Reviewer’s report
Title: Empirically derived dietary patterns and constipation among a middle-aged population from China, 2016-2018

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Reviewer: Blanca Serrano-Falcon

Reviewer's report:

Congratulations for this nice work that might help to medical doctor and specially dietitians to understand the link between a functional problem and diet.

I think it’s well written and is in general easy to understand. However, constipation is a multifactorial disease in which diet pattern plays an important role but not the only one. Some relevant factors should be assess in studies about functional constipation: concomitant disease, organic cause of constipation (if possible), concomitant drugs, physical activity and other habits like diary amount of water.

I will specify now some other comments:

52: Risk factors for constipation are poorly explained. The Word "factors " is twice written.

81: Why were participants with family history of constipation excluded? Since constipation is a multifactorial problem other causes like family history of colorectal cancer should have been excluded.

157: "Participants in the fourth quartile of the traditional southern Chinese dietary pattern were older". Who were older? Those in the highest quartile on the traditional southern Chinese dietary pattern or in the fourth quartile? I have found this sentence difficult to understand.

197: "Finally, the possible explanation of preventive effect of this pattern on constipation may contribute the higher intake of eggs". What is the proposal physiopathological mechanism to explain this fact?
202: I do agree with the complex pattern of the Western diet defined in this article. Have you assessed the differences according to the different amount of fiber? Lactose or sorbitol malabsorption could also explain the absence of constipation in those with high intake of snacks and fast foods, as well as higher CCK secretion (secondary to fat) that induces gastrocolic reflex.

225: "An earlier research by Towers et al. 225 reported that constipation is closely correlated with intake of energy": This study was conducted in the elderly, which could explain some differences.

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