Reviewer’s report

Title: Long-term members' use of fitness centers: a qualitative study

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Reviewer: John C Peters

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The was a qualitative observational study exploring potential reasons for individuals maintaining long-term fitness club membership and potential predictors of commercial fitness center use. The authors suggest that the need for this information is that few studies have been done on "ordinary" fitness center members and it is important to explore what people see as the motives for maintaining membership and factors that may influence membership and use. This topic is of interest, however the size and rigor of the study suggest that it would be more suited to be reported as a pilot investigation. Specific comments follow.

1. Participant selection: Their study sample seems like a convenience sample and not a true random sample. The authors report using 8 out of 12 fitness centers belonging to the 3T chain of establishments in Trondheim. They also report that there are 34,000 members of this club in the city. Their sample size was 21 individuals across 8 clubs. They did not provide demographic information about how well their sample represents the larger population of 34,000 members, or even the total number of members that have been active for >2 years. In addition, on line 90 it says that they "sought to get variation in gender, age and use of activities and frequency of visits." Yet, on line 92 it says that participants who met the age and membership criteria were randomly selected, with no mention of recruitment to fill particular strata for gender, age, activities or visits. Thus, it is not clear what criteria were used in informant selection. Therefore, it is hard to conclude that their sample represents "ordinary" fitness center members. It would also be helpful to define what they mean by "ordinary".

2. On line 103 it says an interview guide was developed in part based on literature, yet there is no literature cited pertaining to this design element.

3. The authors describe their STC process as a series of meetings designed to select meaning units that were then coded and sorted into groups. This process is not well described, e.g., by giving examples of meaning units, code groups, etc. Given the subjective nature of this work, it would be helpful for the reader to understand more about how the participant responses were coded and categorized. Also, what was the nature of the data that did not fit into theme areas? Were there responses that provided additional insight into members' motivations that were not included because they did not fit a thematic area?

4. On lines 129-133 the authors describe analyzing data from the first 13 participants and then modifying the process for the final eight, yet data from all 21 subjects was used in the final analysis. How was this handled analytically given that the data were collected using two different protocols or discussion guides?
5. Was any attempt made to quantify the number of responses of the 21 people that fit into the theme or coded areas?, i.e., for any given response, how many of the 21 people mentioned it? It is difficult to interpret how important the responses are without some understanding of how frequently they were mentioned. Might they consider a frequency distribution chart of some type?

6. Since there is no control group for comparison (e.g., people who have not been members for >2 years) the factors identified may or may not be unique to individuals who are long term members of a fitness center. Given this, what can the authors conclude about what new insights come from this data that can be practically applied to improving physical activity in the population? Their conclusions, although with limited data, seem straightforward, and it would be surprising if existing commercial fitness clubs were not already focusing their messaging on health, appearance and amenities that make clubs a good place to go for physical activity.

7. Given the convenience population studied and the relatively small sample size, what would the authors suggest as further studies needed to better describe a representative population of long term users, add a comparison group, etc.?

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
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I recommend additional statistical review

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