Letter to the Editor

Comment on: Lifestyle predictors of obese and non-obese patients with nonalcoholic fatty liver disease: A cross-sectional study

Keywords: Methodological issues Cross-sectional study Prediction

Dear Editor-in-Chief,

We studied the paper entitled ’Lifestyle predictors of obese and non-obese patients with nonalcoholic fatty liver disease: A cross-sectional study’ written by Joo Hee Kwak et al. [1], which was published in Clinical Nutrition in August 2017. The aim of the study was to investigate nutrition components and behavioral differences between non-obese and obese patients with NAFLD. The results of this study showed high carbohydrate energy ratio and low moderate-level physical activity in non-obese subjects, and low moderate-level physical activity in obese subjects were good predictors for the development NAFLD [1]. However, although this research was valuable and the results are interesting, there are some methodological issues which should be referred to them.

Firstly, regardless of the results obtained from the model, it should be explained that accurate predictors or determinants of a dependent variable cannot be reliably identified by a cross-sectional study because predictors must be identified based on cohort studies [2–4]. In other words, predictive or casual inferences cannot be made from cross-sectional studies because of the associations between variables measured at the same time point in such studies. Without the temporality assumption (the dependent variable has to occur after the independent variable) there is no way of determining whether a factor is a risk factor, is predictive/causal, or is a consequence of the outcome [5]. In other words, the longitudinal studies are essential for determination of independent predictors of outcome.

Secondly, considering the predictive performance of lifestyle predictors of obese and non-obese patients on nonalcoholic fatty liver disease is an optimistic interpretation. The internal and external validation of the prediction model must be done through bootstrapping and split-validation, respectively [6]. Therefore, according to the above explanation, it is necessary considering to this point in interpretation of results of this study for readers.

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Conflicts of interest

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References


Fatemeh Khosravi Shadmani
Department of Epidemiology, School of Public Health, Shahid Beheshti University of Medical Sciences, Tehran, Iran

Salman Khazaee
Department of Epidemiology, School of Public Health, Hamadan University of Medical Sciences, Hamadan, Iran

Shiva Mansouri Hanis
School of Public Health, Dezful University of Medical Sciences, Dezful, Iran

Kamyar Mansori*
Social Determinants of Health Research Center, Kurdistan University of Medical Sciences, Sanandaj, Iran

* Corresponding author. Social Determinants of Health Research Center, Kurdistan University of Medical Sciences, Sanandaj, Iran.

E-mail address: kamyarmansori@yahoo.com (K. Mansori).

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