Author’s response to reviews

Title: Awareness of Energy Drink Intake Guidelines and Associated Consumption Practices: A Cross-Sectional Study

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Author’s response to reviews:

Dear Dr Ditre,

Please find attached the revisions for the manuscript for submission in BMC Public Health (PUBH-D-15-00695): "Awareness of Energy Drink Intake Guidelines and Associated Consumption Practices: A Cross-Sectional Study”.

We are indebted to the peer reviewers and the editorial group, who have made a number of very helpful suggestions in relation to this manuscript. On the basis of this feedback we have carefully revised the manuscript and believe that the paper is greatly improved as a result. The reviewers have made a number of general comments in relation to the manuscript. As a consequence, we have used the ‘track changes’ function to identify any changes to, or deletions from, the text. To facilitate reviewing we will provide a tracked and untracked document in this submission (page numbers for changes are in reference to the tracked document; please let me know if you would prefer an alternative format).

REVIEWER(S)' COMMENTS TO AUTHOR:

Reviewer #1:

This paper is well-written and discusses a very interesting topic, which is the associations between ED guideline knowledge and ED intake. The sample size is also quite large, which
allows for good generalizability of the results. This reviewer only has a few minor comments that should be addressed:

1. Abstract: please replace the word "take" with "intake".

We thank the reviewer for noting this error. We have made this correction.

2. Could information on caffeine intake for combined ED and non-ED beverages please be included in Table 3?

Unfortunately we are unable to include this estimate, as participants were asked to report their typical intake of caffeinated products excluded energy drinks. Whilst frequency of ED intake was reported, the majority of participants reported using this on an infrequent basis and thus we cannot infer that this use would form part of their estimate of typical daily caffeine intake.

3. The last paragraph of the discussion section is similar to a conclusion; could the authors please combine this paragraph with the conclusion?

We thank the reviewer for their feedback. We have made this adjustment.

Reviewer #2:

This is my first review of manuscript PUBH-D-15-00695; "Awareness of Energy Drink Intake Guidelines and Associated Consumption Practices: A Cross-Sectional Study".

The current study examined associations between awareness of Australian energy drink guidelines with the frequency and quantity of (1) energy drink consumption, and (2) consumption of energy drinks mixed with alcohol. The study utilized self-reported cross-sectional data obtained using a non-random, online sample from New South Wales, Australia. Results indicated that a minority of participants reported awareness of the Australian energy drink (ED) guidelines. Awareness was higher among participants reporting higher frequency of ED consumption. Among participants reporting past year ED consumption, accurate reporting of the intake guidelines was associated with greater ED consumption and consumption exceeding the guidelines. Additionally, being aware of the intake guidelines was associated with greater odds of exceeding these guidelines in the average instance of ED consumption, but was not associated with exceeding the guidelines during the average instance of AmED consumption.

This paper presents cross-sectional associations between awareness of ED intake guidelines with ED and AmED consumption. The current study has a number of strengths including being the first to document awareness of ED guidelines among Australians and use of a large participant sample. Findings represent a necessary and important step in better understanding relations between ED/AmED guidelines and actual consumption of both EDs and AmEDs. The study has a number of positive aspects yet a few points might be worth considering.

Primary concerns:
1. The authors note that covariates were chosen for inclusion in the regression models based on previous research indicating associations with ED consumption. However, the authors do not comment on these relationships among the current sample. It might be helpful to characterize how the current sample compares to previous samples with regard to these associations. It would also be helpful to know if the models produced similar outcomes without the covariates.

There is an extensive body of literature examining the correlates of ED consumption, as overviewed in the justification for covariate inclusion in the data analysis section. Consequently, we believe that we have addressed the above query via the more sophisticated multivariate analyses conducted in this paper, identifying whether demographic variables remain significant after controlling for other potential associations. We would also note that the first step of the model does not include the demographic covariates and thus addresses the final point regarding the association when covariates are not accounted for.

2. The manuscript was a bit difficult to follow in places. First, a portion of the introduction discusses cigarette/tobacco packaging (lines 73-83). These substances were not analyzed in the current set of analyses and have their own set of unique use characteristics and history with health advisory statements. Characterizing the research on advisory statements and warning labels more broadly and quickly focusing on alcohol consumption and/or energy drink consumption might result in a more compelling and focused paper. Secondly, the first paragraph of the discussion (lines 276-283) would fit better in an introduction section and notes a number of factors not tested in the current study (i.e., motivation for use, characteristics of health advisory statements). Simply removing this paragraph might result in a more cohesive and persuasive discussion of current findings.

We agree with the reviewer that tobacco and alcohol have their own unique use characteristics and history of health advisory statements. However, this paper is the first to explore guideline awareness for energy drink consumption. Consequently, we have no existing research to draw on, and are in the position of having to provide some review of the evidence for/against the efficacy of these advisory statements so as to justify the study of guideline awareness based on advisory statements. As there are only four sentences covering the literature regarding other products, we would ask to keep this information in order to provide sufficient context for the reader.

In line with the reviewer’s suggestion, we have moved part of the first paragraph of the discussion to the introduction section.

Secondary concerns:

3. The authors might consider reporting their a-priori hypotheses. If the authors did not have any such hypotheses, it would help to note this in the introduction.

We thank the reviewer for this comment. We have now identified in the introduction that the study is exploratory.
4. The authors might usefully comment on how their sample from New South Wales might generalize (or not) to other areas of Australia.

As noted in the method section, the aim of the study was “to deliberately and non-randomly capture consumers of ED in New South Wales” aged 16 years or older.

We have commented on this strategy in the discussion:

“We also advocate for research which assesses guideline awareness in the broader community; the sample was not representative as participants were self-selected as part of a strategic recruitment plan to target AmED consumers. For example, 58% of the current sample were male and median age was 24, whereas in NSW in June 2013 the sex distribution was near-equal and median age was 38 years [42]. Critically, we believe the next step is to undertake longitudinal research using consumers in the community to explore how an individual consumer transitions from lack of knowledge regarding the guidelines to a state of awareness and subsequently to behavioural compliance.”

5. Consistent use of labeling would improve continuity throughout the paper. Specifically, changing "i"/"ii" to "1" and "2" (Lines 334-336), would improve consistency with the labeling in the introduction section.

We have made this correction.

6. In the discussion section, the authors label Aim 3 and Aim 4 but do not specify Aim 1 or Aim 2 (Lines 151-155). Including this information would likely improve continuity and readability.

We have included reference to Aim 1 and Aim 2 alongside reference to Aim 3 and 4 in the data analysis section, as based on the line number we believe the reviewer was referring to this section.

7. Authors mention the possibility of low statistical power affecting their results (Lines 220-221), but do not report power calculations for the current sample. It might be helpful to either note this in the limitations section or omit any mention this possibility, if it is not that important.

We have included the following statement in the discussion:

“Direct comparison of ‘over-estimators’ with other guideline awareness group was not possible due to small group size resulting in low statistical power.”

8. Swapping out the term "fortnight" for "two weeks" throughout the paper and tables would improve readability for a broad audience.

We have made this correction throughout the manuscript.
Editorial Requests

Please note that all submissions to BMC Public Health must comply with our editorial policies. Please read the following information and revise your manuscript as necessary. If your manuscript does not adhere to our editorial requirements this will cause a delay whilst the issue is addressed. Failure to adhere to our policies may result in rejection of your manuscript.

Ethics:

If your study involves humans, human data or animals, then your article should contain an ethics statement which includes the name of the committee that approved your study. If ethics was not required for your study, then this should be clearly stated and a rationale provided.

We would refer to the following sentence in the manuscript:

“Ethics approval was granted by the Deakin University Human Ethics Advisory Group (#2012-257).”

Consent:

If your article is a prospective study involving human participants then your article should include a statement detailing consent for participation. If individual clinical data is presented in your article, then you must clarify whether consent for publication of these data was obtained.

We have included the former part of the following statement:

“Participants provided informed consent and survey completion took 15-30 minutes.”

Availability of supporting data:

BioMed Central strongly encourages all data sets on which the conclusions of the paper rely be either deposited in publicly available repositories (where available and appropriate) or presented in the main papers or additional supporting files, in machine-readable format whenever possible. Authors must include an Availability of Data and Materials section in their article detailing where the data supporting their findings can be found. The Accession Numbers of any nucleic acid sequences, protein sequences or atomic coordinates cited in the manuscript must be provided and include the corresponding database name.

We have included the following statement:

“Availability of Data and Measures

The survey instrument and data can be made available on request of the corresponding author.”
Authors Contributions:

Your 'Authors Contributions' section must detail the individual contribution for each individual author listed on your manuscript.

The following statement was included:

“All authors were responsible for study design. ND and PM were responsible for data collection and cleaning. AP and RB conceptualised the current manuscript, conducted analyses and prepared the initial draft of the manuscript. All authors contributed to the manuscript revision and final draft preparation.”

We would thank the Editor and both reviewers for their support for this manuscript. We hope that the amendments are in line with the suggestions, and adequately address the concerns raised.

Kind regards,

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