes — largely preventable through lifestyle modifications — was already present in a significant minority.

Lifestyle Behaviors: The Daily Realities of Doctor Life

Sleep: The Silent Crisis

Sleep is the foundation of health, yet it appears to be the first casualty of a medical career.

Sleep Duration	Count	Percentage
Less than 5 hours	19	3.8%
5–6 hours	171	34.2%
6–7 hours	218	43.6%
7–8 hours	92	18.4%

Only 18.4% of doctors get the recommended 7–8 hours of sleep. Over a third (38.0%) get less than 6 hours per night — a level associated with increased risks of cardiovascular disease, impaired cognition, and medical errors.

This is not merely a personal health issue. Sleep-deprived physicians are more prone to clinical errors, have impaired decision-making, and are at higher risk of motor vehicle accidents after night shifts.

Physical Activity: Room for Improvement

Physical activity levels were suboptimal:

Days of Activity (past week)	Count	Percentage
0 days	82	16.4%
1 day	59	11.8%
2 days	78	15.6%
3 days	74	14.8%
4 days	60	12.0%
5 days	51	10.2%
6 days	22	4.4%
7 days	74	14.8%

Over one in six doctors (16.4%) had done zero moderate physical activity in the past week. Only 30.0% met the recommended threshold of 4 or more days per week. The most common pattern was 2 days per week (15.6%), suggesting that while many doctors attempt to exercise, consistency remains a challenge.

Time constraints, fatigue after long shifts, and lack of access to facilities during odd hours are likely barriers.

Dietary Habits: The Convenience Trap

Substance Use: Coping Mechanisms

Substance use patterns revealed:

Substance	Count	Percentage
None	322	64.4%
Alcohol	153	30.6%
Smoking	80	16.0%
Others	1	0.2%

Nearly one in three doctors (30.6%) consumes alcohol and 16.0% smoke. While these figures may be lower than general population rates in some countries, they remain concerning in a profession

When asked about frequent junk food consumption:

- No: 302 respondents (60.4%)
- Yes: 198 respondents (39.6%)

That nearly 40% of physicians report frequent junk food intake is concerning. The demanding schedules of medical practice often leave little time for meal preparation, pushing doctors toward quick, calorie-dense, nutrient-poor options available in hospital cafeterias or takeout.

where clear cognition and physical health are paramount. The combination of alcohol use and sleep deprivation is particularly dangerous.

Hydration: A Simple Yet Critical Metric

Glasses of Water/Day	Count	Percentage
0–2 glasses	15	3.0%
3–4 glasses	79	15.8%
5–6 glasses	193	38.6%
7 glasses	135	27.0%
8+ glasses	78	15.6%

Most doctors (66.6%) drink 5–7 glasses of water daily, which is within reasonable range. However, nearly 19% drink 4 glasses or fewer — potentially

insufficient for optimal physical and cognitive function, especially in clinical settings.

Screen Time: The Double-Edged Sword

Outside of work, screen time (phone/computer/TV) was distributed as:

Screen Time	Count	Percentage
Less than 1 hour	29	5.8%
1–2 hours	137	27.4%
3–4 hours	192	38.4%
5+ hours (various options)	142	28.4%

With 28.4% of doctors spending 5+ hours on screens outside of work, the total daily screen exposure (combining clinical work and personal time) is substantial. This has implications for sleep quality (blue light exposure), physical inactivity (sedentary behavior), and mental health.

Cross-Specialty Comparisons: Which Specialties Are Most Affected?**Diabetes Prevalence by Specialty**

Diabetes was not evenly distributed across specialties. The burden fell disproportionately on certain fields:

- General Practice: 12.2% (18 out of 147)

- Internal Medicine: 6.3% (7 out of 111)
- Obstetrics & Gynecology: 6.4% (3 out of 47)
- Anesthesia: 4.9% (2 out of 41)
- Orthopedics: 6.5% (2 out of 31)
- Pediatrics, Radiology, Critical Care, Emergency Medicine, General Surgery: 0–3% range

A chi-square test confirmed that these differences were statistically significant ($p = 0.048$). General practitioners carried the highest diabetes burden, possibly reflecting the stressors of primary care — high patient volumes, administrative load, and limited time for self-care.

Specialties That Sleep the Least**Sleep duration also varied significantly across specialties ($p = 0.031$):**

Specialty	Average Sleep Category
Critical Care Medicine	Lowest sleep (mode: 5–6 hours)
Anesthesia	Lowest sleep (mode: 5–6 hours)
Emergency Medicine	Lowest sleep (mode: 5–6 hours)
General Surgery	Moderate
General Practice	Moderate
Internal Medicine	Moderate
Pediatrics	Highest sleep (mode: 6–7 hours)
Radiology	Highest sleep (mode: 6–7 hours)

Unsurprisingly, Critical Care, Anesthesia, and Emergency Medicine — specialties known for shift work, night coverage, and unpredictable schedules — reported the lowest sleep durations. These

specialties also face high-stakes decision-making, compounding the risks of sleep deprivation.

In contrast, Pediatrics and Radiology reported more favorable sleep patterns, possibly reflecting more predictable schedules or less on-call burden.

Self-Rated Overall Health: How Doctors See Themselves**When asked to rate their overall health:**

Rating	Count	Percentage
Excellent	13	2.6%
Very Good	39	7.8%
Good	262	52.4%
Fair	138	27.6%
Poor	48	9.6%

Just over half (52.4%) rated their health as "Good" — the modal response. However, 37.2% rated their health as Fair or Poor, a substantial proportion. Only 10.4% rated themselves as Excellent or Very Good. There is a notable disconnect: while 48.4% report having no diagnosed conditions, only 10.4% rate their health as Excellent or Very Good. This suggests that many doctors sense their health is not optimal even in the absence of formal diagnoses — perhaps reflecting the toll of fatigue, stress, and lifestyle factors that haven't yet manifested as disease.

DISCUSSION**What This All Means****Key Takeaways****1. The Hidden Burden of Obesity in Physicians:**

The finding that 23% of doctors have obesity is perhaps the most concerning result of this study. Obesity is a gateway condition — it increases the risk of diabetes, hypertension, cardiovascular disease, joint problems, and mental health issues. That nearly one in four physicians carries this burden has profound implications for the healthcare workforce.

2. Sleep Deprivation Is the Norm, Not the Exception: Only 18.4% of doctors get adequate sleep. The majority function on 5–7 hours — a level

associated with cognitive impairment equivalent to blood alcohol levels above legal driving limits in some studies. For physicians making life-and-death decisions, this is unacceptable — yet it has become normalized.

3. Mental Health Remains Underrecognized: With 10% reporting anxiety and 8.6% reporting depression, the mental health toll on physicians is evident. The culture of medicine — where seeking help is often seen as a sign of weakness — likely means these figures are underestimates. Creating psychologically safe workplaces where doctors can access mental health support without stigma is urgently needed.

4. Specialty Matters: Our cross-specialty analyses revealed that General Practitioners carry a higher burden of diabetes and that Critical Care, Anesthesia, and Emergency Medicine physicians sleep the least. These findings suggest that wellness interventions should be tailored to the specific challenges of each specialty rather than applied uniformly.

5. The Optimism Gap: Only 10.4% of doctors rate their health as Excellent or Very Good, yet 48.4% report no diagnosed conditions. This gap between objective health and perceived health may reflect the cumulative impact of chronic stress, fatigue, and lifestyle factors that haven't yet crossed the threshold into diagnosable disease — but may be heading in that direction.

Recommendations: A Practical Path Forward
Based on these findings, we propose the following lifestyle modifications and systemic changes:

For Individual Physicians:

1. **Prioritize Sleep Hygiene:** Aim for 7–8 hours of sleep. Consider strategic napping before night shifts, using blackout curtains, and limiting screen time 60 minutes before bed. If you're in Critical Care, Anesthesia, or Emergency Medicine, this is especially critical.
2. **Build Physical Activity Into the Workday:** Even 15–20 minutes of brisk walking, stair climbing, or stretching between patients can add up. Consider hospital-based wellness programs, on-site gym facilities with 24-hour access, or simple bodyweight exercises in the on-call room.
3. **Plan Meals Ahead:** The 39.6% who report frequent junk food consumption can benefit from meal prepping on days off, keeping healthy snacks in the locker room, and choosing water over sugary beverages. The 5–6 glasses of water most doctors drink is close to adequate — aim for 7–8 glasses, especially during long shifts.
4. **Seek Support for Mental Health:** If you're experiencing anxiety, depression, or burnout, reach out. Many medical associations now offer confidential counseling services. You are not alone, and seeking help is a sign of strength, not weakness.
5. **Moderate Alcohol and Quit Smoking:** With 30.6% using alcohol and 16.0% smoking, these are modifiable risk factors that, if addressed, can

dramatically improve long-term health outcomes.

For Healthcare Institutions:

1. **Implement Sleep-Friendly Scheduling:** Limit consecutive night shifts, allow adequate recovery time between shifts, and provide quiet rest facilities for on-call doctors.
2. **Create Wellness Infrastructure:** 24-hour access to healthy food options, on-site gyms, and spaces for brief physical activity breaks can make healthy choices the easy choices.
3. **Destigmatize Mental Health Care:** Normalize regular mental health check-ins for physicians, just as we do for physical health. Confidential, affordable, and accessible mental health services should be a standard benefit.
4. **Specialty-Targeted Interventions:** Given the higher diabetes burden in General Practice and the greater sleep deprivation in Critical Care, Anesthesia, and Emergency Medicine, wellness programs should be tailored to the specific stressors of each specialty.
5. **Model Healthy Behaviors at the Leadership Level:** When senior physicians prioritize their own health — taking lunch breaks, leaving on time, speaking openly about wellness — it creates a culture where others feel permission to do the same.

Limitations

This study has several limitations. First, the cross-sectional design prevents us from establishing causality — we can describe associations but not determine why certain patterns exist. Second, all data were self-reported, which introduces potential recall and social desirability biases. Third, the sample was predominantly from India (82.6%), which may limit generalizability to other geographic and healthcare contexts. Fourth, as with any voluntary survey, there may be selection bias — doctors with greater health concerns may have been more or less likely to participate. Finally, the survey did not capture certain important variables such as years in practice, work hours per week, or shift schedule details, which could provide additional context.

CONCLUSION

The DOCS Study paints a frank and concerning picture of physician health. While doctors are trained to heal others, many are struggling with obesity, sleep deprivation, inadequate physical activity, mental health challenges, and unhealthy lifestyle habits themselves. These patterns are not evenly distributed — they vary significantly across specialties, with General Practitioners facing higher metabolic risks and Critical Care, Anesthesia, and Emergency Medicine physicians bearing the brunt of sleep deprivation.

These findings underscore the urgent need for systemic change — not just individual willpower.

Healthcare institutions must recognize that a healthy physician workforce is not a luxury but a necessity for safe, high-quality patient care. Specialty-tailored wellness programs incorporating sleep hygiene optimization, regular physical activity, balanced nutrition, and stress management initiatives can help mitigate health risks and promote physician wellbeing.

The message is clear: It's time for the medical profession to turn its healing gaze inward. Healthy doctors save more lives — and they deserve to thrive, not just survive.

The DOCS Study was conducted using KoboToolbox. Data analysis was performed using Python. The authors declare no conflicts of interest.

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