Reviewer’s report

Title: Overweight in children and its perception by parents: cross-sectional observation in a general pediatric outpatient clinic

Version: 0 Date: 27 Feb 2017

Reviewer: Olivier Drouin

Reviewer's report:

Background:

Page 3, line 22-25: Being overweight as a child, or even being at risk of becoming overweight (BMI > 85th percentile) is a predictor for overweight in adulthood.

The category being at risk of becoming overweight exists only for children a younger than 5.

Having a BMI >85th %ile for children 5 years or older is being overweight. This would gain in being clarified

Page 3, line 25-50: This section on the consequences of childhood obesity could be made more succinctly (and would be generally known to an audience of general pediatricians).

Page 3, line 57: This is a fragment of a sentence - no verb. Please review

Page 4, line 7: Needs to define OR (Odds ratio)

Page 4, line 10-15: I wouldn't say it is unclear, but rather a combination of both.

Objectives:

The objectives are very well defined. However, given he background presented, it appears that most of these questions have previously been answered, limiting the novelty of the proposed research. In addition the phrase "factors associated with childhood overweight" is extremely vague, knowing that there are genetic, behavioral, sociological and environmental factors associated with childhood obesity. Given that the study is limited in the types of factors examined, the objective should be narrowed accordingly. Finally, I wouldn't say that "little is known on the weight status of children under 3 years". At least in the North American context, several studies have examined this question. If this is an unknown data for Austria specifically, please amend the objective accordingly.

This investigation was furthermore intended to provide data on weight status of pediatric patients attending a general pediatric institution with resident doctors. - Why would you expect this to be different than any other pediatric primary care clinic?
Material and Methods

Page 5, line 27-30: "the treating doctors also had to complete several items". This is extremely vague. Please clarify. Also, if the fact that this was a resident-led pediatric practice is important to your analysis, please state it in the first paragraph of your methods.

Did you have any exclusion criteria besides age of the child and the parent?

Page 5, line 57: number of children visiting the kindergarten - Please explain why you consider this a marker of socioeconomic status

Where/when were the questionnaires administered to family? Before or after the appointment? I assume before, given the objectives of the study, but would need to be clarified.

Page 6, line 8-10: "For descriptive data pertaining to these variables see Table 1 and Table 2." - This sentence belongs to the results, not the methods

Page 6, line 15-17: "so parents who did not have enough knowledge of the German language were excluded." Exclusion criteria should be included in the first paragraph of your methods

Page 6, line 57: References to results table should only be made in the results section (not the methods)

Page 7, line 1: "children's overweight (recoded into a binary variable)" I assumed that the cutoff used to create this binary variable was the 90th percentile, but that would benefit from being clarified (page 6, line 20-30 leads us to think that more weight categories will be used later in the paper)

Page 7, lines 7-20: This section would benefit from being re-written for clarity

Results

Page 7, lines 7-20 : "Of the 670 parents asked to fill in the questionnaire 600 agreed to take part in the study and fulfilled the inclusion criteria." Would be useful to know how many refused and how many were rejected

Page 7, lines 50-55: "Only slight differences could be determined between boys and girls, with obesity being a bit more common in boys (3.5% vs. 2.8%) and overweight being more
commonly observed in girls (9.8% vs. 11.6%)." If those differences are statistically significant, please include p-values. If they are not, please state so.

Page 7, line 57 to Page 8 lines 12: Please consider putting those results in a table for ease of comparison. Also, figure 1 does not relate to those results.

Page 8, lines 27-35. Values should be reported, not only test statistics (p-value)

Page 8, lines 27-37. "While 62.8% of the children had at least one overweight parent, in 17.5% even both parents were overweight" Is this for overweight children only, or all children? Please specify.

Page 8, line 42: Please include a confidence interval to this odds ratio.

Page 8, lines 27-37: "Moreover, the mean maternal BMI was 23.8 and the mean paternal BMI was 26.3". Again, is this for overweight children only, or all children? Please specify.

Page 8, line 52: "No association of parental education level and overweight could be determined in this study." This data should be shown.

Page 9, line 7-12. "Trends (p 0.087) can be seen in comparing only children with children with at least one brother or sister. It seems that in only children more are classified as overweight, for obese children this was not seen." The word trends should not be used for not statistically significant data. Also, is having a sister or brother a risk factor for obesity, or is it having an overweight sibling?

Parental perception of children's weight status: This section would benefit from being presented in a table. Also, are those differences statistically significant? A kappa statistic for agreement between the two types of measurement would be useful.

Page 10, lines 20-30. Those p-values cannot be exactly zero. Maybe they are less than 0.01, but cannot be zero.

Discussion

The first and second paragraphs of the discussion mostly contain material that belongs to the introduction, not the discussion.

Page 11, lines 57 to Page 12, line 5. While this is true, it is very general and not novel and does not contribute much to the paper

While it seems to be true from the data that using parental report of height and weight would lead to mis-classification of weight status, how important is this finding knowing that most major
pediatric professional associations recommend objective measure of height and weight at well-child visit, a recommendation, unlike others, that a majority of pediatricians follow?

Page 13, line 3-7: "Correlations between reported data and data from direct measurement were much higher for weight and height (0.974 for weight, 0.964 for height) than for BMI (0.727)." This is not a matter of clinical relevance, but rather just a product of the formula to calculate BMI. Given that you did not ask parents' estimate of child's BMI, but rather estimates of height and weight only, only those two correlation coefficients are meaningful. Your correlation coefficient for BMI is a simply a mathematical result of the formula to calculate BMI from height and weight.

Table 2:
This table should not contain both covariates and outcomes (For example weight status is a covariate/predictor, whereas parental perception is an outcome). All covariates/predictor should be in a single table.

What is the kindergarten variable? How is it relevant to the current analysis?

How were those variables chosen? The introduction should be clearer about the choice. Possible predictors of childhood obesity (including behavior, environment, etc) could be there whereas some others (having a sibling, complications during pregnancy) are questionable.

In addition, misperception of height and weight should be allowed for, when prescribing drugs adapted to body weight. This is true only if drugs are prescribed by reported weight, rather than measured weight, which is rarely done in clinical practice.

Why are both Tables 1 and 2 presented twice?

Figure 1:
It is really difficult for readers to appreciate changes in surface area using pie chart. This information would ben better presented in either a table or bar chart format.

Figure 2:
Also very difficult to interpret. What is the main point of this figure? If it is to show the discrepancy between parents' perception and children BMI category, another format would better serve your argument. The Y axis maximum should be 100%
Figure 3:

Again, is this the best format for this figure? The Y axis maximum should be 100%

Where are the results of the section on the predictors of childhood overweight? Those should be either in a table or a graph.

Also missing are multivariate analyses for each of the three outcomes (predictors of overweight, agreement in perceived weight status, agreement in calculated BMI).

Overall comments:

Several sentences do not follow standard English syntax. Please consider referring to the the service of an editor or at least a person whose primary language is English.

There should not be sentences in the results that cannot be interpreted by the reader using the values in the text, table or graph. One of many example is the last sentence of the results "The person completing the questionnaire (mother and/or father or other persons) had no significant effect on the validity of the estimation of the children's weight and height."

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics
Quality of written English
Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited

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