Reviewer’s report

Title: Associations between dietary patterns and blood pressure in a sample of Australian adults

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Reviewer: PH Lin

Reviewer's report:

This manuscript describes the results of a cross-sectional analysis of the association of dietary intakes and blood pressure among 251 participants before starting a dietary intervention trial. The manuscript is relatively well prepared. There are many unclear points in the manuscript and they are listed below for the authors' consideration.

1. What were the timings of BP measurement and diet assessment arranged for each participant? Were the two diet recalls completed during the same week when the BP readings were collected?
2. Page 7, lines 2-3, how much impact is the omission of discretionary salt intake may have on the true total sodium intake in this population?
3. Page 7, lines 24-25, unclear how the surveys of physical activities from two measures were used in the analysis.
4. Table 2, in the factors for dietary pattern, may be helpful to explain briefly what "take-away" and "unprocessed cereals" includes. Does "unprocessed cereals" mean whole grains?
5. Tables 4 and 5, the terms "Traditional Australian diet" "Convenience diet" "Modern diet" are not mentioned anywhere in the text.
6. It's not obvious that dietary pattern 2 would be high in animal fats, meat as the authors described in lines 17-19 of page 15. Unless the group "meat, egg & poultry dishes" are in nature higher in animal fats. On the contrary, dietary pattern 1, with the higher loading factor "Meats, poultry and egg" seem to be more likely to be high in animal fats and meats.
7. Page 17, lines 11-12, unclear what this sentence is referring to: "Dietary pattern 3 was the only dietary pattern where both the energy adjusted associations were significant."
8. Page 18, lines 3-4, it's also possible that the indication is of poor health choices, not necessarily of health consciousness.
9. Page 18, line 18, some researchers would disagree with this statement. Diet recall and food-frequency capture different aspects of dietary intake and can both serve well in different research settings.
10. Page 18, line 24, there are some redundant words.
11. Page 19, lines 13-16, it may need some caution as to how the results are interpreted. Some of the food groups included in pattern 2 are commonly considered to be healthy for BP management, such as whole grains (if that's what unprocessed cereals mean), seed sand nuts. The key finding of this study is the nutrients (Na, K, Na/K) profile of the dietary patterns and their association with BP. How the different food groups make up a whole dietary pattern into a BP friendly nutrient profile or not can vary drastically depending on the proportion and type of foods within each food group. This point should be considered when making interpretation of the results.
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