Author's response to reviews

Title: Measuring Perceived Effects of Drinking an Extract of Basidiomycetes Agaricus blazei Murill: A Survey of Japanese Consumers with Cancer

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Author's response to reviews: see over
To the Editor:

Thank you for the additional reviews of our manuscript. We appreciate the interest you have shown in our work. We have considered the thoughtful criticisms and respond below. We have revised the manuscript accordingly. We hope these changes adequately address the reviewers’ concerns.

Reviewer 1.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Criticism: It is recommended that the authors clearly acknowledge their use of a 3-point response set as a limitation to their study, and recommend the use of response sets with a higher number of response categories in future studies that aim at performing similar multivariate analyses.

Response: We appreciate the concern of the reviewer about the difficult issue of the use of the Likert ordinal response scale as interval data in aggregating multiple items in summary scales. While no Likert scale has properties that fully address the reviewer’s concerns, our use of 3-item response sets provides more granular data that approximates the desired properties less well than response sets with more items. We have revised the final paragraph in the Discussion section to make this point:

“Our use of a 3-item Likert response set may be improved by using a 5-item scale, which would produce less granular data with better statistical properties for psychometric analyses.”

Reviewer 2.

Minor Essential Revisions

Criticism: The type of factor analysis used should be identified in the methods section.

Response: We used is a principal components factor analysis with orthogonal rotation. While we could have used an oblique rotation, which assumes that the resulting factors will be correlated, or a principal factor analysis with prior estimates of communality, we feel that our approach better serves our goal of identifying a minimum set of discrete but informative dimensions that efficiently explain variance in the correlations of the 17 items, and that would be verifiable in a subsequent evaluation of the multi-trait/multi-attribute matrix (defining internally consistent scales with no item-scale overlap).

We have added this information to the manuscript. The text now reads:

“In order to examine patterns in perceptions of the effects we conducted a principal components factor analysis with orthogonal rotation with the 17 individual effects
Criticism: I did not understand the explanation of the way in which the scores were calculated (results section, paragraph 4, last sentence) and I could not reconcile this scoring system with Table 3. Please clarify.

Response: We apologize for the confusion. Table 3 does not include items that were included in the construction of the scales. They had a different response scale and thus we did not include them in our conservative analysis of these data. We have revised the manuscript as follows:

“As a result, we defined two conceptually and empirically distinct, and internally consistent (Cronbach’s alpha: Relief of Symptoms, a = .74; Functional Well-Being, a = .91) summary scales of Sen-Sei-Ro study participants’ perceptions of its effects relative to their cancer treatment. We present the useful items remaining after this analysis in Table 4.”

Criticism: The results clearly indicate that the modal response was 'no effect'. This seems to be an important finding which needs to be discussed.

Response: The reviewer correctly identified a confusing sentence in our text. The word “modal,” while accurate for the individual items, is confusing in the context of a summary score that algebraically sums the responses. The positive mean scores throughout Table 5 indicate that the responses tended strongly toward favorable effects, which is strongly evident in the responses to Table 3. Nevertheless, most patients indicated “no effect” for most specific items. We hope our revised text conveys this information:

“Scale scores indicate that study participants reported generally favorable effects as indicated by the positive mean scores, although the majority of patients reported no effect either way on most individual items, and net scores of zero were reported by 26% and 37% for Functional Well-Being and Relief of Symptoms, respectively.”

Discretionary Revisions

Criticism: The abstract is clear and informative but the conclusion (which is repeated in the overall conclusion) implies that favourable effects were generally found among the cancer patients surveyed rather than the respondents (33%). I think this could be clarified by using the term respondents instead of consumers in the conclusions.

Response: We have amended the manuscript to address this point. The sentence, identical in the Abstract and Conclusion, now reads:

“Respondents to our survey of Sen-Sei-Ro consumers with cancer reported favorable perceived effects from its use.”

Criticism: The limitations associated with a 33% response rate should be discussed. It is known that responders tend to be different from non-responders.
Response: We have amended the first paragraph of the discussion to address this point.

“A survey of people currently using the product by choice produces a bias toward reported benefit, which our results reflect, and the relatively low 33% survey response rate probably increases the bias.”

Criticism: I would have liked more specific information, in the discussion, about how the instrument would be further developed.

Response: We have amended the final paragraph of the Discussion section to address this point.

“We plan to use these results to inform a series of focus groups to refine and supplement these items, pilot test additional items, subject the revised instrument to further validation studies and to use the final validated instrument in randomized trials of the efficacy of Sen-Sei-Ro and other CAM substances with putative health properties in cancer patients, if adequate research funding is available.”

Criticism: Finally it is not clear, to me, whether the funding body for this work is also the manufacturer of the product under consideration. This needs to be clarified.

Response: We have amended the Acknowledgement to address this point.

“This work was supported by Kyowa-S.S.I., Tokyo, Japan, which manufactures Sen-Sei-Ro.”

Sincerely,

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