Physician health: A review of lifestyle behaviors and preventive health care among physicians

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ABSTRACT: The field of physician health is receiving increasing attention; however, most research and interventions have concentrated on job stress, mental health, and substance abuse. Much less is known about preventive health and lifestyle behaviors among physicians, and few programs have been established in these areas. This review summarizes the literature regarding physician nutrition, exercise, sleep, and self-care. Physicians, like the general population, need to work on improving their diets and increasing physical activity. They are often subject to prolonged sleep deprivation, and many neglect their own health care and do not take appropriate preventive measures. All of these areas warrant further research and possible intervention, as improved physician health has been linked to more frequent and successful counseling with patients about lifestyle behaviors. In promoting healthy lifestyles, physicians, patients, and the health care system as a whole stand to benefit.

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Physicians have traditionally neglected their own health in favor of their many professional and personal obligations. The culture of medicine promotes the belief that physicians are never ill; doctors are typically very independent, competitive, and high achieving, and they often view attention to their own needs as a sign of weakness.

Attitudes have shifted, however, and increasing attention is being paid to physician health. Self-care is now considered a core competency by the Royal College of Physicians and Surgeons of Canada, as physicians are expected to "demonstrate a commitment to physician health and sustainable practice."[1] Medical associations are beginning to recognize the demands of the profession and the potential health risks involved, and several have created programs to address the health care needs of their members.[2] Furthermore, we are recognizing that the health of physicians directly impacts the health of the larger population, as numerous studies have established a link between the health behaviors of physicians and their interactions with patients.[3]

At present, the vast majority of research in the area of physician health has focused on three areas: work-related stress and burnout; mental health disorders such as depression and suicide; and substance abuse. In contrast, there has been less research to date into lifestyle behaviors and preventive health care among physicians. The 2007 Physician Health Survey conducted by E. Frank and C. Segura, in conjunction with the Canadian Medical Association and several provincial organizations, is the largest and most comprehensive study of these issues to date.[4] This and other studies have brought to light several aspects of physician health that warrant further attention such as nutrition, exercise, sleep, and self-care. These are issues that affect every physician on a daily basis. Not all doctors will have to deal with substance abuse or depression, but all face the challenge of incorporating healthy preventive habits into their busy lives. An increased focus on healthy daily living among physicians could help prevent the progression to serious health issues, including mental health problems and addiction.

This review presents a summary of what is known in relation to nutrition, exercise, sleep, and self-care among physicians, drawing on research from both Canadian and international studies. It also examines the current programs (or lack thereof) targeting these aspects of physician health, and suggests possible future directions for both research and interventions.

Nutrition

As we face a growing obesity crisis, the need for increased focus on healthy eating habits becomes more and more prominent. It appears that physicians, like the rest of the population, could

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use some improvement in their diets. Canadian physicians report an average daily consumption of 4.8 servings of fruits and vegetables, with over half of physicians eating the minimum five recommended servings.[4] While this figure is higher than in the general population, there is still considerable room for improvement. This importance of physicians as role models for proper nutrition is highlighted by the fact that fruit and vegetable consumption in the general Canadian population declined for the first time between 2009 and 2010, falling from 48% to 43%.[5]

Studies with both American and Canadian physicians show a strong personal-clinical relationship in many aspects of health care counseling such as nutrition, exercise, smoking, and alcohol use.[2,6] Physicians who eat a healthy diet themselves are more likely to counsel their patients about the importance of proper nutrition; furthermore, this counseling is more likely to be effective at inciting positive behavioral changes in patients.[2] Because of this link, it would be extremely valuable to initiate programs promoting proper nutrition among physicians and advocating the benefits of diets high in fruits, vegetables, and unprocessed whole foods.

In addition to overall diet, the issue of workplace nutrition has recently received some attention. Physicians repeatedly report that they often do not eat or drink properly, if at all, during working hours.[7] Furthermore, the effects of a nutritional intervention by Lemaire and colleagues show that there is an association between workplace nutrition and cognition.[8] All physicians surveyed reported that inadequate nutrition had some impact on them at work. Most cited emotional symptoms such as irritability and frustration; many also cited physical symptoms (lightheadedness, tremor, nausea) and cognitive effects (difficulty concentrating, poor/slow decision making). These findings are alarming given the ubiquity of inadequate nutrition among physicians, as they may result in decreased quality of patient care and medical error.

As a follow up to this study, the authors tried to identify barriers to proper workplace nutrition.[9] The most commonly cited barrier was lack of time due to excessive workloads and work scheduling (e.g., frequent lunchtime meetings). Many physicians cited lack of access to healthy food, especially those working outside of typical business hours (when the hospital cafeteria is closed at night, for instance). Inadequate food storage and lack of healthy choices were also identified as issues. Furthermore, physicians described barriers that reflect the culture of medicine and its lack of prioritization of personal wellness.

Addressing the barriers to proper workplace nutrition should be a focus for all health care organizations and independent practitioners. Not only does proper nutrition benefit the individual physician, it also enhances the quality of patient care and ultimately increases the efficiency of the organization. Policies promoting regular lunch breaks, increased healthy food choices at hospital cafeterias, extended hours of food services to accommodate nighttime staff, and improved access to food storage areas are examples of simple changes that have the potential to provide significant benefits.

Exercise

Physicians, like the rest of the population, are not consistently meeting the recommended guidelines for physical activity. The Public Health Agency of Canada guidelines specify a minimum of 150 minutes of moderate-to-vigorous physical activity per week for adults aged 18 to 65, with up to 300 minutes for maximum health benefits.[10] A recent survey of Canadian physicians revealed that physicians get an average of 20 to 25 minutes per day of total exercise; however, much of this is mild exercise such as easy walking.[4] Only about 15 minutes is either moderate or vigorous exercise, about half of the recommended minimum. This is similar to national averages, with 48% of Canadians over the age of 20 self-reporting as being at least moderately active (150 minutes per week) in 2008.[11] While the statistics among physicians may simply reflect a larger cultural problem, there may also be factors specific to medicine that discourage physical activity. A study of medical students showed that weekly exercise decreases throughout medical training, most likely due to increased workloads and long hospital shifts during the clinical years.[12]

Increasing activity levels among physicians has the potential to benefit physicians, patients, and the health care system as a whole. BC's Walk With Your Doc initiative, attended by over 100 doctors and 2000 patients around the province, is an excellent example of a simple program that encourages regular exercise in both physicians and patients and allows doctors to serve as healthy role models in their community.[13] In addition, simple modifications to the workplace can be made to promote exercise, such as installing secure bike racks, having shower facilities on-site for those who exercise before work or during their lunch break, and encouraging team entries to events such as local walk/runs.

Medical students are a key demographic for interventions promoting health and wellness. A 4-year intervention study showed that medical students who received curricular and extracurricular education on diet, exercise, alcohol, and tobacco had improved personal health practices compared with controls.[14] In addition, these students were more likely to counsel patients about healthy lifestyle habits. Many medical schools already have student wellness programs in place, such as the University of British Columbia's Wellness Initia-

tive Network, a coalition of programs aimed at promoting student health and wellness through nutrition, physical activity, emotional health, and community involvement.[15] These programs are valuable because they instill healthy habits such as regular exercise in students, with the hope that these habits will persist throughout their medical careers.

Sleep

One of the consequences of long work hours, shift work, and on-call duties is sleep deprivation, both chronic and acute. Half of general practitioners report sleep difficulties, and almost two-thirds complain of exhaustion or sleepiness at least 3 days per week.[16] The majority of studies concerning sleep and sleep deprivation have focused on residents, as 80-hour work weeks (and longer) and shifts of up to 36 hours have traditionally made them the most at-risk group.[17] Two-thirds of American residents report sleeping less than 6 hours per night, with one in five sleeping less than 5 hours.[18] To address this, limits on resident duty hours, such as those imposed by the American Accreditation Council for General Medical Education (which caps weekly hours at 80) as well as the recent legislation in Quebec capping shifts at 16 hours, are designed to help combat the problem of both acute and chronic sleep deprivation in residents.[19,20] However, the efficacy of these duty limits in reducing resident sleep-deprivation has not been conclusively examined, and some research has indicated that duty hour limits alone are unlikely to fully address the sleep deficits and resulting impairments reported by residents.[18] Furthermore, such duty hour limits raise additional areas of concern. First, the changes may adversely affect resident education; most American residency program directors, when surveyed, reported a "marked degree of concern about educating a competent generation of future physicians in the face of increasing duty hour standards and regulations."[21] In addition, cutbacks to resident hours means that health care facilities will have to find ways to cover the extra hours traditionally worked by residents, either by hiring additional staff or by increasing the workload of more senior physicians—both of which could prove especially challenging for smaller institutions with limited budgets.[17] This area is in need of further research to guide policies that will best serve all members of the medical profession and promote optimal patient safety.

Chronic sleep deprivation in physicians and residents is alarming because it has repeatedly been correlated with decreased cognitive performance, increased likelihood of medical error, and higher instances of self-injury such as needle sticks.[16] Other studies have shown that moderate sleep deprivation—equivalent to about 18 hours without sleep—can be more incapacitating than being legally drunk.[22]

Some research has begun to investigate ways to minimize physician sleep deprivation. Nelson[23] focused on emergency department physicians, a group that is characteristically vulnerable due to shift work. Nelson suggests scheduling patterns that would reduce sleep deprivation by allowing every physician at least 4 hours of constant "anchor sleep" per night, a technique that has been shown to maintain a consistent 24-hour cycle of sleep and wakefulness and to reduce fatigue.[24] Implementing this kind of revised shift scheduling is one potential avenue for reducing sleep deprivation among shift workers such as ED physicians.

Self-care

Physicians are notoriously bad patients. One-third of Australian residents do not have a GP, and an equivalent proportion of young Irish doctors had not been to see a physician (either their own GP or a walk-in clinic) in the past 5 years.

Physicians are notoriously bad patients. One-third of Australian residents do not have a GP,[25] and an equivalent proportion of young Irish doctors had not been to see a physician (either their own GP or a walk-in clinic) in the past 5 years.[26] Researchers in many countries including England, Australia, and Hong Kong indicate that a large proportion of doctors engage in self-treatment.[27] Furthermore, a significant number of physicians admitted to self-prescribing medications, a practice that is considered unethical by all medical associations and has been prohibited by legislation in certain jurisdictions.[28] Over one-third of Australian residents[25] reported self-prescribing in the past year, and 92% of Irish physicians had self-prescribed at least once in their career.[26]

Rates of compliance for screening tests such as blood pressure measurement, mammography, Pap smears, cholesterol checks, and prostate examination varied from 60% to 85% among

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Canadian physicians,[4] suggesting that not all physicians are taking the recommended measures.

Physicians commonly rely on denial and avoidance when faced with personal medical problems. Physicians very often do not seek help, even though they may realize that they need it; one study showed that only 2% of Canadian doctors who were identified as depressed had sought treatment.[29] The dominant idea in the medical profession is that physicians are never ill, and, if they do fall ill, they should silently work through their illness and put patient care above all else.[30] Furthermore, physicians may also feel pressure from both their patients and their colleagues to appear well, as their own physical health is taken to be an indicator of their medical competence.[31]

There is a definite need to continue to promote self-care in the medical profession and to debunk the myth of the infallible physician. All physicians should have their own GP who can provide regular, continual, and effective care; this would avoid the issue of self-prescribing and ensure that physicians are taking the recommended preventive screening measures. Several countries have programs in place that match physician-patients with general practitioners, such as Norway's Physicians for Physicians program[32] and Britain's Doctors for Doctors Unit.[33] At present there is no such program in BC, and this could be an area for future growth. Programs aimed at matching medical students or new residents with a family doctor might be particularly effective, as these groups are less likely to have their own GP.[14]

Conclusion

While there is increasing recognition of the importance of physician health, there are few large-scale programs targeting lifestyle behaviors in physicians. Most programs address crisis situations such as substance abuse or mental health disorders, but do not focus on daily healthy living. We are beginning to recognize the importance of preventive medicine in the general population, and physician health should be no exception to this. Given that interventions targeting preventive health care issues such as proper nutrition and regular exercise have been shown to positively impact both the personal health of physicians and their counseling practices, these would be a worthwhile investment for health care systems. In addition to targeting current practising physicians, programs aimed at medical students could have a significant impact on students' future health practices and patient interactions.

Overall, there is a need for continued promotion of physician health. We need to dispel the myth of never-ill physicians who place the needs of their patients before their own to the detriment of their own health. The culture of medicine must shift away from its highly competitive, individualistic emphasis on excessive workloads and extreme self-sacrifice and embrace changes that promote optimal physician wellness as an avenue to improved patient care. Until such a shift occurs, improving physician health will be an uphill battle.

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