Author's response to reviews

Title: What practices do parents perceive as effective or ineffective in promoting a healthy diet, physical activity, and less sitting in children: parent focus groups

Authors:

Sara De Lepeleere (sara.delepeleere@ugent.be)
Maïté Verloigne (maite.verloigne@ugent.be)
Ann DeSmet (Ann.DeSmet@UGent.be)
Bart Soenens (bart.soenens@ugent.be)
Greet Cardon (greet.cardon@ugent.be)
Ilse De Bourdeaudhuij (ilse.debourdeaudhuij@ugent.be)

Version: 2 Date: 30 August 2013

Author's response to reviews: see over
Dear Editor,

We thank you for considering publication of our manuscript “What practices do parents perceive as effective or ineffective in promoting a healthy diet, physical activity, and less sitting in children: parent focus groups” (Manuscript: 1690098739967879) in BMC Public Health. We thank the reviewers for their valuable comments which enabled us to further improve our paper. We separately responded to each of the points made by the reviewers in bold font and indicated the changes we incorporated in the article in an italic font. We hope that these changes made our paper acceptable for publication in BMC Public Health and thank you in advance for the reconsideration.

Kind regards,

Sara De Lepeleere
Reviewer Tom Baranowski

Major Compulsory Revisions

1. There are several reports of qualitative research in regard to parenting re. children's diet, PA & screen media use (GF Bentley et al. BMC Pedi 2012, 12:180), and several reviews have appeared of parenting in regard to these same child behaviors (e.g. Hingle et al. Prev Med 2010, 51:103-11; TM O'Connor et al. AJPM 2009, 37:141-9; Sleddens et al. Obes Rev 2012, 13:1015-33; SM Gerards et al. Intl J Pedi Obes 2011, 6:e28-45; Sleddens et al. IJPO 2011, 6:e12-27), but are not cited in this manuscript. The authors need to better summarize what is already known, and show how their research is innovative, i.e. expands what is already known.

Thank you for these suggestions. We were happy to add these references to the paper, to offer the reader a better summary of the current literature. Furthermore, on the base of the comments of the second reviewer, some other extra references were added. Additionally, the background (pages 3-6) of the article has been rewritten to better summarize what is already known and to show how this research is innovative.

Page 3, lines 45-46:
“In the literature, an increasing number of studies and reviews highlights the impact of parenting on the development of healthy children [5,16-26].”


Page 4, lines 56-60:
“Results from the review of Sleddens et al. [28] suggest that children raised in authoritative homes (high involvement and high strictness) ate more healthily, were more physically active and had lower BMI levels compared to children who were raised with other styles (authoritarian, permissive, neglectful).”


Page 6, lines 97-100:
“Since several reviews conclude that a potential barrier to implement an effective parent-focused intervention is a lack of theory-driven research [11,53,54], a second aim of the current study is to
investigate the relationship between the perceived effective and ineffective parenting practices and SDT or SCT.”


Page 6, lines 104-109:
“Since parents report the need for strategies to encourage their children to eat healthy foods and be more physically active [56], the information arising from the current study will be used to inform the content of a randomized controlled trial consisting of a parenting intervention aimed at promoting a healthy diet, PA, and less SB in primary schoolchildren.”


2. The manuscript is rather long for n=21. The Results should be presented more synoptically, emphasizing issues not previously found in the literature.

We agree that this manuscript is rather long. We tried to constrain the information of this expansive study but also did not want to lose any important information. In the results’ section of the revised manuscript, less important findings as ‘clear agreements and healthy habits at school’ and ‘giving in’ were removed. Furthermore, by placing all focus group quotes in table-format (Table 3), we shortened our manuscript and emphasized main and the most innovative research results.

<table>
<thead>
<tr>
<th>1. General parenting practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Giving an explanation</td>
</tr>
<tr>
<td>“… if you just can explain them what it is all about, they will experience the problem differently.” (Father)</td>
</tr>
<tr>
<td>B. Time-out</td>
</tr>
<tr>
<td>“… and if they don’t get their way, you have to put them immediately in the corner. Wherever you are, put them in the corner. They have to stand there for a couple of seconds or minutes. For a young child, it doesn’t have to last that long… We have done it that way and it has borne fruit.” (Father)</td>
</tr>
</tbody>
</table>
**C. Anger**

“I sometimes really feel sorry for those children! If you hear parents say: ‘You can beat him. Then you think…”” (Father)

“You even sometimes see them beating their children! I already saw some horrible things happening at the school gate…”” (Mother)

**2. Physical activity**

**A. Giving as much freedom as possible**

“They have to decide themselves what the advantages and disadvantages are […] I also think that an eleven year old child has to be taught that she’s responsible for her own decisions and own behavior. As a parent you can just try to offer them the different options.”” (Mother)

**B. Monitoring and being consistent**

“Since this school year, the 5th grade, S. is allowed to go alone by bike to school. I told her that it was ok, but she had to stop […] to go across and always wear a helmet. ‘Yes yes yes’, she was going to do that. The first day, my father […] was watching her from his van. Of course she arrived without wearing her helmet […]. So I said she wasn’t allowed to go to school by bike for four weeks. If she couldn’t keep to the rules, I assumed she wasn’t ready yet to go alone by bike… she cried, cried […]but I brought her to school by car for four weeks and then allowed her to go by bike again.”” (Mother)

**C. Increasing intrinsic value**

“Sometimes, walking is boring for a child. Then you try to sing songs or to make walking more fun by playing a game.”” (Father)

**D. Obliging**

“Our children are member of a sports club and it has already occurred that they say ‘I don’t want to go anymore because he or she doesn’t come’. Then we oblige them and just say ‘We paid for these sport lessons, so you have to go.’”” (Mother)

**E. Empathy**

“If such a situation would occur, I would try to look for ‘Why?’. If they always liked to go and all of a sudden they refuse, there has to be a cause. Something that explains it, like bullying or another external cause why they don’t want to go anymore. Then I would try to listen, ask for an explanation and then eventually stimulate my child to go.”” (Father)

**F. Motivating your child**

“If there is an activity of which I know that she really likes to do it and that’s the reason they don’t want to go anymore – that somebody drops out – then we would first try to convince her to persist.”” (Father)

**G. Rewarding**

“At school, they really stimulate to go to school in an active way. Every year there is a ‘cycling period’. If they come by bike to school in that period and they wear a helmet and a fluorescent vest, they get a stamp… that stamp and the trading stamp book… yeah, I sometimes really have the impression that children need a lot of stimuli and motivation. It all has to be framed and something has to be done with it. A trading stamp book, a lottery, a gift if they win,… I think all those things matter.”” (Mother)

**3. Sedentary behavior**
A. **Rules and agreements**

“I do adopt very strict rules. It’s very regulated because otherwise they watch TV all day long.” (Mother)

“I think that’s comparable to watching TV. Once you forbid it, they want to watch more.” (Mother)

“As long as he listens when I say ‘Stop’, I don’t think it’s necessary to say that he just can watch on certain days or hours.” (Mother)

B. **Monitoring**

“We use an alarm clock in the kitchen, a kitchen timer, and when it goes off, it’s finished. We really have to do this because otherwise a discussion gets always started. I let my children put the kitchen timer on themselves... And when it goes off and they don’t want to stop, I say: ‘Either you stop right now, or you don’t play on your Nintendo for the rest of the week’. End of discussion.” (Mother)

C. **Offering alternatives**

“Or I propose them to help out, and if they did so, then we do something nice together. [...] suggesting an alternative, so they don’t have to watch TV. That works for them.” (Mother)

4. **Healthy diet**

A. **Rules and agreements**

“In our family, the children always drink water, except if we have a visitor. Then they are allowed to consume soft drinks. Or when we dine out, they can choose what they want to drink. And it isn’t water they will choose.” (Mother)

“Once you forbid sweets, they will… ‘I cannot have sweets, I cannot have sweets…’. So if they go somewhere they think immediately ‘I want some sweets!’.” (Mother)

B. **Being a role model**

“They will prefer a biscuit over a piece of fruit. Actually, as a parent you should set a good example to your child, but yeah, that doesn’t always happens.” (Father)

C. **Obliging**

“We just apply the ‘tasting’ rule. They just have to taste. And if they don’t like it, they don’t like it and then they don’t have to finish it. But they just have to taste.” (Mother)

D. **Availability**

“... in weekends, and halfway the week, you buy fruit so you always have fruit available. That way they eat fruit.” (Mother)

E. **Giving as much freedom as possible**

“There is bread or sometimes sandwiches or a toast. But mostly they eat cereals. Because I do find it very important that they have breakfast.” (Father)

F. **Using dessert as a reward or punishing by withholding a dessert**

“What’s on the plate, has to be finished. And if it’s finished, they get a dessert. If something stays on the plate, no dessert. So, only rarely they don’t finish their plate because they absolutely want a dessert.” (Mother)

3. The same is true of the Discussion.

Indeed, also the discussion comprises a large part of the manuscript. On the one hand, we tried to discuss only the most important findings, but on the other hand, the second reviewer...
asked to move beyond the descriptive to the interpretative. Therefore, some parts have been broadened to give the reader a more thorough insight into the topic:

Page 22, lines 365-371:
Other parenting practices considered effective, were applying clear rules and agreements, being consistent and parental monitoring. Parents give their children as much freedom as possible (which is autonomy supporting), but simultaneously they impose the necessary limits by making clear agreements, monitoring the behavior of their child and being consistent when the child does not listen. These parenting practices provide structure to a child which fulfills both the principles of SCT and the fundamental need of feeling competent according to SDT [44,62].

Page 24, lines 402-408:
“But, although some parents reported they involve their children in household chores as an alternative for screen-time, this seems to be challenging for other parents. Especially in times of stress, parents take the view that they can do household chores better and faster if they do them themselves without involving their child [66]. How parents can truly engage their children in realistic home-based alternatives to screen time will be an interesting challenge for future interventions.”

Page 25, lines 436-441:
“On the other hand, when parents apply a ‘tasting rule’ which means that the child just tries the food but then has the choice whether or not to finish what is on his/her plate, this can also be seen as providing structure to a child (which fits to both SCT and SDT [44,62]). Furthermore, just tasting will not take away a child’s feeling of hunger and therefore does not undermine the child’s natural ability to respond to its satiety feeling and does not subvert the human need to feel autonomous.”

Minor Essential Revisions

4. The current literature on parenting in regard to diet, PA and screen media use distinguishes between parenting style and parenting practices. The topics in this manuscript appear to be parenting practices. To be consistent with the current literature, the authors should switch terms from strategies to practices.

We have now adjusted this throughout the manuscript by replacing the terms ‘strategy’ and ‘strategies’ by the terms ‘practice’ and ‘practices’.

5. I suggest a title revision: What practices parents perceive as....: parent focus groups

As suggested, we have adjusted the title into: ‘What practices do parents perceive as effective or ineffective in promoting a healthy diet, physical activity, and less sitting in children: parent focus groups’
Reviewer Simon Sebire

Major Compulsory revisions

1. Page 5, line 87: Some key literature is neglected in the introduction. For example Jago and colleagues have recently published papers reporting the Teamplay physical activity parenting trial (IJBNPA), and Bentley et al have reported qualitative interviews with parents about physical activity parenting (BMC Pediatrics). In addition, Hesketh et al (Health Promotion International 2005) reported qualitative work with parents about obesity-related behaviours and Power’s work (J Sch Health, 2012) also seems relevant. It would be advisable to represent the literature more fully and in doing so try to justify further how the present research adds to the existing literature and the exact ways that it is novel and therefore necessary.

Thank you for these references. We were happy to enrich our paper with them. The abovementioned papers were read thoroughly and important information was added to the background of the manuscript. Furthermore, on the base of the comments of the second reviewer, some other extra references were added. Additionally, current knowledge was summarized more clearly in the background and the novelty of this study was highlighted more extensively.

Page 3, lines 45-46:
“In the literature, an increasing number of studies and reviews highlights the impact of parenting on the development of healthy children [5,16-26].”


Page 4, lines 56-60:
“Results from the review of Sleddens et al. [28] suggest that children raised in authoritative homes (high involvement and high strictness) ate more healthily, were more physically active and had lower BMI levels compared to children who were raised with other styles (authoritarian, permissive, neglectful).”

“Since several reviews conclude that a potential barrier to implement an effective parent-focused intervention is a lack of theory-driven research [11,53,54], a second aim of the current study is to investigate the relationship between the perceived effective and ineffective parenting practices and SDT or SCT.”


“Since parents report the need for strategies to encourage their children to eat healthy foods and be more physically active [56], the information arising from the current study will be used to inform the content of a randomized controlled trial consisting of a parenting intervention aimed at promoting a healthy diet, PA, and less SB in primary schoolchildren.”


First aim of the study - Page 4, lines 49-69:
“Within this research area, a subdivision is made between the influence of general parenting styles and specific parenting practices regarding diet, PA and/or SB [22-28]. The commonly used approach in general parenting research is based on the work of Maccoby and Martin [27] who described parenting style as a function of two dimensions of parental behavior: the responsiveness of parents to their child’s needs through affectionate and sensitive interactions (involvement), and the attempt to control their child’s behavior through discipline and expectations (strictness). Results from the review of Sleddens et al. [28] suggest that children raised in authoritative homes (high involvement and high strictness) ate more healthily, were more physically active and had lower BMI levels compared to children who were raised with other styles (authoritarian, permissive, neglectful). Specific parenting practices include influencing a child’s specific behavior (healthy diet, PA or SB) via e.g. modeling, social support, parental control, availability and rules and agreements [24,29-31]. Recently, many studies were designed to prevent obesity and/or promote health in children through specific dietary, PA and SB changes that involved parents [19,32-39]. Nevertheless, to the best of our knowledge, no studies have been conducted to assess which of these specific practices parents evaluate as effective and achievable to implement. Since the success of a parenting program depends upon
the degree to which parents’ concerns and motivations are integrated into the program design [40], the current study aims to address this gap in literature.”

Second aim of the study - Page 6, lines 97-100:
“Since several reviews conclude that a potential barrier to implement an effective parent-focused intervention is a lack of theory-driven research [11,53,54], a second aim of the current study is to investigate the relationship between the perceived effective and ineffective parenting practices and SDT or SCT.”

2. SDT and SCT are clearly embedded in the study which is positive in my opinion. But this raises a question of the degree to which these theories influenced data collection, questions asked in focus groups, follow ups on topics which may have been viewed by the interviewers as theoretically informative, data analysis etc. The role of the theories should be acknowledged. This is related to a later point referring to trustworthiness and quality criteria in qualitative work.

Thank you for this useful remark. In parenting literature SDT and SCT are two important theories which have been recognized for years. Therefore we decided not to use Grounded Theory, which involves the discovery of theory through the analysis of data, as analysis technique for the focus groups. Instead, the group discussions were analyzed using Thematic Analysis. In our revised manuscript, we tried to better explain the role of SDT and SCT in the study’s data collection and data analysis.

Methods (analyses) - Page 10, lines 171-182:
“Data were coded and analyzed using Thematic Analysis [57] in the qualitative data analysis software Nvivo 10.0. In Thematic Analysis, a coding framework tends to be constructed on the basis of the theoretical interests guiding the research questions, on the basis of salient issues that arise in the text itself, or on the basis of both [57]. Since SDT and SCT are two prominent theories in parenting literature, the focus groups were conducted taking them into account. Furthermore, whereas focus groups are often chosen as a strategy to discover new themes, the aim of the current group discussions was to identify whether parenting strategies, which are already recognized in literature, were perceived as effective or ineffective by parents. Whilst all data were read and considered, the main aim of the analysis was to identify factors that would need to be taken into account when developing a parenting program.”

3. Page 4, line 75: SCT is introduced here but this seems overly brief and only focusses on one aspect (rewarding). It may be worth considering broadening out the description of the theories as they are being considered separately at present whereas in reality they overlap in some respects (e.g., competence and self-efficacy) and disagree in others.

We have broadened the description of both theories (SCT and SDT), and overlap and differences between the theories were made more clear.
“Parenting practices as reacting empathetically, motivating, increasing the intrinsic value of an activity, applying clear rules and agreements, being consistent, modeling, monitoring and offering alternative activities with as much choice as possible, fulfill both the principles of SDT and SCT [41-46].”

“According to SDT, all human beings have the fundamental need to feel related, competent, and autonomous in order to develop and function optimally [47]. Relatedness refers to the need to feel connected to others, to be a member of a larger community, to love and care and to be loved and cared for. The feeling of competence covers the belief that one has the means to control his or her own behaviors and is closely related to the concept of self-efficacy. Finally, the need for autonomy represents an individual’s inherent desire to act as the causal agent of one’s own life and act in harmony with one’s inner self [48].”

“SCT on the other hand specifies the unending reciprocal interrelatedness of personal, physical and social environmental, and behavioral factors [50]. Key elements of SCT include outcome expectancies, perceived self-efficacy, social norms, behavioral skills, reinforcement, and environmental factors such as availability [51].”

4. Page 5, line 101: How was SES measured and how were participants recruited based on SES? Were all participants screened for SES and selected into focus groups based on this? What was the baseline number of participants who volunteered and how many of these were involved in focus groups? If SES was used as a stratification / recruitment factor then it would seem relevant to explore this in the data analysis and discussion. The authors presumably thought that SES may influence the parent’s views, so it would be prudent to examine if it did.

Thank you for this comment. Because all employees and employers of the workplaces were invited to participate, parents of different SES were included in the focus groups. In the brief questionnaire, filled in at the onset of the group discussion, parents reported their highest level of education which we used to measure SES. We have added the following information to the paper to clarify the role of SES and to provide more information on the recruitment in this study.

“Methods (Participants) – Page 7, lines 122-125:
“All employees and employers of the workplace who had at least one primary schoolchild were invited to participate, whereby focus groups consisted of parents of different Social Economic Status (SES). SES was measured using the reported educational level of the parent.”
Methods (Procedure) - Page 7, lines 137-138:
“Since recruitment of a sufficient number of participants (six to ten) was difficult, all parents who volunteered, attended the focus groups.”

Discussion – limitations (page 27, lines 483-488)
“A last limitation is that SES was not used as a stratification/recruitment factor. By recruiting participants via their workplace, unemployed parents were not involved in the group discussions. That way, over-representation of parents with medium-high SES is possible. Furthermore, in this study differences between low and medium-high SES parents were not investigated, which is an important issue that can be included in future research.”

5. Page 6. The authors used hypothetical situations to stimulate discussion. While this is a common technique and clearly stimulated discussion can the authors comment on the degree to which parents’ responses reflected their likely actions in real situations? A potential limitation of using hypothetical questions rather than having parents reflect upon their own real-lived experiences is that they also give hypothetical answers. Parent-child communication is contextual and likely is influenced in the moment by a multitude of contextual, daily fluctuating factors. Can responses to hypothetical situations really represent the reality of parent-child communications and to what extent are parents referring to what they hope they would do rather than what actually happens?

Thank you for this important remark. As with most qualitative research, social desirability bias cannot be excluded since focus group research uses self-reporting practices, which may have led to inconsistency with actual experiences. Therefore, this remark was mentioned in the limitation section of the discussion.
Furthermore, hypothetical situations were indeed used in the current focus groups. These situations were based on anecdotal reports and were frequently experienced parenting situations. The hypothetical situations were used to set a context for the participants and to start discussion. Parents adjusted these situations automatically to their own real-lived experiences.
To make this clear to the reader, we have added the following section to the methods (procedure) and discussion section:

Page 8, lines 153-157:
“Subsequently, a semi-structured questioning route in which the examples of the questionnaire were used as a starting point to stimulate the discussion, was used to guide the group debate (Table 2). Hereby, parents adjusted the hypothetical situations to their own real-lived experiences.”

Page 27, lines 482-843:
“Furthermore, responses to hypothetical situations may not fully represent the reality of parent-child communications.”
6. Page 8. The analysis section is currently very brief and provides too little information to judge whether the methodology was appropriate. For example what analysis was conducted? Did the authors follow a published analysis technique, if so, what were the steps in this analysis? Exactly how were codes and themes developed? What quality / trustworthiness criteria were used in the data collection, analysis and write up? With only 4 focus groups, it would be appropriate for all of them to be coded by multiple analysts. At present the discussion of inter-rater reliability takes a quantitative and positivistic view which seems to be in conflict with the qualitative methodology. I would recommend embracing the qualitative methodology more which will allow the authors to get more out of their data.

Thank you for providing concrete suggestions on how to improve the analysis section. We have added further information based on your suggestions.

We have added more information to the analysis section

Page 10, lines 171-175:
“Data were coded and analyzed using Thematic Analysis [57] in the qualitative data analysis software Nvivo 10.0. In Thematic Analysis a coding framework tends to be constructed on the basis of the theoretical interests guiding the research questions, on the basis of salient issues that arise in the text itself, or on the basis of both [57].”

Disclosure of the multiple quality / trustworthiness criteria used

1. Interviewer style

Data collection of all focus groups was performed by the same two researchers jointly. This reduces variation in interviewer style between the focus groups.

Page 7, lines 131-132:
“All data were collected between June and October 2012 by the same two trained researchers.”

2. The quality of the questioning route

Page 8, lines 157-158:
“The quality of the questioning route was verified in discussion with prominent health researchers.”

3. Coding frame

Based on the comments of the reviewer, the coding frame was now independently tested for all four transcripts by two members of the research team, showing good interrater reliability.

Page 10, lines 183-184:
“All four focus groups were independently coded by two trained researchers, which gave a full analysis of interrater reliability (ICC=0.87).”
Page 9, Results. It was encouraging to see the presentation of long quotes rather than short snippets. However, the results seem very descriptive at the cost of making meaningful and informative interpretations of the data. I would like to see the authors move beyond the descriptive to the interpretative. For example, in the quote supporting “time out” there are lots of interesting interpretations in here that could be made; “wherever you are” suggests that the rule is portable, not restricted to home and something the parent seems to have embedded in their life whatever the situation. On Page 14, the quote supporting “monitoring” refers to a very interesting combination of autonomy support and parental control which seems to have been neglected. In addition, some themes (e.g., giving an explanation) are not supported by any quotes and many themes are only supported by a single quote. It appears that due to the complex nature of some of the parenting strategies (time out, rewards etc.) the depth of the theme and the parents’ experiences are not likely to be represented by a single quote. At present, the descriptive nature of the results seems to prevent the study from adding a great deal to the literature beyond what is already known and does not capitalise on the rich qualitative data.

Thank you for these encouraging words and for stressing the need for a more interpretative results and discussion section. We have now placed quotes in table-format (Table 3) to accommodate this need. This way we could add more quotes for the different parenting practices without losing the structure within the main research results. Furthermore, the quotes were interpreted more thoroughly to move beyond the descriptive to the interpretative.

**Results**

**Time out - Page 11, lines 205-208:**

“Several parents voiced that, when their child flies into a temper, they put him/her in isolation for a few minutes until his/her fury has cooled down. Parents also acknowledged the importance of the general applicability of this practice. A time-out does not have to be restricted to the home setting, but can be used in every situation.”

**Giving as much freedom as possible - Page 12, lines 215-223:**

“‘Giving your child as much freedom as possible appropriate to his/her age’, was a practice mentioned by parents to raise physically active kids. Parents reported examples as letting their child choose the sport he/she wants to practice and permitting their child to cycle to school via the route they agreed upon. Offering simple choices like choosing between walking, cycling or riding a kick-scooter, was another way to make children more enthusiastic about the activity. Participants also stated that as a child gets older, you have to give him/her more freedom and responsibility. As a parent you can assist your child in choosing by giving advice, but eventually, the child has to make the decision.”

**Motivating your child - Page 13, lines 248-250**

“When children struggle to go to the sports club or youth movement, parents try to convince them of the positive characteristics of the activity. Furthermore, parents reported that children often have to be stimulated for doing PA.”
**Rules and agreements - Page 14, lines 266-268:**
“Two parents admitted they sometimes use TV as a means to be able to do the housekeeping. That way, children keep calm and parents can work undisturbed.”

**Monitoring - Page 14, lines 270-273:**
“The use of a kitchen timer or alarm clock was suggested as a practice to monitor screen time. When the alarm goes off, the child knows he/she has to stop and a discussion is prevented. By letting the child put on the kitchen timer him/herself, the child gets involved and listens more easily.”

**Availability - Page 16, lines 306-309:**
“Parents also reported the importance of having healthy food at home. When fruit and vegetables are available in their home, parents have the impression that children consume more of them. Therefore, a good planning of doing the groceries is considered essential.”

**Using dessert as a reward or punishing by withholding a dessert - Page 16, lines 318-320**
“Many parents use dessert as a reward for their child finishing his/her plate. They report that this rewarding motivates children to eat healthy food because they absolutely want a dessert. Also for good behavior, desserts are given by some parents.”

**Discussion**
Page 22, lines 365-371:
“Other parenting practices considered effective, were applying clear rules and agreements, being consistent and parental monitoring. Parents give their children as much freedom as possible (which is autonomy supporting), but simultaneously they impose the necessary limits by making clear agreements, monitoring the behavior of their child and being consistent when the child does not listen. These parenting practices provide structure to a child which fulfills both the principles of SCT and the fundamental need of feeling competent according to SDT [44,62].”

8. Discussion: The discussion links the findings to SDT and SCT. However I felt that there was some reason behind using SDT and SCT that has not been presented. It seems that all of the results found are supportive of these theories and are being use to persuade the reader about the theory in some way or for some reason. For example, Page 23, line 489 seems to suggest that this work is being used to develop a theory-based parenting intervention. If this is the case then links to the theories could be made clearer by stating how the knowledge and interpretation in terms of theory might inform intervention content but it is necessary to be transparent about this aim from the outset. It is also necessary to bolster the novelty in the findings and what it adds specifically to our knowledge of parenting strategies. Further, statements such as “this is right up the street of SDT” are not appropriate (P22, line 482).

It is correct that the current study is formative work to inform the content of a randomized-controlled trial. To be transparent about this aim from the outset, we have added the following to the paper:
Abstract (Background) - Page 2 lines 5-9
“This study explores perceived effective and ineffective parenting practices in difficult situations concerning raising healthy children and investigates their relationship with Self-Determination Theory (SDT) and Social Cognitive Theory (SCT). The current study is formative work to inform the content of a randomized controlled trial.”

Page 6, lines 102-109:
“The present study is situated at the developmental stage of the Intervention Mapping Protocol, a problem- and theory-driven protocol that was especially developed to guide the design of evidence-based intervention programs [55]. Since parents report the need for strategies to encourage their children to eat healthy foods and be more physically active [56], the information arising from the current study will be used to inform the content of a randomized controlled trial consisting of a parenting intervention aimed at promoting a healthy diet, PA, and less SB in primary schoolchildren.”

Page 26, lines 465-467:
“The information arising from this study will be used to inform the content of a randomized controlled trial consisting of a parenting intervention aimed at promoting a healthy diet, PA, and less SB in primary schoolchildren.”

Since SDT and SCT are two prominent theories in the parenting literature and a lack of theory-driven research is mentioned as a barrier to implement effective parenting interventions, the focus groups conducted in this study, took them into account. Furthermore, the second aim of this study was to investigate the relationship between parenting strategies and SDT and SCT. Therefore, following information was added:

Page 6, lines 97-100:
“Since several reviews conclude that a potential barrier to implement an effective parent-focused intervention is a lack of theory-driven research [11,53,54], a second aim of the current study is to investigate the relationship between the perceived effective and ineffective parenting practices and SDT or SCT.”

Page 10, lines 175-177:
“Since SDT and SCT are two prominent theories in parenting literature, the focus groups were conducted taking them into account.”

Page 21, lines 327-328:
“Furthermore, these perceived effective and ineffective parenting practices are situated within one or both theories (SDT or SCT).”

Lastly, the statement “this is right up the street of SDT” has been replaced by “this matches perfectly with the principles of SDT”.
9. The title does not read well, consider revising. Perhaps this is a question “what strategies do parents perceive as…”?

   Thank you for pointing this out. We had received a suggestion from the first reviewer and have now adjusted the title into: ‘What practices do parents perceive as effective or ineffective in promoting a healthy diet, physical activity, and less sitting in children: parent focus groups’

10. Page 3, line 54: A general point is to avoid referring to “evidence” in a vague manner, rather stating what the level/strength of the evidence is.

   We reported the evidence from literature mentioned in the background more clearly.

   Example of level of evidence reported - Pages 3-4, lines 46-49:
   “There is extensive evidence that parents influence their children’s personal behavioral determinants by shaping their attitudes and social norms and by enhancing their children’s self-efficacy in exhibiting a healthy lifestyle.”

11. Page 3, line 51. Please present evidence to support statements suggesting that PA is associated with prevention of cancer and diabetes among children. Is there not a lack of evidence for this as cancer and diabetes manifest later in life?

   The first part of the background concerning health consequences of childhood overweight and obesity has been changed to make statements more clear. Following information was added:

   Page 3, lines 35-43:
   “The benefits of a healthy diet, sufficient physical activity (PA) and limited sedentary behavior (SB) in children, have been well documented and include prevention of overweight and obesity, cardiovascular diseases, depression, fear, stress, poor self-image, and improvement of quality of life [1-5]. Despite these benefits, many children do not meet the recommendations for a healthy diet [6,7], sufficient PA [8] or limited SB [9]. Furthermore, children’s dietary patterns [10,11], PA [12,13] and SB [14] track from childhood into adolescence and adulthood. Therefore, consistently intervening in early years across settings, before an obesogenic lifestyle is deeply rooted, is needed [15].”

12. Page 4, line 70: Selected components from SDT are introduced here without definition (e.g., the three needs). Readers not familiar with the theory will find this difficult.

   As mentioned under comment 3, we have elaborated on the description of the theories to make their main aspects more comprehensible to readers not familiar with the theories.
Page 5, lines 73-76:
“Parenting practices as reacting empathetically, motivating, increasing the intrinsic value of an activity, applying clear rules and agreements, being consistent, modeling, monitoring and offering alternative activities with as much choice as possible, fulfill both the principles of SDT and SCT [41-46].”

Page 5, lines 78-85:
“According to SDT, all human beings have the fundamental need to feel related, competent, and autonomous in order to develop and function optimally [47]. Relatedness refers to the need to feel connected to others, to be a member of a larger community, to love and care and to be loved and cared for. The feeling of competence covers the belief that one has the means to control his or her own behaviors and is closely related to the concept of self-efficacy. Finally, the need for autonomy represents an individual’s inherent desire to act as the causal agent of one’s own life and act in harmony with one’s inner self [48].”

Page 5, lines 89-93:
“SCT on the other hand specifies the unending reciprocal interrelatedness of personal, physical and social environmental, and behavioral factors [50]. Key elements of SCT include outcome expectancies, perceived self-efficacy, social norms, behavioral skills, reinforcement, and environmental factors such as availability [51].”

13. Page 15, line 298. It is suggested that parents claimed that household chores are a valued alternative to screen-time for children, yet no data is presented to support this. I am not convinced that children would buy in to such a strategy and our research suggests that parents find it challenging to think of truly engaging and realistic home-based alternatives to screen-time (especially in bad weather or times of stress).

Thank you for this useful remark. Indeed, parents sometimes find it difficult to engage their children in household chores. We have therefore added the following part to the discussion section:

Page 24, lines 402-408:
“But, although some parents reported they involve their children in household chores as an alternative for screen-time, this seems to be challenging for other parents. Especially in times of stress, parents take the view that they can do household chores better and faster if they do them themselves without in involving their child [66]. How parents can truly engage their children in realistic home-based alternatives to screen time will be an interesting challenge for future interventions.”

14. Page 16, line 333. The authors discuss the use of the parent’s “tasting rule” as a form of obligation. Although I can see the authors point, an alternative interpretation is that this is
indicative of clear rules, structure and autonomy support. The family rule is that foods are at least tried. The child knows this rule and then has choice if they don’t like it to decline eating it. The end result is that the child is not obliged to eat anything that they do not like the taste of. I would suggest that this is not a purely controlling strategy.

We appreciate to hear this alternative interpretation. We added it to the discussion section on healthy diet.

Page 25, lines 436-441:
“On the other hand, when parents apply a ‘tasting rule’ which means that the child just tries the food but then has the choice whether or not to finish what is on his/her plate, this can also be seen as providing structure to a child (which fits to both SCT and SDT [44,62]). Furthermore, just tasting will not take away a child’s feeling of hunger and therefore does not undermine the child’s natural ability to respond to its satiety feeling and does not subvert the human need to feel autonomous.”