Author’s response to reviews

Title: The effect of a portion size intervention on French fries consumption, plate waste, satiety and compensatory caloric intake: an on-campus restaurant experiment

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Reviewer #1: First, the writing is in need of serious editing. There are numerous instances where the wrong word is used (e.g., line 21 enlargement vs. increase; lines 21-22 "at the end of the day" should be daily; line 59: "approached" should be "included"), the writing is colloquial rather than scientific (e.g., line 22: "it could be argued" and line 48 "one study even showed that"), and numerous statements do not make sense (e.g., lines 46-48; lines 50-51; lines 54-56). The format of references is incorrect for this journal, as is the method of citation throughout the text. Second, the major premise of this study, "to assess the effect of a reduction in portion size on level of satiety and caloric intake during the afternoon" would only make sense if the authors accurately measured food intake of participants under all experimental conditions. The authors' reliance of self-reported measures of food intake call into question the legitimacy of their conclusions. We thank the reviewer for giving useful comments. We have put in the necessary efforts to write more scientifically, by changing sentences as suggested by the reviewer. Statements were corrected where needed. Additionally, the reference format was adjusted. Furthermore, we clarified the paper to show that the food intake was measured in a reliable way. Abstract: Background: Work on making more concise and less colloquial. Check wording and grammar. *Line 21: enlargement: wrong word This has been changed to ‘increase’ (p. 1, line 20).*Lines 21-22: remove phrase "it is documented" as it's totally unnecessary; phrase "end of the day" incorrect; do you mean "daily?" *Line 22: word "protect" awkward here; write: "reducing portion size may reduce intake of excess calories." *Line 22: remove "hence it could be argued." We followed the reviewer’s suggestions
concerning the three comments on lines 21-22 and changed this into (p. 1, line 21-22): ‘Larger portions induce higher daily energy intake, so reducing portion size may reduce intake of excess calories.’ Methods: Check wording and grammar. Provide specific, clear information about methods.*Line 28: through. . .by should be changed to read "by. . .with." This has been changed accordingly (p. 1, line 29).*Describe type of study and conditions (baseline, intervention, etc.), the number of days for each condition, and how many people participated in the study. We modified the methods section of the abstract as follows (p. 1-2, line 27-35): ‘Methods: The study took place over a two-time (i.e. baseline and intervention week) four-day period (Tuesday-Friday) in the on-campus restaurant where ± 1,200 meals are served every day. French fries’ portions were reduced by 20% by replacing the usual porcelain bowl served during the baseline week (±200g) with smaller volume paper bags during the intervention week (±159g) in a pre-post real-life experiment. French fries consumption and plate waste were measured in 2056 consumers at baseline and 2175 consumers at intervention. Additionally, interviews were conducted directly after lunch and again between 4-6p.m. on the same day to assess satiety and caloric intake at pre and post in a small subsample of both French fries consumers (n=19) and non-French fries consumers (n=14). Post-intervention, the same subsample was interviewed about their perception of the portion size reduction (n=28).’ Results:*Results are confusing and not well explained. For example, there was mention of consumers and non-consumers in the results. Methods did not specify that there were two groups studied. As we modified the methods’ section (cfr. supra), the results reported in the abstract should be more clear now. Yet, we have added some extra information to clarify this subsection (p. 2, lines 36-41): ‘Total French fries intake decreased by 9.1%, and total plate waste decreased by 66.4%. No differences were found in satiety or caloric intake between baseline and intervention week among the French fries’ consumers. The majority (n=24, 86%) of French fries’ consumers noticed the reduction in portion size during the intervention. Although most participants (n=19, 68%) perceived the reduced portion size as sufficient, only a minority of participants (n=9, 32%) indicated post-intervention that they would agree with a permanent implementation.*Was the intake and plate waste changes noted among all consumers or only a small subset of consumers? Please provide numbers as well as percentages (lines 35 and 36.) As we made changes to the abstract, it should be more clear now that the intake and plate waste was noted among all French fries consumers. The smaller subset of consumers was only used to assess satiety and caloric intake. *The word "sufficient" is subjective and has no meaning.‘Sufficient’ was in our study used in a subjective way, namely the perception of the respondents on the reduced portion. To make this more clear in the paper, we changed the sentence as follows (p. 2, lines 39-41): ‘Although most participants (n=19, 68%) perceived the reduced portion size as sufficient, only a minority of participants (n=9, 32%) indicated post-intervention that they would agree with a permanent implementation.’ Conclusion:*Your statement that changing portion size may lead to a more balanced/healthier food intake is beyond the scope of this study and should not be made. We understand that the use of the terms ‘more balanced/healthier food intake’ did not quite match with what can be concluded from this study. Therefore, we changed our conclusion into (p. 2, lines 42-43): ‘Reducing portion size may lead to reduced caloric intake, without changing perceived levels of satiety.’ Background: needs extensive revision for clarity and correctness. Work on making information in this section more concise, accurate and less colloquial.*Line 42: word "unique" is not correct here; K-12 schools also provide settings for health initiatives*Lines 42-44: run on sentence—please make more concise As suggested by the reviewer, we have made these sentences more concise (p. 2, lines 47-49): ‘Colleges and universities have the ability, like most educational institutions [1]-[5], to set up public health