

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Gestational weight gain and adverse pregnancy outcomes: a prospective cohort study
AUTHORS	Wu, Yuelin; Wan, Sheng; Gu, Shengyi; Mou, Zhengqian; Dong, Lingling; Luo, Zhong-Cheng; Zhang, Jun; Hua, Xiaolin

VERSION 1 – REVIEW

REVIEWER	Caroline de Barros Gomes Medical School of São Paulo State University (UNESP), Botucatu Campus, Brazil.
REVIEW RETURNED	01-Apr-2020

GENERAL COMMENTS	<p>General comments</p> <p>The article presents a topic of great relevance: investigation of outcomes related to gestational weight gain. It was performed on a birth cohort in China and investigates several important outcomes. It has as strengths the data collection at various moments of the pregnancy and an investigated number of 2670 pregnant women. However, the text needs to be completely revised by a qualified professional or a native speaker. An example of the need for this revision is the use of different expressions for one of the main results: “normal” / “within” / “average” and with the incorrect use of these expressions often.</p> <p>In addition, the text begins by pointing out the limitations and strengths of the study, but the BMJ publications include “What is already known on this topic” and “What this study adds” and this is not presented.</p> <p>There are some points that need to be better clarified and are pointed out item by item below.</p> <p>Abstract</p> <p>The abstract is well written and allows the reader to have a good idea of what the work proposes to do. I just suggest rewriting the conclusion pointing out which associations with which outcomes were found, in addition to only bringing notes of the results actually found.</p> <p>Introduction</p> <p>Page 6, line 30: I suggest changing “who gained” by “gain”</p> <p>Page 6, line 33: I suggest removing reference 5 from the end of the sentence. This reference can confuse the reader, as being a reference of studies with gestational weight gain outside the recommendations when, in reality, it is a reference of the guidelines. The following sentence clarifies the information and is properly referenced.</p>
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Page 7, line 15: In what sense is the population studied considered homogeneous? This is also important to be clarified to the reader.

Methods

Page 8, lines 38-48: The sentence is confused, I suggest rewriting it with shorter sentences. In addition, it was not informed when data collection was completed.

Figure1: The last Flowchart sequence has writing problems and it is not described in the text. It is important to bring this information into the text because the n evaluated in early pregnancy and in late pregnancy are very different from the total n presented.

Page 10, line 5-8: Why was the calculation of weight gain from late pregnancy made by subtracting the measured weight ≤ 17 weeks? Wouldn't it be more appropriate to do this calculation with a weight after 17 weeks?

Page 10, line 11-15: In the methods section, it is not described that the z-scores were made by gestational age. This is only pointed out in the abstract and is one of the most important parts of the study method. What were the means (or medians) of the z-score of gestational weight gain in each of the moments evaluated?

Page 10, line 29-40: Why were the analyzes at different periods of pregnancy limited to pregnant women who were considered to have "normal" GWG in the inverse period? In the discussion, this choice is pointed out with the idea of evaluating the outcomes independently to the other period. However, an adjustment could be made in the analyzes that had already guaranteed this independence of results. And this option becomes more confusing when looking at the n's in the tables. For example, in early pregnancy it is noted that 1605 women were evaluated, with GWG being considered "normal" in 1233, but in the late pregnancy table it is pointed out that 1717 women were evaluated and the same total (1233) presented GWG "normal".

Page 11, line 19: was the value considered for hyperbilirubinemia exactly 12mg / dL?

Page 11, line 37: has an extra "de"

Page 12, line 23: I believe the word "below" was spelled by mistake.

Page 12, line 30: I suggest replacing the word "counts and percentages" by "frequencies"

Page 13, lines 49-56: The sentence is very confusing and data is missing. The references for GWG above and below are also reversed. In addition, the percentages that are referred refer to n = 2670? The total does not sum 100%: 1717 = 64.3%; $> +1 = 14.4\%$; $<-1 = 13.7\%$; $64.3 + 14.4 + 13.7 = 92.4\%$)

Table 1: The number of categories is not adding 2670, but 2630.

Table 1: The mix of units in the same table makes it confusing. I suggest grouping the variables with the same unit in blocks (in the same table), but indicate the units in the previous line (example: n (%); Mean (SD)). The same goes for tables S1 and S2.

Tables S3 and S4: I also suggest bringing the adjusted values because in the figures it is not possible to know these values exactly.

Page 14, line 56: I suggest replacing the word "odds" by "risk"

Table S5: The sum is n = 1690, however previously it was pointed out that there were 1605 pregnant women with GWG data being evaluated in late pregnancy.

Table S6: Bring the n in the tables, as done in the others.

Discussion

	<p>The results of the studies in the discussion can be brought in a more direct way, and it is not necessary to point out the evaluated N, OR, IC, p-value.</p> <p>Page 17, lines 15-29: It is possible to control lower weight gain in a lower gestational age by adjusting the gestational age at the birth in the analyzes. Another less error-prone way is to perform weekly gestational weight gain analysis, in the 2nd and 3rd gestational trimesters, as recommended by the Institute of Medicine, an assessment more widely used in the literature.</p> <p>A comparative analysis of the GWG of this population and of the results found with the Institute of Medicine weight gain recommendations can help in the relevance of the results found.</p>
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REVIEWER	U. VIVIAN UKAH McGill University, Canada
REVIEW RETURNED	04-May-2020

GENERAL COMMENTS	<p>General comments: The authors investigated the association between gestational weight gain and adverse pregnancy outcomes, focusing on the timing of weight gain (early or late gestation). This is an important perinatal topic and could provide useful information on whether the effect of weight gain on pregnancy outcomes varies, depending on the gestational period. While this study presents potentially good ideas, more information and justification is required for the methodology. Improving the writing of study would also be beneficial as some sentences are not clear.</p> <p>Major comments: Page 7, Lines 8-12: What do the authors mean by ‘studies have not accounted for the effects of weight gain in other periods of pregnancy?’ Clarify/expand. Page 7, Lines 38-40: Why were women recruited in pre-conception care? How do these women compare to the general Shanghai population – were these women seeking any form of fertility treatment? Also, can the authors provide a brief summary of what the initial SBC study was for? Page 8, Line 48: Why did the authors decide to exclude women with pre-existing conditions, rather than adjust for them in the analyses? This may have introduced selection bias in the study in addition to the loss of study sample. Justification is not clear for why 17 weeks was used as a cut-off for early pregnancy. If the authors are considering first antenatal care visit, the World Health Organization recommends the first antenatal visit at 16 weeks, not 17 weeks. I also think that 20 weeks gestational age would have been more appropriate as this is assumed to be half of pregnancy period (40 weeks for full term). Page 10, line 55 and Page 11, line 9: Why did the authors include gestational diabetes (GDM) as both covariates and outcomes? Page 12, lines 51-60. The regression models should have been adjusted for all confounders, not selected only based on p-values.</p> <p>Minor comments: Abstract, Line 9 – Sentence is missing a word Abstract: It is more meaningful to report associations with 95% confidence intervals than p-values. Page 5, Line 9 – Define SBC</p>
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VERSION 1 – AUTHOR RESPONSE

Response to reviewers' comments:

Reviewer: 1

Please leave your comments for the authors below

General comments

The article presents a topic of great relevance: investigation of outcomes related to gestational weight gain. It was performed on a birth cohort in China and investigates several important outcomes. It has as strengths the data collection at various moments of the pregnancy and an investigated number of 2670 pregnant women. However, the text needs to be completely revised by a qualified professional or a native speaker. An example of the need for this revision is the use of different expressions for one of the main results: “normal” / “within” / “average” and with the incorrect use of these expressions often.

In addition, the text begins by pointing out the limitations and strengths of the study, but the BMJ publications include “What is already known on this topic” and “What this study adds” and this is not presented.

Response: Thank you for all the valuable comments. The BMJ Open requires the “Strengths and limitations of this study” bullet.

There are some points that need to be better clarified and are pointed out item by item below.

Abstract

The abstract is well written and allows the reader to have a good idea of what the work proposes to do. I just suggest rewriting the conclusion pointing out which associations with which outcomes were found, in addition to only bringing notes of the results actually found.

Response: We rewrote the conclusion according to your suggestion.

Introduction

Page 6, line 30: I suggest changing “who gained” by “gain”

Page 6, line 33: I suggest removing reference 5 from the end of the sentence. This reference can confuse the reader, as being a reference of studies with gestational weight gain outside the recommendations when, in reality, it is a reference of the guidelines. The following sentence clarifies the information and is properly referenced.

Response: We made revisions accordingly.

Page 7, line 15: In what sense is the population studied considered homogeneous? This is also important to be clarified to the reader.

Response: We removed the term “homogeneous”. Although the participants could be characterized as well-educated urban women in general, there were variations with respect to demographic and behavioral profiles.

Methods

Page 8, lines 38-48: The sentence is confused, I suggest rewriting it with shorter sentences. In addition, it was not informed when data collection was completed.

Response: We rewrote the statements for inclusion and exclusion criteria. The data collection was completed on Nov31, 2016. The time period of data collection was added on Page 7 (Study design and data source).

Figure1: The last Flowchart sequence has writing problems and it is not described in the text. It is important to bring this information into the text because the n evaluated in early pregnancy and in late pregnancy are very different from the total n presented.

Response: We revised Figure 1. The description of participants inclusion and exclusion was moved to the result section.

Page 10, line 5-8: Why was the calculation of weight gain from late pregnancy made by subtracting the measured weight \leq 17 weeks? Wouldn't it be more appropriate to do this calculation with a weight after 17 weeks?

Response: Owing to a lack of data, we did not calculate the GWG in late pregnancy as the way you proposed. In the database, we had relatively complete data which were collected at the first antenatal examination and delivery.

Page 10, line 11-15: In the methods section, it is not described that the z-scores were made by gestational age. This is only pointed out in the abstract and is one of the most important parts of the study method. What were the means (or medians) of the z-score of gestational weight gain in each of the moments evaluated?

Response: We revised the statement accordingly. The mean weight gain by time period and body mass index category is presented in Table 1, S1, and S2.

Page 10, line 29-40: Why were the analyzes at different periods of pregnancy limited to pregnant women who were considered to have “normal” GWG in the inverse period? In the discussion, this choice is pointed out with the idea of evaluating the outcomes independently to the other period. However, an adjustment could be made in the analyzes that had already guaranteed this independence of results. And this option becomes more confusing when looking at the n's in the tables. For example, in early pregnancy it is noted that 1605 women were evaluated, with GWG being considered “normal” in 1233, but in the late pregnancy table it is pointed out that 1717 women were evaluated and the same total (1233) presented GWG “normal”.

Response: To control for the effect of GWG at different phrase of gestation, we restricted the analysis in subgroups having normal GWG beyond the study time period. For example, in the analysis for the association of early GWG with outcomes, we required normal GWG in late pregnancy. This means that, the reference group had to have normal GWG in both early and late pregnancy simultaneously. This is also applicable for the analysis for the association of late GWG with outcomes. In brief, for both subgroup analyses, the reference group was exactly the same group of women (n=1233).

Page 11, line 19: was the value considered for hyperbilirubinemia exactly 12mg / dL?

Response: It was ≥ 12 mg / dL.

Page 11, line 37: has an extra “de”

Response: Apologies for the typo. It was “de novo”

Page 12, line 23: I believe the word “below” was spelled by mistake.

Response: Apologies for the mistake. We corrected it.

Page 12, line 30: I suggest replacing the word “counts and percentages” by “frequencies”

Response: We recived accordingly.

Page 13, lines 49-56: The sentence is very confusing and data is missing. The references for GWG above and below are also reversed. In addition, the percentages that are referred refer to n = 2670? The total does not sum 100%: 1717 = 64.3%; > +1 = 14.4%; <-1 = 13.7%; 64.3 + 14.4 + 13.7 = 92.4%)

Response: The analytic datasets are different for subgroup analyses (because of different inclusion criteria). As shown in Figure 1, 1605 women were included in the analysis for early GWG and outcomes, while 1717 women were included in the analysis for late GWG and outcomes. But both analytic datasets shared the same reference group who had average GWG in both early and late pregnancy (n=1233). We clarified this in the first paragraph of the result section.

Table 1: The number of categories is not adding 2670, but 2630.

Table 1: The mix of units in the same table makes it confusing. I suggest grouping the variables with the same unit in blocks (in the same table), but indicate the units in the previous line (example: n (%); Mean (SD)). The same goes for tables S1 and S2.

Response: The correct number is 2630, and we revised Table 1, Figure 1, and manuscript accordingly. In addition, we revised Table 1, Table S1, and Table S2 by indicating the descriptive statistics for each variable in the first column.

Tables S3 and S4: I also suggest bringing the adjusted values because in the figures it is not possible to know these values exactly.

Response: We replaced unadjusted RR with adjusted estimates in Table S3–S6.

Page 14, line 56: I suggest replacing the word “odds” by “risk”

Response: We replaced the word “odds” with “risk”.

Table S5: The sum is n = 1690, however previously it was pointed out that there were 1605 pregnant women with GWG data being evaluated in late pregnancy.

Response: In late pregnancy, a total of 1717 women was evaluated (Fig 1, Table S2). However, 27 infant missed sex information. As a result, the sum in Table S5 is 1690.

Table S6: Bring the n in the tables, as done in the others.

Response: We added the total numbers.

Discussion

The results of the studies in the discussion can be brought in a more direct way, and it is not necessary to point out the evaluated N, OR, IC, p-value.

Response: We removed these values from the discussion section now.

Page 17, lines 15-29: It is possible to control lower weight gain in a lower gestational age by adjusting the gestational age at the birth in the analyzes. Another less error-prone way is to perform weekly gestational weight gain analysis, in the 2nd and 3rd gestational trimesters, as recommended by the Institute of Medicine, an assessment more widely used in the literature.

Response: Thank you for the suggestion. We will use the method in our study in the future.

A comparative analysis of the GWG of this population and of the results found with the Institute of Medicine weight gain recommendations can help in the relevance of the results found.

Response: Thank you for the suggestion. The 2009 IOM recommendations suggested 0.5 to 2 kg weight gain for women in the first trimester (0 to 13 week). However, a cut-off for early pregnancy was 17 weeks in our study. Therefore, the early GWG of this population and that of 2009 IOM recommendations are not comparable. In addition, the 2009 IOM recommendations suggested total GWG of 12.5 to 18 kg for women with pre-pregnancy BMI less than 18.5 (underweight); 11.5 to 16 kg for those with BMI of 18.5 to 24.9 (normal weight); 7 to 11.5 kg for those with an initial BMI of 25.0 to 29.9 (overweight); and 5 to 9 kg for those with an initial BMI greater than 30.0 (obese). However, in this study, due to the sporadic number of obese women, we analyze them together with overweight women. We added the total GWG of this population in table 1 and comparison with the IOM recommendations wrote in discussion section.

Reviewer: 2

Please leave your comments for the authors below

General comments:

The authors investigated the association between gestational weight gain and adverse pregnancy outcomes, focusing on the timing of weight gain (early or late gestation). This is an important perinatal topic and could provide useful information on whether the effect of weight gain on pregnancy

outcomes varies, depending on the gestational period. While this study presents potentially good ideas, more information and justification is required for the methodology. Improving the writing of study would also be beneficial as some sentences are not clear.

Major comments:

Page 7, Lines 8-12: What do the authors mean by 'studies have not accounted for the effects of weight gain in other periods of pregnancy?' Clarify/expand.

Response: We separately analyzed and compared the effect of gestational weight gain in early and late pregnancy. The timing of weight gain might have different effects on pregnancy outcomes. However, previous studies did not control the potential effect of weight gain beyond the study period. In our study, we excluded women with insufficient or excess weight gain ($z < -1$ or $z > 1$) beyond the period we investigated.

Page 7, Lines 38-40: Why were women recruited in pre-conception care? How do these women compare to the general Shanghai population – were these women seeking any form of fertility treatment? Also, can the authors provide a brief summary of what the initial SBC study was for?

Response: The Shanghai Birth Cohort (SBC) is a prospective observational study conducted in Shanghai, China, aiming to examine factors affecting fecundability, pregnancy outcomes, child growth and development, and risks of diseases. SBC included a preconception cohort and a pregnancy cohort. In the preconception cohort, 1180 eligible couples were recruited at two preconception care clinics from 2013 to 2015. In the pregnancy cohort, couples were recruited at six SBC participating hospitals from 2013 to 2016. A total of 4127 couples were enrolled in the pregnancy cohort, with 701 recruited at the preconception period. The Chinese government has been promoting preconception care for couples who plan to be pregnant. Couples can go to designated clinics for health education, physical examination and counselling for a better pregnancy. In brief, the preconception cohort was conducted to investigate how pre-gravid factors affect birth outcomes. These women were not seeking fertility treatment.

Page 8, Line 48: Why did the authors decide to exclude women with pre-existing conditions, rather than adjust for them in the analyses? This may have introduced selection bias in the study in addition to the loss of study sample.

Response: We excluded women with diseases that might affect both weight gain and outcomes and confound the association we investigated. Since they accounted for a small proportion (6.8%) of our sample, we believe the exclusion would not affect the conclusion of study.

Justification is not clear for why 17 weeks was used as a cut-off for early pregnancy. If the authors are considering first antenatal care visit, the World Health Organization recommends the first antenatal

visit at 16 weeks, not 17 weeks. I also think that 20 weeks gestational age would have been more appropriate as this is assumed to be half of pregnancy period (40 weeks for full term).

Response: The time point was primarily selected to retain the most sample. Although 17 weeks is an unusual time point, a previous study also used 16+6 weeks as the cut-off (reference 17).

Page 10, line 55 and Page 11, line 9: Why did the authors include gestational diabetes (GDM) as both covariates and outcomes?

Response: GDM might be an intermediary that links weight gain and birth outcomes. As a result, we adjusted for GDM in model for neonatal outcomes.

Page 12, lines 51-60. The regression models should have been adjusted for all confounders, not selected only based on p-values.

Response: We identified potential confounders that were significantly or marginally ($P < 0.2$) associated with the exposure variable (weight gain). While we agree with you that confounding factors could also be identified based on biological basis, we did not choose to adjust for all covariates we presented to save the degree of freedom.

Minor comments:

Abstract, Line 9 – Sentence is missing a word

Abstract: It is more meaningful to report associations with 95% confidence intervals than p-values.

Page 5, Line 9 – Define SBC

Response: Thank you for the comments. We made revisions accordingly.

VERSION 2 – REVIEW

REVIEWER	Caroline de Barros Gomes Botucatu Medical School, São Paulo State University, Brazil.
REVIEW RETURNED	27-Jun-2020
GENERAL COMMENTS	General comments The text showed a significant improvement, especially regarding the clarity of what and how the investigation was carried out. There was a significant improvement in English writing, but some points still need to be revised.

	<p>Abstract Page 3, line 52: it is not customary to insert “etc” in scientific papers. I suggest withdrawing. Page 3, line 55-58: This last sentence of the conclusion is confusing to me, I suggest rewriting it.</p> <p>Introduction Page 7, line 30: replace “who gained” with “gain” Page 8, lines 15-22: I suggest writing in a more direct way, such as: “In a Chinese population-based study, our objective was to explore the association of GWG during early and late pregnancy with maternal and neonatal outcomes”</p> <p>Methods Page 8, lines 52-55: September 1st, 2013 and November 31th, 2016 Page 10, lines 48-55: Please include in the text that the IOM's early pregnancy classification is different from that used in this study Page 10, line 58: replace “was” with “is” Page 11, lines 4-11: I believe that instead of “weight measured <= 17 weeks” the most correct would be “the last weight measured <= 17 weeks” as there may be women with more than one weight measured before 17 weeks, or not? Page 11, lines 33-43: include the justification (presented in the first reply letter) of the reason for choosing to only do the analyzes with women who had weight gain considered normal in the opposite period of pregnancy. Page 13, lines 27-30: Better to use the same standard for writing, for example: “Continuous variables were described by mean with standard deviation (SD) or median with interquartile range (IQR)”. Page 13, line 41: I believe that the word incidence has an extra “S” Page 14, lines 4-8: include explanation of why adjust by GDM and PIH even if these covariates are not potentially associated in the crude analysis.</p> <p>Results Page 15, line 30 “compared with the average GWG” Page 16, line 29: Replace “odds” with “risk” Figures and tables title: “17 weeks” instead of “17 week”</p> <p>Discussion Page 17, lines 45-49: The sentence is confusing, I suggest rewriting it, such as “In this study, we found different associations of gestational stage-specific weight gain with maternal and neonatal outcomes” Page 17, line 52: “early pregnancy” Page 18, line 8: I believe there is an extra “S” in the word “literature” Page 18, lines 25-33: very confusing passage, I suggest rewriting with more direct and short sentences Page 19, line 15: I believe it is “LGA” Page 21, line 33: “Our study present results”, “the” is not necessary Page 21, line 54: I suggest replacing “doctors” with “health professionals who assist prenatal care” Page 22, line 36 and line 57: I suggest replacing “Total GWG of average” with “Total GWG on average” Page 23, lines 47-50: a verb is missing from the sentence</p>
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VERSION 2 – AUTHOR RESPONSE

Reviewer(s)' Comments to Author:

Reviewer: 1

General comments

The text showed a significant improvement, especially regarding the clarity of what and how the investigation was carried out.

There was a significant improvement in English writing, but some points still need to be revised.

Response: Thank you. We revised accordingly.

Abstract

Page 3, line 52: it is not customary to insert “etc” in scientific papers. I suggest withdrawing.

Page 3, line 55-58: This last sentence of the conclusion is confusing to me, I suggest rewriting it.

Response: We presumed that you pointed to the content on page 4. We rewrote the conclusion according to your suggestion.

Introduction

Page 7, line 30: replace “who gained” with “gain”

Page 8, lines 15-22: I suggest writing in a more direct way, such as: “In a Chinese population-based study, our objective was to explore the association of GWG during early and late pregnancy with maternal and neonatal outcomes”

Response: Thank you. We revised accordingly.

Methods

Page 8, lines 52-55: September 1st, 2013 and November 31th, 2016

Response: Thank you. We revised accordingly. Also, we updated the figure1 accordingly.

Page 10, lines 48-55: Please include in the text that the IOM's early pregnancy classification is different from that used in this study

Response: Thank you for the suggestion. We added in the text that the IOM's early and total pregnancy classifications are different from that used in this study. And we clarified the GWG of this population in table1 and comparison with the IOM recommendations wrote in discussion section.

Page 10, line 58: replace “was” with “is”

Response: Thank you. We revised accordingly.

Page 11, lines 4-11: I believe that instead of “weight measured \leq 17 weeks” the most correct would be “the last weight measured \leq 17 weeks” as there may be women with more than one weight measured before 17 weeks, or not?

Response: Thank you for the suggestion. Women did measure their weight more than once before 17 weeks. We revised accordingly.

Page 11, lines 33-43: include the justification (presented in the first reply letter) of the reason for choosing to only do the analyzes with women who had weight gain considered normal in the opposite period of pregnancy.

Response: Previous studies suggested different associations of gestational stage-specific weight gain with maternal and neonatal outcomes. For example, weight gain in early pregnancy is associated with offspring BMI, whereas weight gain in mid pregnancy tended to be associated with the offspring's metabolic and inflammatory biomarkers. Thus, we wanted to disentangle

the associations of other periods of GWG with pregnancy outcomes from GWG in specific periods.

Page 13, lines 27-30: Better to use the same standard for writing, for example: “Continuous variables were described by mean with standard deviation (SD) or median with interquartile range (IQR)”.

Response: Thank you. We revised accordingly.

Page 13, line 41: I believe that the word incidence has an extra “S”

Response: Apologies for the mistake. We corrected it.

Page 14, lines 4-8: include explanation of why adjust by GDM and PIH even if these covariates are not potentially associated in the crude analysis.

Response: Thank you. Previous studies suggested that women with GDM or HIP have long been known to be at increased risk for adverse neonatal outcomes, including neonatal intensive care admission, cesarean section, preterm delivery <37 weeks and neonatal morbidity. As a result, neonatal outcomes models were further adjusted for GDM and PIH in addition to the aforementioned factors. We clarified in our manuscript now.

Results

Page 15, line 30 “compared with the average GWG”

Page 16, line 29: Replace “odds” with “risk”
Figures and tables title: “17 weeks” instead of “17 week”

Response: Thank you. We revised accordingly.

Discussion

Page 17, lines 45-49: The sentence is confusing, I suggest rewriting it, such as “In this study, we found different associations of gestational stage-specific weight gain with maternal and neonatal outcomes”

Response: We rewrote the sentence according to your suggestion.

Page 17, line 52: “early pregnancy”

Response: We made revisions accordingly.

Page 18, line 8: I believe there is an extra “S” in the word “literature”

Response: Response: Apologies for the mistake. We corrected it.

Page 18, lines 25-33: very confusing passage, I suggest rewriting with more direct and short sentences

Response: We rewrote the sentence according to your suggestion.

Page 19, line 15: I believe it is “LGA”

Response: Apologies for the typo. It was “LGA”.

Page 21, line 33: “Our study present results”, “the” is not necessary

Page 21, line 54: I suggest replacing “doctors” with “health professionals who assist prenatal care”

Page 22, line 36 and line 57: I suggest replacing “Total GWG of average” with “Total GWG on average”

Page 23, lines 47-50: a verb is missing from the sentence

Response: Thank you. We made revisions accordingly.

VERSION 3 – REVIEW

REVIEWER	Caroline de Barros Gomes Botucatu Medical School, São Paulo State University. Brazil.
REVIEW RETURNED	14-Jul-2020

GENERAL COMMENTS	The additions and adjustments made have greatly improved the quality of the paper. I only suggest the inclusion in the text of the justification of including in the analysis only pregnant women with adequate weight gain in the opposite period of pregnancy. This justification was presented twice to the reviewers, but I believe it is very relevant to include it in the text, for all future readers.
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VERSION 3 – AUTHOR RESPONSE

Reviewer(s)' Comments to Author:

Reviewer: 1

Please state any competing interests or state 'None declared':

None declared

Response: We stated "None declared" in our manuscript this time and highlighted by using coloured text.

Please leave your comments for the authors below

The additions and adjustments made have greatly improved the quality of the paper. I only suggest the inclusion in the text of the justification of including in the analysis only pregnant women with adequate weight gain in the opposite period of pregnancy. This justification was presented twice to the reviewers, but I believe it is very relevant to include it in the text, for all future readers.

Response: Thank you. We revised accordingly.