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

**Comments of Reviewer 1**:

In this manuscript the authors have presented data from a large-scale population survey in Kerala about patients with diabetes being advised on physical activity and show that a very small proportion have only been advised. This is disturbing information. The authors have argued that there is an ethical obligation to provide information on physical activity for patients with diabetes. They based this on two points – on beneficence and on the right of the patients to receive that information. This is an important piece. However, there are some important points which the authors have to address some substantive issues.

1. Diet and physical activity are the mainstay of treatment of persons with diabetes. However, several studies on self-management behaviours have demonstrated that physical activity is the least followed life style behaviour among patients with diabetes. Studies using behaviour change models such as transtheoretical model of behaviour and health belief models, have also shown that “advice” by a health care provider merely increases knowledge and may not translate to adoption of the behaviour. Even among those who are advised to take up physical activity, previous studies have shown that less than 20% actually initiate and maintain the physical activity level. My point is, analysis of how many patients with diabetes were actually advised by their health care provider to take up physical activity, while important, is in itself not an effective measure of ‘quality of care’ for diabetes.

*Author’s response-This is true that only physical activity cannot mark the quality of care for patients with diabetes, this survey was a baseline survey for a state-wide implementation project looking at lifestyle modifications and was undertaken with different objectives.*

*We used the data to collect information as a background for my larger study on physician behaviour in Kerala*. *There are numerous studies which are trying to look at the quality of care for diabetes, but most of them assess self management adherence by patients. The communication part by physicians is completely missed out*.

1. Even if we were to assume that being advised to take up physical activity is a surrogate indicator for behaviour change intervention in the domain of physical activity, there are several important problems in the measurement of this indicator. The survey asked the patients “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?”. The response to this question may depend on so many factors. It depends on whether they were recently diagnosed with diabetes, in which case there is going to be a lot of confusion and difficulty in receiving and understanding ‘advise’. The response also depends on the relative priorities of the patients. The response depends on who is considered as a health care professional – would advice by a ANM be considered as advice by a health care professional. The other important factor is the seriousness of the diabetes at the point of detection. If the patient had severe diabetes requiring hospitalization or intensive care, then the chance that they received advise on exercises would be low.

*Author’s response: There is no need to use this sole variable as an indicator for behaviour change but it is an essential first step in that direction. Yes, all these factors are the limitations of a secondary data analysis, but this could very well set the stage for studies to explore the issue in depth such as correlates, barriers, interventions, strategies for a larger change. In a country like India with a miserable doctor patient ratio, more and more responsibilities are being delegated to frontline workers, advice on lifestyle modifications communication is also listed as part of their job in the* *National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular, Diseases and Stroke (NPCDCS).*

1. Several surveys have shown that patients with diabetes, especially in states such as Kerala and Tamil Nadu, have high levels of knowledge about diabetes and self-management. However, the high level of knowledge does not translate into adoption of life style change. This is the point of major concern. Rather than focusing on advising patients on physical activity, what is more important is focusing on enabling adoption of physical activity through health promotion interventions such as building parks, planning roads with cycle pathways, creating support groups for physical activity, opening gyms and play areas in urban settings etc.

*This is true. After the advice, next comes the environment where they practice this advice, but then again first we need to look at the basic question. The present interventions focus on cognitive approaches and they have proved ineffective in bringing about a long term change in health risk behaviour elsewhere in the world. Different strategies are required keeping local context in mind.*

*It has proved challenging for us to initiate a study to collect provider information.*

1. Coming to the ethical analysis, the authors argue that not providing advice on physical activity is unethical. They base this on a duty to care principle, in which they say it is the ethical obligation to enable physical activity among their patients. It is important to reflect here that the ethical obligation does not stop with “advice” but in creating an enabling environment for physical activity. The authors should also consider the moral conflict in this context, when the health care professional provides advice, but there is no opportunity for the patient to adopt the behaviour. For example, a hard-working employee of a garment export company, leaves for work at 5 AM in the morning and returns at 10 PM at night and toils for livelihood. How will she be able to adopt the behaviour, unless there are workplace interventions, provision of gym in the company etc? In this context, constantly reinforcing the need for her to adopt physical activity may only increase here inner conflict, a sense of despair that she is unable to do anything about her health. The second ethical argument posed by the authors is denial of the right of the patients to good information that will protect their health. This is a sound argument and is justified based on the fact that often health care providers are the only source of information on health promoting behaviours. However, this also needs to change. The entire responsibility of health promotion cannot be transferred to the hospitals and health facilities. Health and Wellness centres, which the current National Health Policy is promoting, should take over the role of promoting physical activity. This is why primary health care is of utmost importance. Alongside providing advice, the primary health care system should also focus on enabling environments for promoting physical activity.

*Definitely these are the larger goals of such an enquiry. Activity supportive and enabling environments are the mainstay of sustainable physical activity among populations. Our approach with the advice stands on the prerequisite of the second argument of providing information and making it more of a matter of choice for the patient. Once the patient has options, he/she becomes an equal partner in making decisions for the course of treatment. Once they assume those roles, then different strategies could be sorted out depending on the needs of the patient*. *As for the moral conflict and other reasons for not advising, there can be other strategies to deal with the provider barriers as well, only then can a balanced relation be achieved*. *Moreover, the providers should weigh in risks versus the benefits while giving or restraining from giving any advice*

Specific issues:

1. The paper needs thorough grammar and language editing. *Some corrections have been made.*
2. Reference no. 7 is a systematic review protocol. It is however wrongly represented as evidence of effectiveness of health care provider’s advice. *Corrected*
3. There is a reference to a fact that “Physicians lack education in non-pharmaceutical methods, low status and lack of attitude.” (page 4, first paragraph). This is unsubstantiated. Physicians do have training on physical activity, and other non-pharmacological methods of treatment. This can be seen in the medical curriculum.

*I have made the correction*.

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**Reviewer 2:**

1. Title suggests universal recommendation of physical activity to all patients; however, study only focuses on physical activity amongst people with diabetes.

*Response: the study tries to find about advice to all people who have responded to the question patients “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?”.diabetes is prevalent in almost 20% of the population and there is substantial evidence on health promoting benefits of exercise in these patients, hence the study brings out an analysis on the subject*.

1. The study addresses an important ethical responsibility of healthcare providers on advising patients about the benefits of physical activity however, the study does not seem to arrive at a logical conclusion.

*Response: we are just trying to bring the attention to the aforesaid issue, a significant number of studies have been cited to bring the point home. It should sound logical that in a population where this large population is suffering from a very controllable condition, advice to physical activity should be a choice given to the patients before starting the treatment.*

1. The study has mentioned that this is set in the context of low-and middle-income countries however, it is restricted to discussion about results from a single dataset from Kerala. The conclusions must be restricted to the setting to which they apply and not be generalised to LMICs as a whole.

*Response: It is true that the study is only about one setting and cannot be generalised to the whole low and middle income country scenario, but the study has not recommended such a generalisation. I have rephrased the sentence in the article.*

1. The study may be appropriate for the journal and the approach is fresh and may have influenced practice if it had been able to lend more credible evidence towards the conclusions reached.

*Response: It is true that there is less evidence on the topic and so the area suffers. It is difficult to find provider-based studies and also to build evidence*.

I have expanded the discussion.

1. There is no specific data or results presented from current study or other studies to generalise results to low-and-middle-income countries. The presentation of results from secondary analysis of the dataset does not justify the conclusions reached such as ‘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’.

*Response: Sadly, there are very few studies from low and middle income countries on provider behaviour (one from India and Bangladesh each). The studies which attempt to examine the patient’s self management behaviours in diabetes are abundant, if they can act as proxy for the compliance or adherence to such behaviours. I have modified the sentence.*

1. The background is vague. Providing health education, counselling regarding benefits of diet and physical activity would constitute primary prevention and cannot be called secondary prevention as it is not leading to early diagnosis and treatment of diabetes itself.

*Exercise, diet and medication are the three pillars of treatment in diabetes now. It is not restricted to prevention of diabetes but also in controlling blood glucose levels. Regular exercise is associated with reductions in insulin requirements for patients with type 2 diabetes. Moreover, improvements in HbA1c with a combination of aerobic and resistance exercise are associated with reductions in markers of adiposity and inflammation (WC, BMI, hs-CRP) (Riddell et al., 2013,**Armstrong and Sigal, 2015)*

*) I have modified the statement in the article.*

1. The results do not substantiate the conclusions and the discussion needs to be more robust. There is evidence to say that physicians/ healthcare providers are not providing advice regarding physical activity to persons with diabetes. However, the discussion on why it is the ethical responsibility of healthcare providers to provide such awareness to those with diabetes needs more enriching and logical discussion.

*Discussion expanded on given suggestions*

**Specific comments;**

1. There is a need to use standard abbreviations and abbreviations are required in brackets each time an expansion is being used for the first time in the manuscript. *Corrected*
2. References within the manuscript are numbered in order of appearance in the text which is correct, but are arranged alphabetically. Please make the list compatible with appearance in the text. Unable to check authenticity of the statements and other studies mentioned due to this. *Corrected*
3. In Para 4 of the Discussion section: there is a repeat of the results and a discrepancy in the percentage of adults who had been advised physical activity in results and discussion. *Corrected*  
     
     
    To the editor,

I have made the corrections as pointed out by the reviewers. I have tried to include all the points made as comments in the article in addition to explaining my approach towards that comment. I hope this improves the paper. In case the reviewers feel there are additional changes required, please let me know, I am ready to work on them.

Thanks & regards,

Shalini