# Ethical responsibility of healthcare providers to advise patients on lifestyle modifications

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**Declarations:**

The authors declare no conflict of interest.

**Contributions of the authors:**

SG is senior PhD fellow at the Sree Chitra Tirunal Institute for Medical Sciences and Technology.VRK is the Head and Senior Professor at the Sree Chitra Tirunal Institute for Medical Sciences and Technology.

Conceived and designed the study, performed the study, analysed the data, wrote the paper: SG; critically supervised, manuscript layout, reviewed: VRK

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**Abstract**:

There is clear evidence on association between health and physical activity. Physical activity is universally prescribed as a primary treatment for almost all chronic diseases. Unfortunately, studies show low levels of health professional advice to individuals which also differs by age, sex and socioeconomic status. The current study tries to examine as to how an inexpensive and effective tool to improve population health has been completely neglected in professional practice in low and middle income countries leading not only to maleficence but also to violation of human rights. Are health care providers exempted from their responsibilities because they choose so? Who should be held accountable or morally responsible for so much preventable disease and death?

**Background**:

Recent reports show that non communicable diseases are responsible for nearly 62% of all deaths(1). Diabetes alone accounted for 6.5% of the deaths. In India 65 million people had diabetes in 2016.Research has shown that controlling blood sugar levels, blood pressure, and LDL cholesterol can reduce the risk of long-term complications and death among people with diabetes(2,3) Randomised controlled trials from different parts of the world have established the proof of principle that lifestyle modification can delay or prevent the onset of type2diabetes. IDF recommends physical activity at least between three to five days a week for a minimum of 30-45 minutes between three to five days a week for a minimum of 30-45 minutes. Different parts of the world have established the proof of principle that lifestyle with physical activity and/or healthy diet can delay or prevent modification the onset of type 2 diabetes(1)(4).

Because of the significant impact that non-communicable diseases, such as diabetes, have on health systems, WHO has promoted lifestyle modifications and other public health interventions(1).

Health professionals are key to chronic disease prevention and health promotion (5). Offering vital information, conducting tests, and screenings aimed at early detection and treatment of diseases constitutes secondary prevention of diseases. Primary care physicians are often in a good position to decide on the appropriateness of an intervention focusing on secondary prevention(6). One such intervention is providing regular advice to the patients to facilitate healthier choices amongst them. In combination with other interventions, providing regular advice about physical activity, have shown to lower rates of diabetes in patients with glucose intolerance(7). Health communication about benefits of personal behaviour like diet modification and physical activity and risks of sedentary behaviour should be an integral part of each counselling or contact with the health provider. Information and awareness are two principal determinants of healthy behaviour. This information asymmetry leads to health challenges and burden for the entire health system(8). Physicians lack education in non-pharmaceutical methods, low status and lack of attitude. Health care workers’ advice and support was found to be a motivator to the initiation of exercise and physical activity.(9),2,3) Substantial research has shown that physical activity advice is an effective strategy for PA promotion(10–14). Advice by health professional has been found to be a major factor for adherence to self management practice among diabetics(15).

Studies found that only 25%-50% health care professionals advised patients to start or increase physical activity suggesting missed opportunities for disease prevention(16–18) Similar studies on self care practices among people living with diabetes show that 40% of the patients are advised by healthcare professionals to start or increase their physical activity levels. Overall counselling and referral rates among diabetics were found to be 18-36% (19–21)

Through this study, we integrate the available evidence from literature and the findings of our own study to highlight lack of regular physicians’ advice encouraging physical activity as an inexpensive and effective tool to improve population health. We also attempt to draw attention to the fact that this has been completely neglected in professional practice in low and middle income countries leading to questions about patient care accountability.

**Methods& Findings**:

We conducted a secondary data analysis using data from 2016-17 *Prevention and control of non communicable diseases in Kerala* *India* project which is a large scale survey of over 12000 households covering all districts of Kerala The primary objective of this survey was to identify the need assessment large scale behavioural intervention. For the purpose of the current study we analysed the proportion of diabetic patients from Kerala who receive regular physicians’ advice about starting or increasing their physical activity. As stated in the survey, participants were asked, “To lower your risk for certain diseases, during the past 12 months have you ever been told by a doctor or health professional to start or increase your PA or exercise.” Response options were yes or no.

We found that only 29% of individuals living with diabetes were advised by a health professional to start exercising during the last 12 months. Among all adults who participated in the study, only 16.9% had been given such advice. Among adults reporting low levels of exercise, only 19% had been advised to increase their physical activity levels. Only 21% of overweight and obese adults were advised to increase their physical activity levels. The practice of advising seems to differ by age, marital status and socioeconomic status which further exaggerate health disparities. However, there was no gender or urban–rural difference in giving such advice.

**Discussion**:

In public health, the objective is to avoid poor health in the first place by empowering people with different ways to lead healthy lives(22) There are several ethical issues surrounding health promotion and prevention of chronic diseases which concern the responsibilities of all agents including, individuals, health workers, governments (at different levels) whose actions influence the health of others. Among other things, information regarding treatment choices, preventive measures and complication related with long term medications and surgeries hold the key to health and life for people in low and middle income countries(5).

It is imperative for health workers to take an active role in promoting physical activity and reduce the future burden of non-communicable disease in resource scarce countries like India. Unfortunately, studies show low levels of health professional advice to individuals which also differs by age, sex and socioeconomic status. Various barriers to such practice have been documented, like, knowledge, time, primary focus on acute management rather than the preventive care, competing care demands, somewhat delayed clinical response to poor control, time constraint, inadequate resources and attitudinal issues(3,23,24). “Physicians have an ethical (and perhaps medical–legal) obligation to inform patients of the dangers of inactivity and promote PA to their patients in the clinical setting”(25).

Kerala recorded the highest prevalence of diabetes in the country in 2016(19%)(26). and is expected to double by 2030. This could lead to health system crisis in the state(27).The national programme provides for a comprehensive structure and training to health providers for health communication regarding benefits of physical activity and threats of a sedentary life style. There is enough evidence to show that physical activity advice by providers is a motivation for most patients yet in a country like India, providers still rely on medicines and insulin as the first tier management for diabetes. In low resource countries, this strategy could lead to improved glycemic control, bring down the burden of chronic diseases, increase life expectancy and quality of life of the population by avoiding side-effects and complications of long term use of medication and thereby bringing down cost of care to patients and therefore bringing down the cost of care to the country health resources.

Our analysis shows that in 2016, only 27.8% of adults living with diabetes had been told by a health care professional to start or increase their exercise in the past 12 months. Among all adults who participated in the study, only 16.9% had been given such advice. Among adults reporting low levels of exercise, only 19% had been advised to increase their physical activity levels. Only 21% of overweight and obese adults were advised to increase their physical activity levels.

The patients are clearly not a part of the active decision making in which they are informed about the various choices they have for disease prevention or treatment and long term management. Instead these patients who consider healthcare professionals as figures of authority are put on medications and insulin which result in multiple complications and consequences thereof ranging from economic to physical and social cost. Advice and prescribed medicines from physicians are seen by many as the ultimate source of and resource for healthier lives. Physical activity must be a part of this, in the form of opportunistic advice or encouragement, as well as more profound and committing written “prescriptions(22). Hence, by not providing regular advice regarding physical activity to diabetic patients, the physicians are not only denying the patients their right to correct information that will facilitate informed decision making, but also violating one of the fundamental tenets of the ethical code - “doing good” to ones’ patients and lead to maleficence in practice and violation of human rights. Health care professionals are morally responsible for giving preventive advice (physical activity and diet modification) and those who do not, should be held accountable and mechanisms to do so need to be evolved.

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[[1]](#footnote-1)

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