Author's response to reviews

Title: Exercise Intervention During Pregnancy Can Be Used To Manage Weight Gain And Improve Pregnancy Outcomes In Women With Gestational Diabetes Mellitus

Authors:

Chen Wang (18518079870@163.com)
Weiwei Zhu (zhuweiwei@126.com)
Yumei Wei (Weiyumei1982@126.com)
Hui Feng (fenghui@163.com)
Rina Su (surina126014@126.com)
Huixia Yang (yanghuixia@bjmu.edu.cn)

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Author's response to reviews: see over
Point By Point Response

Exercise Intervention During Pregnancy Can Be Used To Manage Weight Gain And Improve Pregnancy Outcomes In Women With Gestational Diabetes Mellitus

Overall response: Thank you for giving us the opportunity to revise this manuscript. We were pleased to read that the editor and the reviewers are positive about our paper. We have taken every effort to address each point raised during the review. Overall, we found that the reviewer comments were useful and there were many good suggestions to help us improve the text.

Reviewer #1:
Major Compulsory Revisions
Methods:
1) The present study was described as a part of a large prospective study. However, there were no details about that large prospective study. It is unclear about how women were recruited, details about the diet and exercise interventions for women with GDM, whether or not women without GDM received any diet or exercise interventions during the study period, etc.

Response: At first, we are very sorry for the verbal error we made in describing the large study in the method. In fact, it was a retrospective study. We sincerely apologize for such a simple mistake we made and we have corrected it in the methods (Our description of the large study in other parts of the manuscript were correct). All of the women delivered from June 20th to November 30th, 2013, in 15 hospitals which were chosen as clusters by systemic cluster sampling method in Beijing were recruited in the large retrospective study. A questionnaire was designed to get their demographic information and clinical data. According to the question settings in the questionnaire, if a pregnant woman was diagnosed with GDM, she would be asked about her therapy information during pregnancy, and exercise and diet interventions were listed as therapy items in this part. That's why the starting time of exercise intervention during pregnancy in our manuscript was 25.8±3.7 gestational weeks. It is regrettable that the question settings for exercise and diet interventions during pregnancy only had two options, one is “Yes”, another is “No”, so we failed to know details about the diet and exercise interventions for women with GDM. It indeed the critical shortcoming of our study. But we have a basic standard. In particular, exercise intervention means sit less, take more steps, be more active, incorporate light and moderate PA as much as possible into their daily life et al., and diet intervention means reduce intake of sugar, eat more vegetables, reduce fat intake, and the total energy intake 1800 calories a day in all. Besides, we tend to believe that if pregnant women stated that they had exercise or diet intervention during pregnancy, they should at least have the concept of being more active and pay more attention to their diet structure. However, in this study, women without GDM didn’t provide their therapy information. They were regarded as people with no need for additional treatment or intervention, therefore we classified them as people didn’t have exercise and diet intervention during pregnancy and used them to serve as the control group. However, we have evaluated pregnant women’s physical...
labor during pregnancy, no matter they were women without GDM or women with GDM, and the results were shown in the manuscript.

Results
1) The main analyses were based on three study groups of: normal group, GDM without exercise group and GDM with exercise group. However, information about the types of exercise, level and duration of exercise intervention during pregnancy was unclear (as reported in line 317-319), hence, results of this study needs cautious interpretation.

Response: Thank you for the comments. The types of exercise, especially level and duration of exercise intervention during pregnancy were exactly important in evaluating the role of exercise. Lacking of these information is the critical shortcoming of our study. Actually, our study was an observational study, rather than intervention study. We just collected information about patients’ disease condition and their outcomes, but didn’t do any intervention for them. All the patients’ treatment methods were depended on their disease condition by doctors. So we could not unify the treatment methods for patients. But we have a basic standard. In particular, exercise intervention means sit less, take more steps, be more active, et al., and diet intervention means reduce intake of sugar, eat more vegetables, reduce fat intake, and the total energy intake of 1800 calories a day. More or less, our study shed some light on exercise can be a non-invasive therapeutic option to manage weight gain and improve pregnancy outcomes in women with GDM.

It is undeniable that the retrospective study had some drawbacks in the study design, and now we have already revised our interpretation of the results in the manuscript.

Discussion
1) Over-interpretation of the study findings may exist.

Response: Thanks for the comments. This has been now revised.

2) Too lengthy, a more succinct and concise discussion would be better.

Response: We thank the reviewer for the comments. We have revised the discussion in the manuscript.

Minor Essential Revisions
Title:
1) ??in managing GDM gestational weight gain?? is ambiguous.

Response: We thank the reviewer for the comments. The title of manuscript is revised as follows: Exercise Intervention During Pregnancy Can Be Used To Manage Weight Gain And Improve Pregnancy Outcomes In Women With Gestational Diabetes Mellitus
Background:
1) Majority of the information described is understandable. However, it will be helpful to include additional information about diet and exercise during pregnancy, diet and exercise for women with GDM, as both diet and exercise were key interventions to address the research question proposed by the authors.

Response: Thanks for the comments. We have included the relevant content in the background.

Discussion
1) Line 241-244: not appropriate to be included in discussion section.

Response: Thanks for the comments. This has been now revised.

2) Line 263-268: it is not appropriate to include the new information about exercise and glycaemic control during pregnancy in the discussion section without the support of relevant outcome data.

Response: Thanks for the comments. This has been now revised.

Quality of written English: Not suitable for publication unless extensively edited

Response: We thank the reviewer for the comments. The manuscript have been copyedited by American Journal Experts (AJE)

Reviewer #2:
Important contribution, particularly because of the large number of subjects included in the study.
1. The authors could strengthen their message by indicating that many published studies by prominent researchers have been critical of the IOM recommendations for gestational weight gain for obese pregnant women.

Response: We thank the reviewer for the comments. We have added the relevant information, also including pertinent references.

2. Modifying the report by the NIH Obesity classes could provide valuable information, also including pertinent references.
Response: Thanks for the comments. We are really very sorry that we can not understand this question exactly, Do you mean we need to modify our result according to different pre-pregnancy BMI categories? We'd like to receive your reply and do our best to revise our manuscript.

3. The statement made by the authors that "To our knowledge, our study is the first large study...." is incorrect.
The first and largest study was published by: Dye TD et al; Am. J. Epidemiol. 1997;146(11):961-5

Response: We thank the reviewer for the comments. This has been now revised.

Quality of written English: Needs some language corrections before being published

Response: We thank the reviewer for the comments. The manuscript has been copyedited by American Journal Experts (AJE)