LETTER

Comment: Prevalence of Hypercholesterolemia and Awareness of Risk Factors, Prevention and Management Among Adults [Letter]

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Dear editor

The results of a study of the factors that influence the occurrence of hypercholesterolemia in adults have attracted our attention. It was found that there were 7 factors, namely: age, smoking use, alcohol use, fruit consumption, type of oil most often used, body mass index and physical activity; while 3 other factors, namely sex, frequency of drinking alcohol and vegetable consumption were not proven to be factors that influence the occurrence of hypercholesterolemia.[1]

These findings are very important for efforts to improve adult health in Ethiopia, especially related to efforts to reduce the prevalence of hypercholesterolemia. However, are we sure that the last three factors do not affect the occurrence of hypercholesterolemia? Is the frequency of drinking alcohol and consumption of vegetables not related to hypercholesterolemia? Is it possible that these factors affect hypercholesterolemia indirectly?

Researchers used regression analysis, so it is assumed that the effects of factors were tested simultaneously on the occurrence of hypercholesterolemia. Logically, several factors may have an indirect effect on the occurrence of hypercholesterolemia, through intermediate factors, for example vegetable consumption affects physical activity; then physical activity affects the occurrence of hypercholesterolemia. We illustrate a framework of inter-factor relationships that is still open for editing (Figure 1), which can be used to explain the direct and indirect effects of each factor. In this case, the influence of each factor is different, in the sense that some are risk factors, such as alcohol consumption and
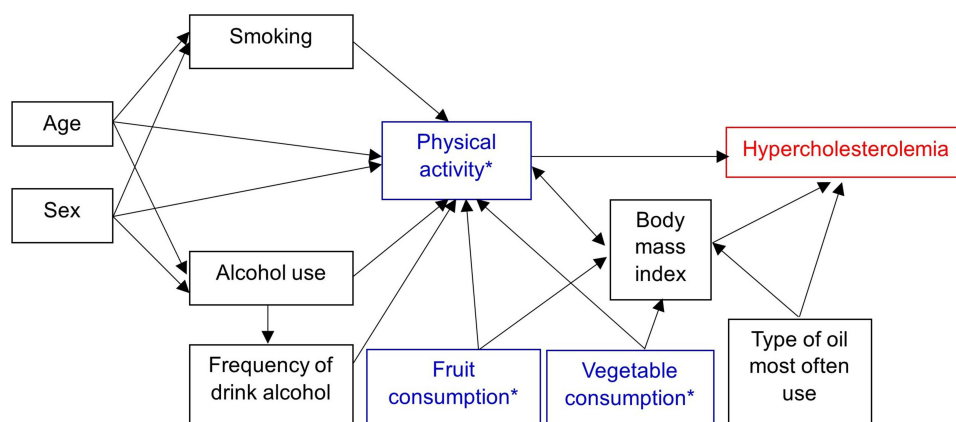

Figure 1 Framework of the effect of each factor on hypercholesterolemia.
Note: *Protective factor.

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smoking behavior; however, there are also protective factors, such as consumption of vegetables and fruit. Therefore in Figure 1, the appearance of protective factors is distinguished from risk factors.

Referring to similar problems on different objects,[2–4] we suggest that further analysis be carried out to prove the direct and indirect effects of each factor using Smart-PLS.[5] Furthermore, we suggest that the results of this further analysis can be published in the same journal; and the new findings obtained can certainly be one of the considerations for relevant stakeholders, in order to reduce the prevalence of hypercholesterolemia in Ethiopia.

Disclosure

The authors report no conflicts of interest in this communication.

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