Reviewers report

Title: Association between diet quality, dietary patterns and cardiometabolic health in Australian adults: a cross-sectional study

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Reviewer: Jun S Lai

Reviewers report:

This is a well written paper. The RRR is a novel method to derive dietary patterns and the findings could interest readers who are exploring this method. However, the interpretation of the RRR derived dietary pattern remains a challenge.

1. It is not clear whether DP2 is healthy or unhealthy (e.g. high in fibre density and fruits, but also high in sugar and non-wholegrain cereals), which may explain why the associations with outcomes are conflicting. Although the authors have briefly explained; the Discussion could benefit from more in-depth discussion on what could cause the conflicting findings, with possible mention of the limitation of the RRR method.

2. The RRR derived DP is rather specific e.g. DP1 suggest higher intake of apples, pears and wholegrain bread, which makes translation to practical dietary recommendations rather difficult. Could the authors elaborate on the public health relevance of the derived DPs?

3. While greater adherence to DGI and DP1 were associated with lower BMI and WC, the association between DGI and plasma glucose was not replicated with DP1. Detailed discussion on the differences between DGI and DP1 would be helpful.

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