



## Letter to the Editor

### Milk intake and depressive symptom: a risk assessment

Li *et al.*<sup>(1)</sup> conducted a cross-sectional study on the associations of total protein intake and protein sources with the risk of depressive symptoms, which was assessed by a nine-item Patient Health Questionnaire. Adjusted OR of the second and the third highest quartiles of protein intake from milk and milk products for depressive symptoms were 0.34 (95 % CI 0.17, 0.68). Especially, adjusted OR of high milk intake against the no/seldom milk intake in repeated and baseline measurements for rectal cancer were 0.37 (95 % CI 0.24, 0.59) and 0.61 (95 % CI 0.41, 0.93), respectively. There was a significant dose–response relationship, and I have some concerns about their study.

Sun *et al.*<sup>(2)</sup> conducted a cross-sectional study to evaluate the associations between different types of milk products and depressive symptoms. They also used Patient Health Questionnaire, and logistic regression model was also applied for the analysis. Adjusted OR of the second and the third highest intakes of skimmed milk and the third higher intake of milk desserts for depressive symptoms were 0.46 (95 % CI 0.29, 0.75), 0.48 (95 % CI 0.27, 0.85) and 0.70 (95 % CI 0.55, 0.88), respectively. In contrast, adjusted OR of the highest, the second and the third highest intakes of whole milk against the lowest group for depressive symptoms were 1.55 (95 % CI 1.11, 2.16), 1.70 (95 % CI 1.15, 2.50) and 1.61 (95 % CI 1.05, 2.46), respectively. This means that different types of milk products have different associations with depressive symptoms, and dose–response relationship was not observed.

Willett & Ludwig<sup>(3)</sup> recently reviewed the association between milk intake and physical health, and the effect of milk on cognitive impairment was also reviewed with special reference to frailty, sarcopenia, cognitive impairment and ageing<sup>(4)</sup>. There is a close relationship between depressive symptoms, physical health and ageing. Although conflicting and inconsistent associations were observed<sup>(5)</sup>, a meta-analysis with

high-quality studies is needed to specify the quantitative association between milk intake and depressive symptoms.

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