Reviewer's report

Title: Body mass index, physical activity, and dietary behaviors among members of an urban community fitness center: A questionnaire survey

Version: 1 Date: 8 March 2007

Reviewer: Alyson Littman

Reviewer's report:

General

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

None

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

- It would be more appropriate for the authors to use language that reflected the cross-sectional nature of the data. In particular, it would be more appropriate to refer to characteristics which are associated with each other as "correlates" rather than "predictors" because temporality cannot be established.
- In the methods, please provide the numbers of individuals excluded or found to be ineligible for each reason, e.g., unable to speak English, no longer members of the YMCA, moved out of the area, etc.
- In the conclusion, authors should present the percentage of survey respondents that reported meeting current PA guidelines, instead of simply stating, "although survey respondents reported meeting current physical activity ...

- In the tables, one superscript per characteristic should be used, since the comparison is between short-term and long-term members, not within categories of the characteristic.
- In the footnote of table 1, the authors should make clear what comparisons are being made and what the p-value is testing (i.e., null hypothesis)
- The same categories of education, income, interest in changing PA and dietary habits should be used in tables 1 and 3.
- In the abstract and throughout the paper, the authors state that their study assessed the need for a weight control and physical activity intervention among members of an urban YMCA facility. However, this seems to overstate the nature of the survey, which assessed the prevalence of various characteristics and risk factors, which is not the same as assessing the need for interventions.
- In presenting the results, it would be more helpful to present proportions of individuals with the characteristics in question, rather than the p-value alone. Also, in the abstract and the results, the authors state that "gender was inversely associated with BMI." The meaning and interpretation of this statement depends on how gender was coded (e.g., 0 for male and 1 for female). To avoid confusion, it would be helpful to simply state that the average BMI was higher for females/males, and then give mean values.
- A major limitation of this study is that the authors did not collect information on previous sports club membership or participation. The authors hypothesize that "a smaller percentage of short-term members would be meeting current physical activity, dietary, and weight recommendations compared to long-term members", but it is possible that short-term members were previously members of a different health club and/or regularly exercised before joining the YMCA. The authors should note this limitation.
- It would be helpful for the authors to explain the justification for their original sample of 304 people, and how these enrollees were identified. Also, given that a number of people were found to be ineligible because they were no longer members of the YMCA or had moved out of the area, it is unclear how accurate their method of identifying eligible participants was.
- The authors used the short form of the International Physical Activity Questionnaire (IPAQ). This is a major limitation of the study and should be mentioned in the discussion. The IPAQ was created for national and regional surveillance systems and may not be appropriate for such a small sample.
- In the methods, the authors describe assessing motivation to change physical activity and dietary behaviors. The stages of change include two stages that are not mentioned: action and maintenance. The authors should clarify how people in the action or maintenance phase were classified.
- The authors appropriately note that a very high percentage of participants reported meeting the physical activity recommendations. They explain that this might be a result of them being members of a fitness facility at the time of completing the survey. The authors should consider alternative explanations including
social desirability bias, the fact that individuals were selected to participate in the survey because of their YMCA membership, and selection bias (perhaps the less physically active individuals refused to participate).

- It would be informative for the authors to propose why the directions of associations in the current study were not always consistent with what has been observed in previous research.
- The estimates of minutes per week of physical activity presented in table 3 seem very high – 43 hours per week for those in vocational/trade school. Does this include low-intensity activity? Because the authors discuss physical activity in terms of meeting the guidelines, the minutes per week should correspond to only moderate or high-intensity activity, or they should present the different types of activity separately to allow the data to be more easily interpreted.

Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests.