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Risk Factors and Prediction Nomogram of Cognitive Frailty with Diabetes in the Elderly [Letter]

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Dear editor

Many clinical risk factors have a bearing on the cognitive dysfunction of the elderly with diabetes mellitus. Recently, Deng et al¹ published their research entitled "Risk Factors and Prediction Nomogram of Cognitive Frailty with Diabetes in the Elderly" in Diabetes Metabolic Syndrome and Obesity-Targets and Therapy. Although Suyanto et al² have provided feedback on this article, further comment should still be helpful for accurate information to the real-world clinical practice. Anyhow, we still want to express our admiration and gratitude for the research work done by the Deng Y team.

The current study delved into the influencing factors of cognitive frailty in elderly patients with diabetes mellitus and developed a nomogram for its assessment.¹ The results showed that 27.6% of elderly participants experienced cognitive frailty. Additionally, age, albumin levels, calf circumference, duration of diabetes, intellectual activity, and depressive state were identified as independent risk factors for cognitive frailty in elderly with diabetes mellitus. The training and validation cohorts demonstrated area under curve (AUC) values of 0.866 and 0.821, respectively. They concluded that the nomogram model exhibited good sensitivity and specificity, which provides a reliable tool for assessing the risk of cognitive frailty in old individuals with diabetes mellitus.

We have a few reservations for fully agreeing to the conclusions stated in the article for the following reasons. The reasons are as follows: (1) more evaluation data on the quality of respiratory and sleep, physical activity, and skeletal muscle mass need to be evaluated. Actually, these factors in the elderly are closely associated with cognitive performance;^{3,4} (2) there is a lack of assessment data on participants' thyroid function, bone mineral density (BMD), and blood vitamin D levels, which play a crucial role in cognitive frailty in the elderly with diabetes mellitus;⁵ and (3) the nature defect of cross-sectional studies limits the clinical application of the findings of this study. Therefore, it is necessary to verify the reliability of the predictive model through a longitudinal clinical cohort study. Otherwise, the research results will convey unclear information to clinical practice.

Although this study is only of preliminary nature with futuristic directionality for clinical utility, we still want to congratulate the team on their work.

Disclosure

The authors report no conflicts of interest in this communication.

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^{1.} Deng Y, Li N, Wang Y, et al. Risk factors and prediction nomogram of cognitive frailty with diabetes in the elderly. *Diabetes Metab Syndr Obe*. 2023;16:3175–3185. doi:10.2147/DMSO.S426315

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