Author's response to reviews

Title: The influence of parents and home-life on preschoolers’ physical activity behaviours: A qualitative investigation of childcare providers’ perspectives

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Author's response to reviews: see over
Thank you for providing us with the positive feedback from your reviewers on the manuscript titled “The influence of parents and home-life on preschoolers’ physical activity behaviours: A qualitative investigation of childcare providers’ perspectives.” Please find enclosed our revised manuscript. We have considered and addressed both of the reviewers’ comments, as outlined below:

**REVIEWER 1**

**Introduction**

*I think the introduction is too long and I think it should be more specific and better structured. I would suggest summarizing and reorganizing the second, fourth and fifth paragraphs.*

- The authors have attempted to shorten the introduction as evidenced by the track changes used in the manuscript document. However, we were unable to cut out much content as the reviewer has requested the addition of new material in the introduction (as described below).

*In the second paragraph, I would suggest being more accurate. After describing the health benefits of physical activity, I would suggest describing the idea that many Canadian and international preschoolers are not engaging in appropriate amounts of physical activity for health benefits. After that, I would suggest reporting the data from the National Longitudinal Survey of Children and Youth (specific longitudinal data from Canada) and the data from the systematic review of 39 international studies (international data).*

- Paragraph 2, all of the requested information is presented in the order requested by the reviewer with the addition of a manuscript conducted by Tucker and Irwin. The authors feel it is important to leave this study in the introduction to provide the reader with an accurate picture of the variation present in measured physical activity levels among Canadian preschoolers.

*In the second paragraph I will also suggest describing early childhood as a key period of interest, because preschool years are potentially important transition periods and critical times for the formation of social skills, specifically learning to interact with others as well as learning to make choices, including those that influence physical activity behaviours.*
A statement has been added at the end of page 3, beginning of page 4, which outlines the preschool years as a potentially important transition time, as requested by the reviewer. The sentence now reads: “Given that activity levels have been found to decline with age,[10] and that the preschool years may be a transitional time for children moving from childcare to the school system, it is imperative that physical activity be encouraged and active lifestyles fostered among this young population.”

Regarding the fourth and fifth paragraphs, I would suggest describing more accurately the aim of this research study. This study took place within the context of a larger program of research and the focus of that research was not the home environment, so I would suggest describing the aim more accurately. I would suggest explaining that this research took place within the context of a larger program of research (References previous work) and the aims of that larger program. After that, I would suggest describing the strong emphasis and increased attention placed on the childcare setting as an important venue for supporting physical activity participation among children, the importance of childcare staff (perceptions and expectations) for caregivers and health professionals given the time children spend in daycare and the pivotal role childcare providers play in shaping preschoolers’ behaviours (parents have previously acknowledged their dependence on childcare staff to ensure their children are sufficiently active). The childcare staff emphasized the influence of parents and the home environment on the physical activity behaviours of preschoolers attending childcare (previous research), however the perspectives of childcare staff with regard to the role of parents and the home environment in increasing children’s physical activity has not been examined (aim of the study).

The authors believe that the fourth and fifth paragraph of the introduction currently follow the outline described above by reviewer 1. The authors discuss that this research was part of a larger study, what the goal of this larger research program was (i.e., to understand challenges to physical activity opportunities in childcare), and then this paragraph discusses that given the emphasis and attention placed on the childcare setting, this is an important venue to intervene. The authors then discuss the importance of understanding childcare providers’ perspectives, and that parents of preschoolers have previously acknowledged their reliance of these staff to ensure appropriate physical activity behaviours. We then finish the introduction with the purpose statement (page 4, last paragraph, and page 5, first paragraph). These authors follow the outline discussed by reviewer 1 and therefore, no changes were made.

**Methods**

I would suggest describing the recruitment, the participants, the focus groups and after that the data analysis.

These subheadings have been added to the method section, and the participant demographics have been moved from the Results section to the Methods section.
Recruitment:

How many childcare settings were in each organization?

- The number of childcare centres within each organization was added to the first paragraph of page 6, as stated, “Participating childcare staff were drawn from three organizations that ranged in the number of facilities within the city (i.e., 1, 22, and 13 centres across London).”

I would suggest reporting information regarding the first organization (public or not…) as it appeared for the second organization.

- All participating childcare organizations were public facilities, and this has been added on page 5, first paragraph of the Methods.

Is there any classification attending the SES levels of the areas where the childcare settings were placed?

- Unfortunately, we do not have SES information for the areas in which the childcare centres were located. However, participating facilities were drawn from diverse areas of the city, as outlined in the last paragraph on page 5.

Ethics Committee information as appeared in the manuscript.

- Ethical approval was obtained by the researchers at the home university and this is outlined at the top of page 7, “ethical approval for this study was obtained from the University of Western Ontario’s Office of Research Ethics.”

Participants

I would suggest describing participants’ characteristics in the methods section after the recruitment explanation. I would suggest using a table to summarize all the participants’ characteristics (in the manuscript Participant Demographics section data).

- The participant characteristics section has been moved to the methods section, following recruitment and before focus groups, as suggested by reviewer 1 (2nd paragraph on page 6). Because we only have limited demographic information on the participating childcare providers, the authors don’t feel it is appropriate to present this information in table format: 1. Because it would be an extremely small table, and 2. Because it would leave a 1 sentence paragraph on the participants.

Focus groups

I would suggest describing covered topics, place where the focus groups were conducted, used methodology, average time of duration…

- Location and duration of the focus groups are now presented under the subheading “focus groups” on page 6-7. A sentence on the covered topics was not added to the focus group paragraph because it is described on page 4 in the
introduction, as requested by reviewer 1 (i.e., aim of the study, includes a discussion of the topics covered). The methodology (semi-structured focus group are discussed in the next comment).

**Was it a semi-structured format?**

- Page 7, 2\textsuperscript{nd} paragraph – outlines that the focus groups followed a semi-structured format: “The focus groups each lasted between 1 and 1.5 hours and were facilitated by an experienced moderator and co-moderator using a semi-structured interview guide.”

Data Analysis

*I would suggest describing transcript analysis information (thematic analysis).*

- The data analysis section outlines how the researchers analyzed the data, as evidenced by the following statement (page 7, 3\textsuperscript{rd} paragraph), “Inductive content analysis was independently performed by three researchers using QSR NVivo 7. The researchers met after completing their individual analysis to compare and agree upon the identified themes that had emerged from the focus group data (as described by Miller & Crabtree).[25]” If the reader would like additional information regarding the methods and analysis of this work, the authors have directed the reader (page 7, 3\textsuperscript{rd} paragraph) to see the additional publications from this research which provide a more detailed account of the methodology, “Please see van Zandvoort et al. and Tucker et al. for a complete description of the study methods.[19;20]”

**Results**

*I would suggest describing in an introduction the themes that were developed from the data. After that I would suggest examining the themes one by one. I would suggest creating a complementary table for each theme with the information regarding the sub-themes and the qualitative evidences (instead of describing the qualitative evidences in the text).*

- An introductory paragraph has been added to the results section (page 8-9). The sub-themes have been presented throughout the results section, as suggested. A complementary table was not added as the authors believe keeping the quotes within the text provides a more accurate description and reflection of the conversations that were had with participants.

*For the first theme “Parents and home-environment as facilitators to physical activity” I would suggest these subthemes: role modelling, encouragement by enrolment in activities and supporting activity participation.*

- Page 9-10, these subheadings have been added to separate the themes captured under parent and home-life facilitators to physical activity.
For the second theme “Parents and home-environment as barriers to physical activity” I would suggest these subthemes: no encouragement of an active lifestyle outside of childcare hours or organized activities, time spent in screen-viewing behaviours and effects of home environments promoting no active activities.

- Two subthemes have been added to the “Parents and home-environment as barriers to physical activity” section of the results section: 1. Lack of Encouragement for Physical Activity, and 2. Screen Viewing Behaviours (Page 10-11).

For the third theme “Suggestions for improving preschoolers’ physical activity behaviours” I would suggest these subthemes: parents’ awareness and involvement in children’s physical activity (information, workshops…), parental involvement in physical activities with their children and partnership between childcare staff and parents.

- Headings have been added for the subthemes within the “Suggestions for improving preschoolers’ physical activity behaviours” section. Specifically, 1. Increasing Parent Awareness of the Benefits of Physical Activity, and, 2. Childcare Staff and Parental Partnerships to Support Physical Activity, are two subthemes which capture the information presented (page 12-14).

Discussion/Conclusion-
I would suggest describing the discussion and conclusion section according to the changes made in previous sections.

- While it is not possible to give attention to all of the subthemes within the discussion section, the key findings from this study are discussed within this section. Many of the subthemes are discussed throughout this section (e.g., childcare and parent partnerships, page 14; role modelling and parental involvement, page 15; screen viewing, page 16), and therefore, the discussion section, as currently written, meets the suggestion of reviewer 1.

* I would also suggest stating clearly the limitations of this research study.

- The authors include a limitations paragraph on pages 15-16 which outlines the drawbacks of this research.

Minor Essential Revision –
The authors usually refer to home-life and home environment as similar terms. Home environment may include the physical environment (residential, location, facilities, house characteristics …) and socio-cultural variables (family factors, lifestyle habits, rules…). I would suggest being more accurate regarding this terminology throughout all the manuscript.

- The authors defined home environment on page 4: “Moreover, the home environment itself (e.g., rules regarding activity, accessibility of play spaces, etc.) has also been acknowledged as impacting physical activity participation among
young children, accounting for 16% of the variance in physical activity levels.[18] Therefore, parental role modeling and the home environment are important influences on the physical activity behaviours of preschool-aged children." The authors have changed “home-life” to “home environment” in order to be consistent throughout the manuscript.

REVIEWER 2

The research question is well defined and the methodology is adequate to the purposes. In fact, hearing voices of caregivers through qualitative inquiries gives a unique understanding of caregiver perceptions.

This study contributes to the field of physical activity promotion among preschoolers, as mentioned by the authors, highlighted the importance of partnerships between parents and caregivers. Nonetheless, this important aspect that emerges from discussion needs more clarification. How these partnerships could be effective? Do parents need to be empowered to improve supportive home environment to active behaviors? These are two important aspects that need to be more elaborated in the discussion section.

- The authors have elaborated on each of these points in the discussion section (page 15). We have inserted the following sentences: “Having a better line of communication between the childcare staff and parents would allow these individuals to ensure their children, or the children they care for, are engaging in appropriate amounts of activity. Moreover, this communication will result in confirmation that their efforts are being continued and supported in the counter-environment (e.g., parents support of preschooler activity is extended to the childcare environment and vice versa). These partnerships might be maximized by providing educational material and resources for both parents and childcare staff to increase their confidence and comfort in supporting active behaviours among young children.”

Further Requirements

Further consideration of your manuscript is conditional on improvement of the English used. Please ensure particular attention is paid to the abstract.

- We have reviewed the abstract again and are confident with the use of the English language. All four authors’ primary language is English, and therefore, we have no hesitations in this regard.

RATS - Please revise your manuscript so that it conforms to RATS guidelines and please indicate in your cover letter how you have done this.

- This manuscript conforms to the RATS guidelines by: explicitly stating the research question, after justifying the need for this research based on previous research, described the study design, sample selection, recruitment, and data collection procedures, identified appropriate ethical approval, data analysis
undertaken, trustworthiness of the data (e.g., member checking), findings were presented in the context of participant quotes, and a discussion of important findings. We hope the inclusion of this information confirms our alignment with the RATS guidelines.

We hope that you find these changes appropriate and look forward to hearing from you. If you have any additional questions or comments, please do not hesitate to be in touch. We look forward to the opportunity to publish with BMC Public Health.

Warm regards,

Trish Tucker, PhD