

Reviewer's report

Title: Physical activity, energy requirements, and adequacy of dietary macro- and micronutrient intakes of older persons in a rural Filipino community

Version: 1 **Date:** 10 October 2008

Reviewer: Laura Sands

Reviewer's report:

The manuscript, "Physical activity, energy requirements, and adequacy of dietary macro- and micronutrient intakes of older persons in a rural Filipino community," is a clearly written paper that describes older Philipinos' nutritional intake.

Major Compulsory Revisions:

The introduction didn't discuss why the current study provides novel information to the literature on nutritional intake in older adults.

Most results include hypothesis tests for age differences, gender differences and SES differences. All are important, but it was unclear whether the authors want the reader to focus on the age decile differences, the gender differences, or the SES differences. For example, Table 3 presents the characteristics of the sample by gender, which suggests that the authors' focus in on gender differences. Then Table 4 presents results for age, gender and SES differences resulting in 39 p-values. With a sample size of 98, having as many as 39 hypothesis tests is too many. Then Table 5 presents results so that the columns reflect gender and the rows reflect age deciles, suggesting that they are focusing on differences between genders, stratified by age. The Discussion section included some explanation of differences between age deciles, and a little discussion of how SES may affect nutritional status, but there was no explanation of gender differences. I found little rationale in the introduction or discussion for all the hypotheses they tested. For this manuscript, I suggest the authors focus on testing hypotheses for one factor (e.g. differences in age deciles), then use the other variables (e.g. gender and SES) as covariates. In another paper, the authors could focus on explaining differences in SES or differences in gender (both of which would require greater consideration of how social roles impact gender and SES differences in nutritional intake and energy expenditure).

Specific comments:

Introduction: The second and third sentences of the first paragraph may be deleted.

Methods:

Lines 5 and 14: How were patients assessed to determine whether they were 'coherent' and 'had the ability to comprehend?'

Line 5: Does 'free-living' refer to living in the community as compared to a nursing home? What does 'free-living' mean?

Lines 10-11: How was the list of 179 older persons validated? Was this a random sample of all older adults in specific communities? How were the names for the list compiled? How representative is the sample of all older Philipinos?

Lines 17-19: For which analyses were the finer categorizations of age used? If these finer gradations were not used in analyses, please delete this sentence.

Statistical Methods:

A little clarification is needed related to the footnotes for Tables 4-8. For example, results are presented for the three age categories. In addition the footnotes say, 'Significant differences among age groups in multiple linear regression analysis taking age, gender and SES into account. The footnote gives the impression that the authors are including age twice in the regression equation used to test for age differences. I am sure this is not the case, but I think the footnotes should be clarified.

Data Collection:

Page 2, lines 1-3: During a single observation period (e.g. one day) how many hours of observation occurred? Was there opportunity to observe the subjects' activity patterns throughout the morning, afternoon, and evening?

Results:

Page 3, Lines 5-13 (referring to Table 6): Why didn't the authors discuss the age differences in energy, protein and carbohydrates (note typo in Carbohydrates for Table 6)?

Discussion: The authors didn't describe the limitations of the study. For example, was the sample representative of all older Philipinos or older adults from other countries? How accurate were the food recalls? Do the authors have evidence of interrater reliability for portion sizes, etc.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests