PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (http://bmjopen.bmj.com/site/about/resources/checklist.pdf) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Health care provider's gestational weight gain counselling practices and the influence of knowledge and attitudes: A cross-sectional mixed methods study
AUTHORS	Morris, Jillian; Nikolopoulos, Hara; Berry, Tanya; Jain, Venu; Vallis, Michael; Piccinini-Valllis, Helena; Bell, R

VERSION 1 – REVIEW

REVIEWER	Dr Wendy Lawrence
	Medical Research Council Lifecourse Epidemiology Unit, University
	of Southampton
	UK
REVIEW RETURNED	31-Jul-2017
GENERAL COMMENTS	This is a well-written paper, presenting important insights into healthcare provider prenatal practices regarding GWG. I have no major issues, but some minor revisions that would improve the presentation, flow and clarity of the paper are suggested below. I think where the most attention should be focused is in the Discussion section, which would benefit from some restructuring and a punchier final paragraph to clearly state the take-home messages which can be drawn from this study.
	Abstract P2 In32 – First mention of gestational weight gain, so put (GWG) after, then use GWG for rest of Abstract. Also need to be consistent with this throughout manuscript – I've indicated some areas where I think "weight gain" could be replaced with GWG.
	P2 In44 – "had longer appointments for in-depth counselling". Do you mean they routinely have longer apts to accommodate this counselling or that they could offer additional apts for this? If the latter, then could usefully be reworded: "… and could make additional longer appointments for in-depth counselling when required."
	P2 In44-5 – Next sentence might read better (if I've understood it correctly) as: "Regression results identified that the more/higher? priority healthcare providers placed on GWG the more likely they were to discuss physical activity and food requirements (stats), and advise on GWG and the risks of weight gain outside the recommended levels (stats)."
	P2 In48 – could usefully add "financial" before compensation if it's always financial? I didn't understand what compensation methods meant until I read further into the manuscript.

P2 In50 & 52 – change to GWG in both cases. Strengths & Limitations of this study
P3 In 55-7 – Given what you say later in the manuscript, ie there's not been a study of this scale previously, I think you could make more of your 1st bullet. Perhaps make the final comment "enhanced by use of mixed methods" a separate strength bullet?
P3 In58-9 – I wasn't sure what point the 2nd bullet was making. What does this mean for your study/future direction etc.? Is it a strength or limitation? Think you need to expand on this to link to your study.
P3 In65 – Where did the fact that "rates of some counselling practices are quite low" come from? This study? Previous research? Need to be clear as again wasn't sure if this point was about a strength or limitation of your study.
Introduction P4 In9 – change to "is linked to a range of"
P4 In42 – change to "Thus excess GWG has short-term, long-term and intergenerational effects."
P5 In6 – change to "as well as offering tailored"
Methods P6 In26 – change to " and lends itself well to"
P6 In33 – should you provide an ethics number here?
P6 In 47 – Did you have a health psychologist in your team? If not, what level of "expertise" do you mean in relation to health psychology? Might need to remove "health" from before psychology.
P7 In36-39 – change to "Responses indicated level of agreement with each statement"
P8 In44 – consider changing "Outcomes" to "Materials" which seems more appropriate.
P8 In46 – change to "A semi-structured interview guide"
P9 In10 – change to " from the different disciplines"
P9 In22 – description of your analysis (& presentation in Table 4) looks more like thematic than content. I don't know what qualitative expertise you have in your team, but would like the analysis method clarified with whoever undertook it, to double check what they did. If it IS content analysis, then I think your description is inaccurate.
Results P10 In29, 34 & 51 – change to GWG
P10 In46 – change to "Interviewees described the first prenatal visit as including measurement"
P11 In10 – could you clarify if "half would routinely relay" relates to half of all hc providers or half of those who weigh women at every visit.

P12 In8 – might read better as "printed resources"
P12 In25-7 – change to "only the difference between midwives and registered nurses' responses was significant. There were significant
P12 In44 – GWG
P13 In3 – I don't think it's helpful to say "Many hc providers" as qualitative analysis is not generally undertaken in order to quantify something so I'd remove "many". You could insert "generally" somewhere in the sentence to indicate this was a popular view.
P14 In8 – change to " access to dietetic services"
Discussion Overall, I think the order of this section was a little odd. I would make a separate header for "Strengths & Limitations" & move whole chunk from p15 ln 29 "A major strength" to p16 ln 22 "various health care systems" to after " in order to be effective at changing health care provider behaviour." I think the final para could usefully be headed "Recommendations" or "Implications" & some of the things said in other parts of the Discussion could usefully be placed here.
P14 In52 – change to "Additionally, this study identified"
P15 In6 – not sure what you mean by "documentation of ", could you be clearer what you mean. Maybe "enhanced understanding" or "new insights", something like that?
P15 In13-16 – change to "Even after controlling for multiple other predictors, analysis showed that midwives were significantly more likely than other healthcare providers to discuss physical activity and food requirements (can't you say "diet" instead of "food requirements" throughout?) with women during routine prenatal care."
P15 In20 – change to " their impact on GWG, health behaviours like physical activity and diet, and"
P15 In29 – change to "This allowed for some verification of"
P16 In44 – change to " who are overweight or obese at the start of their pregnancy."
P17 In15 – what does the "their" relate to in " evidence related to their impact on disease in later life"? If it's GWG, which is the only thing in the sentence I can find that it might be, then should be "its impact".
P17 In34 – change to "Furthermore, discussion of healthy GWG"
P17 In46 – change to " attitudes towards GWG were related to their practice, "
P17 In51 – change to "Additionally, health care providers' …" P18 In25 – I think there's something missing in this sentence as it didn't make sense to me "… research is needed to elucidate the most effective counselling methods and promising practices to recommend and help women achieve in order to promote appropriate GWG".

As I've said at start of this section's review, I think this final para could be enhanced if you pull some points made in other paras to here, making it a stronger take-home message. Table 1 Could the h/c provider discipline & Province be listed from most to
least %s – so NP would be last in 1st list for eg?

REVIEWER	Alexis Shub University of Melbourne, Australia
REVIEW RETURNED	18-Aug-2017

GENERAL COMMENTS	Thank you for the opportunity to review this interesting paper about an important topic Inclusion of the questionnaire would enable greater reader understanding of the details of the questions. It is unclear if participants were asked details of the various guidelines, or asked if they had knowledge of the guideline or asked if they were aware of the existence of the guideline (line 27). The number of participants is large, but the inability to determine the response rate, as noted by the authors , is a major limitation. The
	 selection criteria for the qualitative interview is not clear. Although participants were selected to represent a wide range of disciplines, it is not described whether they were selected because of an interest in GWG counselling. Discussion may be improved by discussion of the evidence that
	counselling does impact on weight or obstetric outcomes for women.

VERSION 1 – AUTHOR RESPONSE

Response to Dr. Lawrence:

We thank Dr. Lawrence for her detailed comments and suggestions for re-wording parts of the manuscript that were unclear. We have made the following revisions as requested:

Page/Line in First Submission Page/Line in Revised Submission Comment or Revised Wording

Abstract

P2 Ln 32 P2 Ln 32 "weight gain" is replaced with GWG throughout

P2 Ln 44 P2 Ln 44 Clarified that midwives had longer appointment times which allow them to provide more in-depth counselling.

P2 Ln 44-5 Pg 2 Ln 46 Clarified as suggested

P2 Ln 48 Pg 2 Ln 49 Financial added as suggested

Strengths and Limitations

Pg 3 Ln 55-7 Pg 3 Ln 57-61 Noted that this is a large scale study

Noted that the mixed methods is a strength of this study

Pg 3 Ln 58-9 Pg 3 Ln 60 Clarified that the wide applicability of this study is a strength.

Pg 3 Ln 65 Pg 3 Ln 66-69 Points 4 and 5 have been re-worded to indicate additional limitations to this study.

Introduction Pg 4 Lns 9-6 Pg 4 Ln 76 – Pg 5 Ln Clarified as suggested

Methods

Pg 6 Ln 26 Pg 6 Ln 131 Changed as suggested Pg 6 Ln 33 Pg 6 Ln 134 Added ethics application number Pg 6 Ln 47 Pg 6 Ln 141 Yes, Dr. Michael Vallis is a registered Health Psychologist. Dr. Tanya Berry holds a PhD in Psychology with a focus on physical activity health promotion and behaviour. Pg 7 Ln 36 to Pg 9 Ln 10 Pg 7 Ln 154 to Pg 9 Ln 198 Changed as suggested Pg 9 Ln 22 Pg 9 Ln 201 - 205 The description of the qualitative methods used has been clarified and we have added an additional reference to this point.

Results

Pg 10 Ln 29 – Pg 12 Ln 44 Pg 10 Ln 220 – Pg 13 Ln 283 Changed as suggested Pg 13 Ln 13 to Pg 14 Ln 8 Pg 13 Ln 288 to Pg 14 Ln 314 Changed as suggested

Discussion

We agree with the Dr. Lawrence and Dr. Shub's suggestions regarding this section. We have reorganized the discussion and incorporated the points suggested. We have also included discussion of the evidence that counselling impacts on weight or obstetric outcomes.

Pg 14 Ln 52 to Pg 16 Ln 44 Pg 16 Ln 355 to Pg 17 Ln 401 Changed as suggested

Pg 17 Ln 15 Pg 15 Ln 347 Clarified as suggested

Pg 17 Ln 34 to Pg 17 Ln 51 Pg 18 Ln 404 to Pg 19 Ln 423 Changed as suggested

Pg 18 Ln 25 Pg 16 Ln 351-354 This sentence has been clarified.

Table 1

We have re-ordered the Health Care Provider disciplines as suggested. We have not changed order of the provinces since the current order reflects the geography of Canada (from west to east and north) and it allows BC and Alberta to remain grouped to display the interview participants.

Response to Dr. Shub

We thank Dr. Shub for her suggestions to improve this manuscript. We have made the following additions/revisions:

Comment from Dr. Shub Response

Inclusion of the questionnaire We have included a pdf of the questionnaire used in this study in the additional materials

It is unclear if participants were asked details about the content of guidelines or if they had knowledge of the guidelines or awareness of whether guidelines existed. Pg 7 Ln 155: we have clarified that participants were asked about their detailed knowledge of the content of practice guidelines related to gestational weight gain that came from the IOM or Health Canada.

The selection criteria for the interviews is not clear. Pg 9 Ln 194-198: We have added additional information about how participants were selected for this portion of the study.

It is not described whether respondents (to the questionnaire) were selected because of an interest in GWG counselling Pg 10 Ln 218 – 221: This has been clarified.

Briefly, the first question on the questionnaire asked whether a respondent saw pregnant women in their practice. If they answered "yes" to that question and met other criteria as described in the Results, their responses to questions were scored and retained for analyses.

Discussion may be improved by providing evidence that counselling does impact on weight or obstetric outcomes. Pg 15 Ln 332: We appreciate this suggestion and have incorporated some of this evidence into the Discussion. We have tied this back to the Summary bullet points as well.

Table 5 is referred to on Pg 13 Ln 285 Added a reference to Table 6 on Pg 14 Ln 305

VERSION 2 – REVIEW

REVIEWER	Dr Wendy Lawrence MRC Lifecourse Epidemiology Unit, University of Southampton, UK
REVIEW RETURNED	27-Sep-2017

GENERAL COMMENTS	I'm happy with the amendments made and the authors' explanations in the covering letter. I have just made a few very minor tracked changes & comments on the attached which I recommend being made. Then I feel this manuscript is acceptable for publication.
	The reviewer also provided a marked copy with additional comments. Please contact the publisher for full details.

VERSION 2 – AUTHOR RESPONSE

Response:

Thank you for these very helpful comments. We have amended the manuscript as suggested.

Key Words: these are now in alphabetical order Discussion, Lines 327 - 333, 339 - 342, 414 - wording changes as suggested have been incorporated

We have added a Data Sharing Statement into the main document as requested (Lines 566-567).