

Letter to the Editor

Coffee/tea consumption and depression: a risk assessment

Elstgeest *et al.* conducted a prospective study to investigate the effects of food intake on subsequent depressive symptoms⁽¹⁾. A questionnaire survey was adopted with repeated measurements of intakes of thirteen food groups and depressive symptoms. Fish intake was inversely, and sweet food intake was positively, associated with subsequent depressive symptoms. In contrast, fruit, nuts and legumes, potatoes, wholegrain bread, olive oil, sugar-sweetened beverages, and coffee and tea showed no significant association. I have two concerns about their study with special reference to coffee/tea consumption.

First, the authors also cited a systematic review on the relationship. Concerning some meta-analyses, Wang *et al.* reviewed the association between coffee and caffeine consumption and depression, and the pooled relative risk (RR) of coffee consumption by setting the lowest level of consumption as a control for depression was 0.757 (95 % CI 0.624, 0.917)⁽²⁾. Grosso *et al.* also reviewed the association between coffee, tea, caffeine and the risk of depression. The pooled RR of coffee consumption against the lower level of consumption for depression was 0.76 (95 % CI 0.64, 0.91)⁽³⁾. Although these systematic reviews by meta-analyses reported significant inverse relationships between tea/coffee consumption and depression, such relationships may not be apparent in every individual study, partly because of different levels of tea/coffee consumption and different characteristics of the population in each study. A trend of association between these beverages and depression can be clarified by a meta-analysis, and reasons for the failure in presenting significant associations in some original studies should be specified by comprehensive studies.

Second, Hintikka *et al.* investigated the association between tea consumption and depressive symptoms⁽⁴⁾. The adjusted OR of daily tea consumption for the risk of a low level of depressive symptoms was 0.47 (95 % CI 0.27, 0.83). Niu *et al.* investigated the relations between green tea consumption and depressive symptoms in the elderly⁽⁵⁾. The adjusted OR of higher green tea consumption for mild and severe depressive symptoms were 0.96 (95 % CI 0.66, 1.42) and 0.56 (95 % CI 0.39, 0.81), respectively. These two reports were cross-sectional in design, and the underlying mechanism cannot be specified. The dose–response relationship should be verified by further studies.

Anyway, comprehensive prospective studies with appropriate adjustments are needed to confirm coffee/tea consumption and subsequent depressive symptoms, and the same situation exists to specify the effect of food intake on subsequent depressive symptoms.

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doi:[10.1017/S0007114519001387](https://doi.org/10.1017/S0007114519001387)

Acknowledgements

The author has indicated no financial support.

There is no conflict of interest in this study.

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