Author’s response to reviews

Title: Accelerometer-Measured Versus Self-Reported Physical Activity Levels in Women Before and up to 48 Months After Roux-en-Y Gastric Bypass

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Author’s response to reviews:

Dear editor Donnelly,

Thank you for the opportunity to once again revise our paper entitled “Accelerometer-Measured Versus Self-Reported Physical Activity Levels in Women Before and up to 48 Months After Roux-en-Y Gastric Bypass”. Below, please see a detailed description of our responses and ways to address each comment from the reviewers. In the manuscript, all changes performed have been highlighted in yellow. In this document, all citations with changes from the manuscript are in quotes.

Editor Comments:

In the 'Funding' statement, please declare the role of the funding body in the design of the study and collection, analysis, and interpretation of data and in writing the manuscript.

Response:
Thank you for the opportunity for us to clarify this! The funding bodies did not have any role in the design of the study, data collection, the analyses, interpretation of data or the writing of the manuscript. We have now included a sentence about this in the “Funding” statement in the beginning of the page 15:
“The funding bodies did not have any role in the study design, the data collection, the analyses, the interpretation of data or the writing of the manuscript.”
Reviewer #1:

Authors have adequately answered to questions and queries indicated by this reviewer.

Reviewer #2:

The authors have addressed my major concerns which focus on the small sample size and limitations of the accelerometer. My fellow reviewer has raised questions regarding appropriate statistical methods which are outside of my areas of expertise. The strength of the paper is that it confirms many of our biases regarding self reported activity (or any other habit such as alcohol consumption or smoking.) The big question is what do we do about it? Should patients get accelerometers from early postop with regular feedback on their smartphones? Should objective physical activity be entered into the medical record? If patients demonstrate that they aren't compliant, what are the consequences or interventions?

Response:

Thank you for these insightful additional questions! It is of great importance that the post-surgery after-care is satisfying and can help bariatric patients to optimize the results from the surgery and to be sufficiently active. The evidence on the post-bariatric surgery health benefits associated with physical activity/exercise are increasing, see e.g. Bellicha et al. that show that physical activity can maintain the post-surgery weight loss and improve body composition (https://www.fisiologiadelejercicio.com/wp-content/uploads/2018/10/Effectiveness-of-exercise-training-after-bariatric-surgery.pdf), and Coen et al. that physical activity is a critical factor for bariatric patients’ long-term weight loss maintenance and lasting remission of type 2 diabetes (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6147093/pdf/jes-46-262.pdf). We have already in the “conclusion” section touched upon that objective measures such as accelerometers should be used to post-surgery as patients may not increase their physical activity if they “think” they already are sufficiently active. We have now expanded this section after your recommendation, with more examples and “hands-on” tools. The new sentences are in the section “Conclusion”, in the beginning of page 14:

“These tools may include accelerometers provided by the hospitals as a part of the after-surgery care, that health-care personnel can analyze and discuss with the patient at a follow-up visit. Hospitals may also organize exercise groups for bariatric surgery patients post-surgery, where patients can get familiarized with different types of physical activity in a safe environment together with other patients that share the same experience (having undergone a bariatric surgery). Patients may also be encouraged to use mobile apps or own advices that measures physical activity (like pedometers, smart watches or apps that continuously measures daily physical activity) to learn their own physical activity behavior and to see how different activities are registered in different physical activity levels. They may also get information about the existing physical activity guidelines and what advantages sufficient physical activity can have on their health as well as how physical activity can optimize their results of the surgery.”