

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	"A Little on the Heavy Side": A Qualitative Analysis of Parents' and Grandparents' Perceptions of Preschoolers' Body Weights
AUTHORS	Nowicka, Paulina; Eli, Karin; Howell, Kyndal; Fisher, Philip

VERSION 1 - REVIEW

REVIEWER	Katrina Turner University of Bristol
REVIEW RETURNED	06-Oct-2014

GENERAL COMMENTS	<p>I enjoyed reading this paper and I think the authors have some interesting data. However, I have some concerns which I have noted below.</p> <p>The title of the paper is 'When Does Obesity Become a Problem? A Qualitative Analysis of Parents' and Grandparents' Perceptions of Preschoolers' Body Weights'. I don't think this reflects the aim of the study, which was to examine mothers', fathers', and grandparents' perceptions of preschoolers' body sizes.</p> <p>On page 8, the authors write 'This paper focuses on the parents' and grandparents' perceptions of young children's body weights, with particular emphasis on overweight and obesity from a life course perspective, parental responsibility, and contexts in which parents and grandparents discuss preschoolers' body weights. The Introduction indicates why they wanted to focus on both parents and grandparents but it is not clear why they wanted to take a life-course perspective and focus on parental responsibility.</p> <p>The Abstract states that 'Parents' difficulties in perceiving children's weight status accurately pose a barrier for family-based obesity interventions; however, the factors underlying weight misinterpretation still need to be identified'. This statement is very true and because the authors knew whether or not each interviewee's child/grandchild was clinically overweight or obese, they were in a position to tell parents/grandparents this and explore why they did or did not agree with this finding. I view this as a huge strength to the study but one which is very under played, as the authors do not discuss how they presented this information to participants, how participants reacted and how the researchers explored their views of the child's BMI.</p> <p>Why were interviews videotaped? They are usually simply audio-taped.</p> <p>The authors state that one strength of the study was that it is the largest ever reported qualitative investigation of family members' perceptions. I agree, it is excellent that both parents and</p>
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	<p>grandparents were involved (although there is little indication that the accounts from parents were triangulated with those of grandparents, or that the study was designed in a way to enable this) but the key issue when reflecting on sample size in qualitative research is whether data saturation was reached, and this is not directly commented upon. In addition, when detailing weakness of the study, they say they did not have sufficient number of fathers to enable assessment of potential differences between fathers and mothers' perceptions, suggesting that saturation was not reached. Furthermore, the methods used to contact potential interviewees were limited to adverts in job seeker's sections of Craiglist (what is this?) and newspapers, and this will reduce the generalizability of the findings. In qualitative research, perhaps more important than sample size, is the diversity within the sample. For a study such as this, you would hope the authors had purposefully sampled participants and aimed for maximum variation in relation to factors which might have influenced their perceptions of preschoolers' weight. It is not clear whether or not participants were purposefully sampled.</p> <p>Introduction: this is clearly written and indicates the need for, and originality of, this study.</p> <p>Methods: Whilst I understand why they wanted to focus on a low income population, recruiting participants only via adverts published in the job seekers' sections of Craiglist and local newspapers, will have limited the generalizability of the findings. This is not commented upon in the Discussion, or within the list of weakness stated earlier.</p> <p>The authors note on page 6 that 'The study's main research aim was to evaluate the role of grandparents in the development of preschoolers' lifestyles early in life, such that the active involvement of grandparents in family life (defined as spending time with the grandchild at least twice a month) was the primary criterion for inclusion in the study. It is fine to nest a study/paper, within a larger study, but the authors need to reassure the reader that this study provide sufficient framework for the aims of the smaller study to be addressed.</p> <p>Were participants purposefully sampled or did they just interview everyone who contacted them about the study and agreed to take part? It is not clear.</p> <p>Sometimes it's not clear if they are talking about the parents and grandparents of the 'study' children or only about the parents and grandparents who were interviewed, e.g. when they say, more than half the parents were overweight or obese, do they mean over half the parents of the families recruited to the study or over half of the parents interviewed?</p> <p>They explain that they classified individuals as overweight or obese according to WHO criteria, and later on state that all participants had their height and weight measured. This information should be given together, if the measurements were taken in order to classify individuals. Also, authors should explain why these measurements were taken. If it was to allow them to explore participants' views of their child's/grandchild's classification, this should be stated.</p> <p>The questions listed on page 8 suggest the study aim was far more</p>
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	<p>than exploring parents and grandparents' perceptions of pre-schoolers' weights, e.g. they were also exploring participants' views of the implications of obesity and parental and grandparent responsibility. I appreciate the authors do not want a long aim but it would be good if they stated an aim that reflected more closely the areas they explored and present in the paper.</p> <p>They explain why a discourse analysis was undertaken, but why did they use a thematic approach?</p> <p>Was a software package, such as NVivo, used to support analysis of the data? If not, how did they manage the process of coding and retrieving chunks of data?</p> <p>Did they triangulate the accounts given by parents and grandparents in the same family and, if they did, how did they do this?</p> <p>Results: I find the results interesting and enjoyed reading the quotes within the tables.</p> <p>Having explained on page 9 that the tables include participant quotes from each thematic category and constituent theme, this information should then not be given again at the top of each table in the table heading. Keep table headings short and clear.</p> <p>On page 10, the sentence 'None of the participants used the words 'obese' or 'overweight' to describe the pre-schoolers whom the growth charts defined as such', indicates that parents and grandparents were informed about whether or not their child/grandchild had been categorised as normal weight, overweight or obese. To me, parents' reaction to this news, and the reasons why they did or did not agree with it, or used terms other than obese or overweight to describe the child's weight, should be clearly detailed. It might have been that interviewees did recognise their child was overweight but chose to use less stigmatising terminology. The authors do not detail how parents/grandparents reacted to this information, whether participants agreed or disagreed with these classifications and the rationale behind their thinking. These data would have provided the insights need to explain parental misconception about preschoolers' weight. I would like to see much more on this. Also, in the methods, it should be stated when parents and grandparents were told this information. Was it just prior to interview?</p> <p>Page 11 – 'unexplained' weight gain. Perhaps described as unexplained by the parent but might not be described as such by someone else. It should be clearer if this was the term used by the interviewee.</p> <p>Page 12 – they write 'The decision to engage in discussion about children's body weights was context dependent. Participants said they discussed their children's or grandchildren's body weights with them only if the children themselves raised the topic.' I don't think this is clear from the quotes they have presented.</p> <p>Page 12 – not sure what is meant by "comfortable' behaviors as signalling a lack of concern with body image'. The authors tend to write 'parents avoided xxx', 'grandparents avoided xxx' etc implying that all parents and all grandparents had</p>
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	<p>said the same thing. I don't think it is necessary to always say some, a few, most etc., to give some sense of how many participants expressed a view but I do think here it gives the impression that there was little variation within the data (which some of the quotes suggest was not the case), that the analysis was not particularly detailed or that 'deviant' cases were not identified.</p> <p>Discussion: How do the authors know that participants did not use certain words as euphemisms (page 13) and they did not see their child/grandchild as overweight? There is no evidence to suggest that the authors directly asked parents if they agreed or disagreed with the classification of their child's weight, according to the charts.</p> <p>The authors could have explored how a 'visibly overweight' pre-schooler might look to a parent or grandparent. Page 14 – the authors say, most participants did not link percentiles with the categories of overweight and obese. Did the authors not link these when telling participants about their child's/grandchild's BMI? In the Methods, the authors should detail exactly what information was given to parents, when it was given and how it was given.</p> <p>Page 15, the authors write 'As previous studies have shown, parental comments about body weight are associated with body dissatisfaction and reduced self-esteem in children²⁸⁻³⁰, such that the participants' stance on avoiding 'weight talk' with children was positive and should be encouraged'. For intervention to occur, the child may need to know there is a problem. Thus, should we not be aiming to identify how parents and practitioners can discuss weight with a child in a way that is supportive and protects the child's self-esteem?</p> <p>Page 16 – the strengths and weaknesses of the study. The authors note not interviewing the children was a weakness, but doing so would not have fitted with the aim of the study, which focused on the views of parents and grandparents. What was a weakness was the recruitment of participants via a single route, i.e. adverts. The authors also comment that some families only had one or two grandparents participating. I don't think details are given in the methods or results about the number of parents or grandparents taking part from each of the 16 families included in the study.</p> <p>I have inserted all my comments above, and have attached a Word version of them. I hope the authors find them useful in revising their manuscript. I think it has the potential to be an interesting paper.</p>
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REVIEWER	Kathryn Parkinson Newcastle University, UK
REVIEW RETURNED	13-Oct-2014

GENERAL COMMENTS	<p>This article adequately describes a study, which does not add greatly to the field - it does though add substance to the evidence already in the literature.</p> <p>This paper describes parents and grandparents' view on child weight. It uses a qualitative approach, adding to the literature base on this topic predominantly based on quantitative data. Below are</p>
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	<p>comments that should be addressed:</p> <p>The tables in the paper in my view are too long; the examples need to be focused on and illustrate the main points being made.</p> <p>The first part of the title does not seem to me to reflect the focus of the paper.</p> <p>Introduction:</p> <p>Page 5 - First paragraph, last line: 'weights' should be singular 'weight'</p> <p>Page 6 – First paragraph, second line –It maybe that other authors are aware of the importance of other care givers, other than mothers, but were unable to access their views – as written it suggests other authors do not acknowledge the importance of fathers and grandparents when I think the authors mean data from these caregivers are not collected/reported.</p> <p>Page 6 – First paragraph, Lines 4-6 – the authors discuss 'treatment'. Would such work also be useful for prevention?</p> <p>Page 6 – First paragraph, Line 9 – the authors state that 'obesity remains high among families with low SES'....Do they mean that it is a particular issue for this group rather than suggest it is not an issue</p> <p>Methods:</p> <p>Page 6 – Second paragraph, Line 3 – What is Craigslist? An explanation is needed for an international audience.</p> <p>Page 7 – Lines 3-12 – I feel this paragraph would be better placed in the 'Results' section. Also acronyms i.e. 'BMI' should be explained in full at first time of mention. Also relevant for WHO.</p> <p>Page 7 – Line 17 – the authors state that participants completed a comprehensive sociodemographic questionnaire- more detail on the type of questions asked/indicators should be provided Is this a pre-existing questionnaire which has been reliably used in similar populations? Also, the authors state that participants had their height and weight measured prior to interview? Why was this and could this have impacted upon their responses during the interview?</p> <p>Results:</p> <p>The results are presented in a clear way using tables. However, given that that the aim of the study was to also look at fathers' and grandparents' views it would have been useful to compare these to mothers' views and examine how/if they differ? I would have liked to have seen more information on the differences in responses, if any, between mothers, fathers and grandparents. I see this is described in the Discussion but it is also important to be described in the Results.</p> <p>Discussion:</p> <p>Page 13- Paragraph 2, Line 8 –this sentence needs rewording. It needs to be clear that the descriptions the participants used were 'miniatures of their parents' and 'contestants on The Biggest Loser'.</p> <p>Page 14 – Paragraph 1, Line 10- '...participants were aware of the health risks....' –does this relate to adulthood as on line 6 it states participants 'did not name immediate health risks'.</p> <p>Page 15 –Paragraph 2, Line 1-2 – '...important gaps between clinical and lay PERCEPTIONS of childhood obesity' – do the authors mean...between clinical DEFINITIONS and lay perceptions? The evidence is that health professionals' ability to recognise overweight and obesity in children is also limited. Th</p> <p>Page 16, Line 4 - ...present IN more than 50% of children....., rather than ...present AT more than 50% of children.....</p> <p>Tables:</p> <p>Tables 3, 4 and 5 need table legends.</p>
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VERSION 1 – AUTHOR RESPONSE

Reviewer 1 comments bmjopen-2014-006609

R1: The title of the paper is 'When Does Obesity Become a Problem? A Qualitative Analysis of Parents' and Grandparents' Perceptions of Preschoolers' Body Weights'. I don't think this reflects the aim of the study, which was to examine mothers', fathers', and grandparents' perceptions of preschoolers' body sizes.

Response: We have now changed the title of the paper to be more reflective of the aims of the study.

R1: On page 8, the authors write 'This paper focuses on the parents' and grandparents' perceptions of young children's body weights, with particular emphasis on overweight and obesity from a life course perspective, parental responsibility, and contexts in which parents and grandparents discuss preschoolers' body weights. The Introduction indicates why they wanted to focus on both parents and grandparents but it is not clear why they wanted to take a life-course perspective and focus on parental responsibility.

Response: We thank the reviewer for these comments. We focused on parental responsibility as previous research has flagged parental perceptions of having little control over children's body weights (e.g. because they perceive genetics as the main factor determining body weight) as potentially limiting for obesity interventions; we now refer to this background in the introduction. We originally referred to 'a life-course perspective' in order to highlight the timeline constructs that emerged in the study (i.e. parents' and grandparents' ideas about when obesity becomes a problem in childhood and adulthood); we have now removed our reference to 'life-course perspective', as it might be confusing to readers.

R1: The Abstract states that 'Parents' difficulties in perceiving children's weight status accurately pose a barrier for family-based obesity interventions; however, the factors underlying weight misinterpretation still need to be identified'. This statement is very true and because the authors knew whether or not each interviewee's child/grandchild was clinically overweight or obese, they were in a position to tell parents/grandparents this and explore why they did or did not agree with this finding. I view this as a huge strength to the study but one which is very under played, as the authors do not discuss how they presented this information to participants, how participants reacted and how the researchers explored their views of the child's BMI.

Response: The weight and height of each child were measured in connection prior to the interviews, but BMI was calculated after the interviews took place. Thus, in many cases, the child's precise weight status (normal weight/overweight/obese) was unknown to the interviewers and to the participants, and only two family members stated explicitly that they knew their child was above normal weight. The non-disclosing of the children's weight statuses was part of the study's design, and was meant to avoid biasing the interview process. The interview schedule was designed to identify the factors underlying parents' and grandparents' weight misinterpretation through an exploratory approach across the sample, rather than directly seek the reaction of participants whose preschoolers had overweight or obesity.

R1: Why were interviews videotaped? They are usually simply audio-taped.

Response: We chose to employ videotaping to capture participants' gestural reactions to questions, alongside their verbal responses; this improved the quality of the transcriptions.

R1: The authors state that one strength of the study was that it is the largest ever reported qualitative investigation of family members' perceptions. I agree, it is excellent that both parents and grandparents were involved (although there is little indication that the accounts from parents were triangulated with those of grandparents, or that the study was designed in a way to enable this) but the key issue when reflecting on sample size in qualitative research is whether data saturation was reached, and this is not directly commented upon. In addition, when detailing weakness of the study,

they say they did not have sufficient number of fathers to enable assessment of potential differences between fathers and mothers' perceptions, suggesting that saturation was not reached. Furthermore, the methods used to contact potential interviewees were limited to adverts in job seeker's sections of Craigslist (what is this?) and newspapers, and this will reduce the generalizability of the findings. In qualitative research, perhaps more important than sample size, is the diversity within the sample. For a study such as this, you would hope the authors had purposefully sampled participants and aimed for maximum variation in relation to factors which might have influenced their perceptions of preschoolers' weight. It is not clear whether or not participants were purposefully sampled.

Response: This study is part of a larger study, whose aim was to examine communication about lifestyle choices between the parents and grandparents of preschoolers. Given this aim, a main criterion for inclusion was the involvement of at least one parent and one grandparent. We therefore looked for data saturation across the two subsamples (parents: n = 22; grandparents: n = 27), rather than the gendered sub-subsamples (e.g. mothers and fathers). Relying on previous research concerning data saturation and sample sizes in qualitative research (Guest et al 2006), our subsample sizes were adequate to ensure saturation. We now comment on saturation in the manuscript.

As middle-class families are usually more willing to participate in research on childhood obesity, we chose to target families of low socioeconomic status; we therefore advertised the study in the job seekers' sections of Craigslist, the United States' most popular classifieds website. We have now added more information about Craigslist to the methods section.

R1: Introduction: this is clearly written and indicates the need for, and originality of, this study.

Response: We thank the reviewer for this comment.

R1 Methods:

R1: Whilst I understand why they wanted to focus on a low income population, recruiting participants only via adverts published in the job seekers' sections of Craigslist and local newspapers, will have limited the generalizability of the findings. This is not commented upon in the Discussion, or within the list of weakness stated earlier.

Response: We now address this limitation in the Discussion.

R1: The authors note on page 6 that 'The study's main research aim was to evaluate the role of grandparents in the development of preschoolers' lifestyles early in life, such that the active involvement of grandparents in family life (defined as spending time with the grandchild at least twice a month) was the primary criterion for inclusion in the study. It is fine to nest a study/paper, within a larger study, but the authors need to reassure the reader that this study provide sufficient framework for the aims of the smaller study to be addressed.

Response: While investigating communication about food and physical activity among parents and grandparents of preschoolers was the main aim of the study, the participants' perceptions of children's body weights were essential to the study. All participants answered several questions about this topic, resulting in rich and unique material. Given this, we found that this topic merited dedicated discussion, apart from the larger study. We now comment on this in the introduction.

R1: Were participants purposefully sampled or did they just interview everyone who contacted them about the study and agreed to take part? It is not clear.

Response: We now clarify in the methods section that all families who contacted the research coordinator and who fulfilled the criteria were included. The sample was purposive insofar as we targeted families of lower socioeconomic status in the recruitment process.

R1: Sometimes it's not clear if they are talking about the parents and grandparents of the 'study' children or only about the parents and grandparents who were interviewed, e.g. when they say, more than half the parents were overweight or obese, do they mean over half the parents of the families

recruited to the study or over half of the parents interviewed?

Response: We now clarify that the data refer only to the parents and grandparents who were interviewed. In single-parent families, we collected only the data pertaining to the parent who was interviewed. Likewise, in families with an incomplete set of grandparents, we only collected the data pertaining to the grandparents who were interviewed.

R1: They explain that they classified individuals as overweight or obese according to WHO criteria, and later on state that all participants had their height and weight measured. This information should be given together, if the measurements were taken in order to classify individuals. Also, authors should explain why these measurements were taken. If it was to allow them to explore participants' views of their child's/grandchild's classification, this should be stated.

Response: We have now brought together our statements regarding WHO weight classifications and the measuring of participants' weights and heights in the Results section. We also explain that the measurements were taken in order to contextualize the participants' stated perceptions of and attitudes towards body weights and pertinent lifestyle factors.

R1: The questions listed on page 8 suggest the study aim was far more than exploring parents and grandparents' perceptions of pre-schoolers' weights, e.g. they were also exploring participants' views of the implications of obesity and parental and grandparent responsibility. I appreciate the authors do not want a long aim but it would be good if they stated an aim that reflected more closely the areas they explored and present in the paper.

Response: We now clearly state that the study also aims to explore participants' views of parental responsibility for childhood obesity.

R1: They explain why a discourse analysis was undertaken, but why did they use a thematic approach?

Response: We chose a thematic analysis approach to identify patterns in the participants' stated perceptions across the sample. We now clarify this in the methods section.

R1: Was a software package, such as NVivo, used to support analysis of the data? If not, how did they manage the process of coding and retrieving chunks of data?

Response: We did not use a software package to support the analysis of the data. While we considered using NVivo, we found that we were able to code and retrieve data effectively using a word processing program (Microsoft Word), through which we established a system of searchable codes and keywords, and conducted blinded and comparative coding.

R1: Did they triangulate the accounts given by parents and grandparents in the same family and, if they did, how did they do this?

Response: We triangulated the accounts of parents and grandparents in the same families through assigning each participant an identification number which allowed us to place him or her within a particular family. During the process of coding, we clustered responses from members of the same family in order to compare their accounts and check for any discrepancies.

R1 Results:

R1: I find the results interesting and enjoyed reading the quotes within the tables.

Response: We appreciate this comment.

R1: Having explained on page 9 that the tables include participant quotes from each thematic category and constituent theme, this information should then not be given again at the top of each table in the table heading. Keep table headings short and clear.

Response: We agree that the headings should be short and clear and have revised them accordingly.

R1: On page 10, the sentence 'None of the participants used the words 'obese' or 'overweight' to describe the pre-schoolers whom the growth charts defined as such', indicates that parents and grandparents were informed about whether or not their child/grandchild had been categorised as normal weight, overweight or obese. To me, parents' reaction to this news, and the reasons why they did or did not agree with it, or used terms other than obese or overweight to describe the child's weight, should be clearly detailed. It might have been that interviewees did recognise their child was overweight but chose to use less stigmatising terminology. The authors do not detail how parents/grandparents reacted to this information, whether participants agreed or disagreed with these classifications and the rationale behind their thinking. These data would have provided the insights need to explain parental misconception about preschoolers' weight. I would like to see much more on this. Also, in the methods, it should be stated when parents and grandparents were told this information. Was it just prior to interview?

Response: As detailed earlier, neither the interviewers nor the participants were informed about the children's body weight statuses. We apologize again that our explanation of this was not clear enough, and we hope our rewording clarifies it.

R1: Page 11 – 'unexplained' weight gain. Perhaps described as unexplained by the parent but might not be described as such by someone else. It should be clearer if this was the term used by the interviewee.

Response: We now clarify that this was the interviewee's perception.

R1: Page 12 – they write 'The decision to engage in discussion about children's body weights was context dependent. Participants said they discussed their children's or grandchildren's body weights with them only if the children themselves raised the topic.' I don't think this is clear from the quotes they have presented.

Response: None of the parents or grandparents directly initiated discussion about their preschoolers' weight; we now clarify that the quotes presented in the Theme 9 table all refer to situations where weight discussions were initiated by the children.

R1: Page 12 – not sure what is meant by "comfortable' behaviors as signalling a lack of concern with body image'.

Response: We agree that this is not clear from the text, thank you for pointing this out. The word 'comfortable' was used by several participants to indicate that their preschoolers were not self-conscious about their bodies, and thus had no concern with body image. We now state this clearly.

R1: The authors tend to write 'parents avoided xxx', 'grandparents avoided xxx' etc implying that all parents and all grandparents had said the same thing. I don't think it is necessary to always say some, a few, most etc., to give some sense of how many participants expressed a view but I do think here it gives the impression that there was little variation within the data (which some of the quotes suggest was not the case), that the analysis was not particularly detailed or that 'deviant' cases were not identified.

Response: We agree with this comment, and have now clarified these statements where appropriate.

R1 Discussion:

R1: How do the authors know that participants did not use certain words as euphemisms (page 13) and they did not see their child/grandchild as overweight? There is no evidence to suggest that the authors directly asked parents if they agreed or disagreed with the classification of their child's weight, according to the charts.

Response: We have now modified this statement to include the possibility that some parents and grandparents used certain words euphemistically; however, we also explain that, given some participants' statements, in which they explained why they used these words, it appears they did not use these words euphemistically. This is consistent with findings from other studies (Jain et al 2001).

R1: The authors could have explored how a 'visibly overweight' pre-schooler might look to a parent or grandparent.

Response: That is a good point on which we have now expanded in the text.

R1: Page 14 – the authors say, most participants did not link percentiles with the categories of overweight and obese. Did the authors not link these when telling participants about their child's/grandchild's BMI? In the Methods, the authors should detail exactly what information was given to parents, when it was given and how it was given.

Response: No information about child's weight status was given to the families, before or after the interviews. This has been clarified.

R1: Page 15, the authors write 'As previous studies have shown, parental comments about body weight are associated with body dissatisfaction and reduced self-esteem in children, such that the participants' stance on avoiding 'weight talk' with children was positive and should be encouraged'. For intervention to occur, the child may need to know there is a problem. Thus, should we not be aiming to identify how parents and practitioners can discuss weight with a child in a way that is supportive and protects the child's self-esteem?

Response: We agree with the reviewer. Some very interesting research has been done in this field recently. We have added and commented on an appropriate reference.

R1: Page 16 – the strengths and weaknesses of the study. The authors note not interviewing the children was a weakness, but doing so would not have fitted with the aim of the study, which focused on the views of parents and grandparents. What was a weakness was the recruitment of participants via a single route, i.e. adverts. The authors also comment that some families only had one or two grandparents participating. I don't think details are given in the methods or results about the number of parents or grandparents taking part from each of the 16 families included in the study.

Response: Thank you for pointing this out; we have modified the limitations paragraph to exclude our statement concerning interviewing the children. The details about the number of parents or grandparents from each of the 16 families have been added to the Methods section. We have also added a statement concerning the method of recruitment to the limitations section.

R1: I have inserted all my comments above, and have attached a Word version of them. I hope the authors find them useful in revising their manuscript. I think it has the potential to be an interesting paper.

Response: We thank the reviewer again for a careful reading of our paper and the many thoughtful comments that will strengthen the presentation of the data and analysis.

Reviewer 2 comments bmjopen-2014-006609

R2: This paper describes parents and grandparents' view on child weight. It uses a qualitative approach, adding to the literature base on this topic predominantly based on quantitative data. Below are comments that should be addressed:

The tables in the paper in my view are too long; the examples need to be focused on and illustrate the main points being made.

Response: We have abbreviated the tables as requested.

R2: The first part of the title does not seem to me to reflect the focus of the paper.

Response: We have now changed the first part of the title to reflect the focus of the paper more accurately.

R2 Introduction:

R2: Page 5 - First paragraph, last line: 'weights' should be singular 'weight'.

Response: This has been changed.

R2: Page 6 – First paragraph, second line –It maybe that other authors are aware of the importance of other care givers, other than mothers, but were unable to access their views – as written it suggests other authors do not acknowledge the importance of fathers and grandparents when I think the authors mean data from these caregivers are not collected/reported.

Response: We have now reworded this statement to clarify that this is a matter of data collection and reporting, rather than acknowledgment.

R2: Page 6 – First paragraph, Lines 4-6 – the authors discuss 'treatment'. Would such work also be useful for prevention?

Response: We thank the reviewer for emphasizing prevention. We have added a statement about the importance of developing positive communication between family members about children's eating and body sizes to the prevention of body dissatisfaction and disordered eating.

R2: Page 6 – First paragraph, Line 9 – the authors state that 'obesity remains high among families with low SES'....Do they mean that it is a particular issue for this group rather than suggest it is not an issue.

Response: With this statement, we mean that obesity has higher prevalence among families of lower socioeconomic status.

R2 Methods:

R2: Page 6 – Second paragraph, Line 3 – What is Craigslist? An explanation is needed for an international audience.

Response: We now provide a brief explanation of Craigslist.

R2: Page 7 – Lines 3-12 – I feel this paragraph would be better placed in the 'Results' section. Also acronyms i.e. 'BMI' should be explained in full at first time of mention. Also relevant for WHO.

Response: We have moved the paragraph and the acronyms have been explained.

R2: Page 7 – Line 17 – the authors state that participants completed a comprehensive sociodemographic questionnaire- more detail on the type of questions asked/indicators should be provided Is this a pre-existing questionnaire which has been reliably used in similar populations? Also, the authors state that participants had their height and weight measured prior to interview? Why was this and could this have impacted upon their responses during the interview?

Response: We have added details about the sociodemographic questionnaire, and stated that it is routinely used in all research studies at the Oregon Social Learning Center. We have also added an explanation that the measurements of height and weight were not discussed during the interviews, and that participants' measurements were taken to contextualize their stated perceptions and attitudes to childhood obesity and pertinent lifestyle factors.

R2 Results:

R2: The results are presented in a clear way using tables. However, given that that the aim of the study was to also look at fathers' and grandparents' views it would have been useful to compare these to mothers' views and examine how/if they differ? I would have liked to have seen more information on the differences in responses, if any, between mothers, fathers and grandparents. I see this is described in the Discussion but it is also important to be described in the Results.

Response: We have now added these details to the Results.

R2 Discussion:

R2: Page 13- Paragraph 2, Line 8 –this sentence needs rewording. It needs to be clear that the

descriptions the participants used were ‘miniatures of their parents’ and ‘contestants on The Biggest Loser’.

Response: This sentence has been reworded.

R2: Page 14 – Paragraph 1, Line 10- ‘...participants were aware of the health risks....’ –does this relate to adulthood as on line 6 it states participants ‘did not name immediate health risks’.

Response: Yes, we now clarify that this relates to health risks in adulthood.

R2: Page 15 –Paragraph 2, Line 1-2 – ‘...important gaps between clinical and lay PERCEPTIONS of childhood obesity’ – do the authors mean...between clinical DEFINITIONS and lay perceptions? The evidence is that health professionals’ ability to recognise overweight and obesity in children is also limited.

Response: This is a great point, and we completely agree with the reviewer. The sentence has been modified accordingly.

R2: Page 16, Line 4 - ...present IN more than 50% of children....., rather than ...present AT more than 50% of children.....

Response: This has been corrected.

R2 Tables:

Tables 3, 4 and 5 need table legends.

The table legends have been added.

VERSION 2 – REVIEW

REVIEWER	Kathryn Parkinson Newcastle University, UK
REVIEW RETURNED	05-Nov-2014

GENERAL COMMENTS	The revised manuscript addresses the points raised in the review.
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REVIEWER	Katrina Turner University of Bristol
REVIEW RETURNED	05-Nov-2014

GENERAL COMMENTS	<p>I have answered no to two of the questions above because I query what the authors mean by weight misinterpretation when they have not provided participants with information about the child's weight status. It is not clear in the paper when or if families and researchers were informed about the child's weight.</p> <p>I have also attached a document detailing points which I think need to be addressed before the paper is published.</p> <p>The authors have addressed most of the points I made in my initial review of their article. However, there are some outstanding issues which I think should be addressed before the paper is published.</p> <p>1) In my initial review I wrote the following: <i>The Abstract states that ‘Parents’ difficulties in perceiving children’s weight status accurately pose a barrier for family-based obesity interventions; however, the factors underlying weight misinterpretation still need to be identified’. This</i></p>
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	<p><i>statement is very true and because the authors knew whether or not each interviewee's child/grandchild was clinically overweight or obese, they were in a position to tell parents/grandparents this and explore why they did or did not agree with this finding. I view this as a huge strength to the study but one which is very under played, as the authors do not discuss how they presented this information to participants, how participants reacted and how the researchers explored their views of the child's BMI. The authors have now explained that the interviewer and the participants were not told the study child's BMI prior to interview. I think this is a real missed opportunity and would like the authors to reflect upon whether future research should do this and what potential benefits and challenges this would bring. In addition, if they did not inform participants of the child's BMI, how do they know parents and grandparents were misinterpreting the child's weight? What do they mean by weight misinterpretation?</i></p> <ol style="list-style-type: none"> 2) The authors have now explained what Craiglist is in the main body of the text but it is not clear in the abstract. Could they replace in the Abstract 'sections of Craiglist' with 'sections of a classified website'? 3) In the abstract they say adverts about the study were placed in newspapers (plural). In the article they say in a newspaper (singular). Which was it? 4) The authors have now explained that they looked for data saturation across parents and grandparents. They could comment in the Discussion whether they actually reached data saturation. 5) In their response to my initial question about data saturation, they argue that they did not reach saturation between gendered-subsamples, i.e. father and mothers, because the data presented in this paper was taken from a study which focused on parents and grandparents. This is one way in which the larger study affected this study and should be acknowledged in the paper. 6) In response to my point about reassuring the reader that the larger study provided sufficient framework for the aims of the smaller study, I think what they wrote in their response letter to me was more convincing that what they have inserted into the paper. Please revise the text in the paper, so it makes the points given in the letter 7) It should be clear that the trained researcher who did the measurements was not the individual who did the interviews. 8) In my question about whether they triangulated accounts, the authors say they clustered responses. What is meant by clustered responses? 9) Since the child's BMI was not calculated until after the interviews and was not shared with participants, the sentence 'None of the participants used the words 'obese' or 'overweight' to describe the pre-schoolers whom the growth charts defined as such', is confusing. Should it not be 'None of the participants used the words 'obese' or 'overweight' to describe the pre-schoolers who were later identified as such'. 10) In my initial letter, I wrote <i>'Page 15, the authors write 'As previous studies have shown, parental comments about body</i>
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	<p><i>weight are associated with body dissatisfaction and reduced self-esteem in children, such that the participants' stance on avoiding 'weight talk' with children was positive and should be encouraged'. For intervention to occur, the child may need to know there is a problem. Thus, should we not be aiming to identify how parents and practitioners can discuss weight with a child in a way that is supportive and protects the child's self-esteem?' The authors have now added a reference saying that a recent study has proposed a set of guidelines to help parents discuss body image and eating with children, but the comment 'that the participants' stance on avoiding 'weight talk' with children was positive and should be encouraged' still stands. This comment should be replaced with something along the lines of 'As previous studies have shown parental comments about body weight are associated with body dissatisfaction and reduced self-esteem in children, the participants' stance on avoiding 'weight talk' with children is understandable and perhaps appropriate in some contexts. However, for changes to occur, the child might need to be aware that they are overweight and thus parents and grandparents need to identify ways in discussing the child's weight which are supportive. A recent study etc'</i></p> <p>11) In the paper the authors have now written 'The weight status using height and weight was not calculated prior the interview, thus the interviewer and the family members were not informed about the child's or family members' weight status.' Is that that the interviewer and family members were not informed prior to interview or ever? The covering letter suggests families were never informed. It should be clear in the paper when, if ever, families, the interviewer and those involved in the analysis were informed of the child's weight category/BMI.</p> <p>12) Later in the paper the authors explain (page 11, tracked version) 'All the interviewed parents and grandparents as well as the preschooler in focus had their height and weight measured, without shoes and wearing only light clothing, by trained research staff prior to the interviews. These measurements were taken in order to contextualize the participants' stated perceptions of and attitudes toward childhood overweight/obesity and associated lifestyle factors'. When were participants' views contextualized using these data and by who? What was the benefit of doing this?</p> <p>13) The authors follow this text with 'The participants' and the children's BMI statuses were not calculated prior to the interviews, so as not to bias the interview process.' They have already explained (page 8) that BMI status was not calculated prior to interview.</p> <p>14) The following sentence could be simplified 'While the number of fathers was not high enough to enable an assessment of differences between fathers' and mothers' perceptions and attitudes, it is possible to say that the participants' responses were consistent across the sample, and no generational differences were observed between the parents' and the grandparents' perceptions of their preschoolers' body sizes.' For example. While the number of fathers was not high enough to enable an assessment of differences between fathers' and mothers' perceptions and attitudes, there did not appear to be</p>
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	<p>gender differences in participants' accounts. Furthermore, no generational differences were observed between the parents' and the grandparents' perceptions of their preschoolers' body sizes.'</p> <p>15) The authors have now indicated that deviant cases were identified but again the writing could be simpler, e.g. notably all parents, with the exception of two, avoided discussing their children's body weights etc.</p> <p>16) I appreciate my comments may mean the authors need to insert more text and that this might be challenging due to the journal's guidance on word count. However, the text on page 9 detailing what questions were asked could perhaps be placed within a box and the text on page 10 regarding who took part be given in a table.</p>
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VERSION 2 – AUTHOR RESPONSE

Reviewer 1:

The authors have addressed most of the points I made in my initial review of their article. However, there are some outstanding issues which I think should be addressed before the paper is published.

Response: We thank the reviewer for very thorough reading of our manuscript and the many comments that have helped us improve this manuscript. We have revised the manuscript as suggested, addressing the outstanding issues.

1) In my initial review I wrote the following: "The Abstract states that 'Parents' difficulties in perceiving children's weight status accurately pose a barrier for family-based obesity interventions; however, the factors underlying weight misinterpretation still need to be identified'. This statement is very true and because the authors knew whether or not each interviewee's child/grandchild was clinically overweight or obese, they were in a position to tell parents/grandparents this and explore why they did or did not agree with this finding. I view this as a huge strength to the study but one which is very under played, as the authors do not discuss how they presented this information to participants, how participants reacted and how the researchers explored their views of the child's BMI." The authors have now explained that the interviewer and the participants were not told the study child's BMI prior to interview. I think this is a real missed opportunity and would like the authors to reflect upon whether future research should do this and what potential benefits and challenges this would bring. In addition, if they did not inform participants of the child's BMI, how do they know parents and grandparents were misinterpreting the child's weight? What do they mean by weight misinterpretation?

Response: The main aim of the project was to study grandparental influence on preschoolers' lifestyle related behaviors and to assess whether a child's perceived weight status influenced grandparental behaviors. We therefore measured the weight status of parents, grandparents and children, but chose to emphasize the participants' perceptions of their preschoolers' body sizes, rather than their interpretations of the children's measured weights. We agree that it would be interesting, in future studies, to examine how parents and grandparents interpret young children's body weights when presented with weight as measured. In the present study, however, presenting the participants with the children's measured weight status might have biased the responses in which we were interested – namely, how the participants perceived the child's body size in their everyday lives. To clarify, by 'weight misinterpretation' we meant 'weight status misperception'; put another way, we meant that participants perceived the children's weight category as different from the category indicated by the

children's measured weight.

2) The authors have now explained what Craigslist is in the main body of the text but it is not clear in the abstract. Could they replace in the Abstract 'sections of Craigslist' with 'sections of a classified website'?

Response: We added "a classified website" but kept Craigslist because it is very well-known website among many North American European readers.

3) In the abstract they say adverts about the study were placed in newspapers (plural). In the article they say in a newspaper (singular). Which was it?

Response: Thank you for the careful reading. It was one newspaper; this has now been corrected in the abstract.

4) The authors have now explained that they looked for data saturation across parents and grandparents. They could comment in the Discussion whether they actually reached data saturation.

Response: We have now added a comment concerning data saturation to the discussion.

5) In their response to my initial question about data saturation, they argue that they did not reach saturation between gendered-subsamples, i.e. father and mothers, because the data presented in this paper was taken from a study which focused on parents and grandparents. This is one way in which the larger study affected this study and should be acknowledged in the paper.

Response: In the previous revision, we added the following comment: "Additionally, as several participants were single mothers, the number of fathers was not high enough to enable an assessment of differences between fathers' and mothers' perceptions and attitudes". Here, we acknowledged that neither this study nor the larger study had aimed to compare mothers' and fathers' responses.

6) In response to my point about reassuring the reader that the larger study provided sufficient framework for the aims of the smaller study, I think what they wrote in their response letter to me was more convincing than what they have inserted into the paper. Please revise the text in the paper, so it makes the points given in the letter.

Response: We have now revised the text in the paper accordingly.

7) It should be clear that the trained researcher who did the measurements was not the individual who did the interviews.

Response: Two researchers were involved in measurements and interviewing. In most cases, the same researcher who did the measurements also interviewed the families. However, this did not influence the study, as BMI was calculated only after the interviews took place.

8) In my question about whether they triangulated accounts, the authors say they clustered responses. What is meant by clustered responses?

Response: This means that each family was given its own code numbers, such that the responses within the same families were compared to assess convergences and divergences.

9) Since the child's BMI was not calculated until after the interviews and was not shared with participants, the sentence 'None of the participants used the words 'obese' or 'overweight' to describe

the pre-schoolers whom the growth charts defined as such', is confusing. Should it not be 'None of the participants used the words 'obese' or 'overweight' to describe the pre-schoolers who were later identified as such'.

Response: We have changed the sentence accordingly. However, we would like to point out that some parents mentioned they were aware that their child was in the overweight/obese category of the growth chart, yet still did not identify the child as overweight nor obese.

10) In my initial letter, I wrote 'Page 15, the authors write 'As previous studies have shown, parental comments about body weight are associated with body dissatisfaction and reduced self-esteem in children, such that the participants' stance on avoiding 'weight talk' with children was positive and should be encouraged'. For intervention to occur, the child may need to know there is a problem. Thus, should we not be aiming to identify how parents and practitioners can discuss weight with a child in a way that is supportive and protects the child's self-esteem?' The authors have now added a reference saying that a recent study has proposed a set of guidelines to help parents discuss body image and eating with children, but the comment 'that the participants' stance on avoiding 'weight talk' with children was positive and should be encouraged' still stands. This comment should be replaced with something along the lines of 'As previous studies have shown parental comments about body weight are associated with body dissatisfaction and reduced self-esteem in children, the participants' stance on avoiding 'weight talk' with children is understandable and perhaps appropriate in some contexts. However, for changes to occur, the child might need to be aware that they are overweight and thus parents and grandparents need to identify ways in discussing the child's weight which are supportive. A recent study etc'

Response: Thank you for this comment. We now clarify that although avoidance of 'weight talk' with children is positive in most cases, it is important that clinicians, parents, and grandparents identify supportive and sensitive ways of framing body weight when children undergo treatment for obesity.

11) In the paper the authors have now written 'The weight status using height and weight was not calculated prior the interview, thus the interviewer and the family members were not informed about the child's or family members' weight status.' Is that that the interviewer and family members were not informed prior to interview or ever? The covering letter suggests families were never informed. It should be clear in the paper when, if ever, families, the interviewer and those involved in the analysis were informed of the child's weight category/BMI.

Response: The families were never informed about the child's weight status.

12) Later in the paper the authors explain (page 11, tracked version) 'All the interviewed parents and grandparents as well as the preschooler in focus had their height and weight measured, without shoes and wearing only light clothing, by trained research staff prior to the interviews. These measurements were taken in order to contextualize the participants' stated perceptions of and attitudes toward childhood overweight/obesity and associated lifestyle factors'. When were participants' views contextualized using these data and by who? What was the benefit of doing this?

Response: Calculating the participants' and the children's weight status allowed the researchers who analyzed the data to assess whether parental/grandparental perceptions, attitudes, and behaviors may have differed according to their own, and the child's, measured weight status.

13) The authors follow this text with 'The participants' and the children's BMI statuses were not calculated prior to the interviews, so as not to bias the interview process.' They have already explained (page 8) that BMI status was not calculated prior to interview.

Response: We have now removed this sentence.

14) The following sentence could be simplified 'While the number of fathers was not high enough to enable an assessment of differences between fathers' and mothers' perceptions and attitudes, it is possible to say that the participants' responses were consistent across the sample, and no generational differences were observed between the parents' and the grandparents' perceptions of their preschoolers' body sizes.' For example. While the number of fathers was not high enough to enable an assessment of differences between fathers' and mothers' perceptions and attitudes, there did not appear to be gender differences in participants' accounts. Furthermore, no generational differences were observed between the parents' and the grandparents' perceptions of their preschoolers' body sizes.'

Response: This has been rewritten.

15) The authors have now indicated that deviant cases were identified but again the writing could be simpler, e.g. notably all parents, with the exception of two, avoided discussing their children's body weights etc.

Response: This has been rewritten.

16) I appreciate my comments may mean the authors need to insert more text and that this might be challenging due to the journal's guidance on word count. However, the text on page 9 detailing what questions were asked could perhaps be placed within a box and the text on page 10 regarding who took part be given in a table.

Response: Thank you for this comment. We have now put the questions into the box (Table 1).

VERSION 3 - REVIEW

REVIEWER	Katrina Turner University of Bristol
REVIEW RETURNED	20-Nov-2014
GENERAL COMMENTS	The authors have sufficiently addressed by second set of comments.