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OPEN PEER REVIEW

Maternal Education is a Major Factor in Growth Regulation in Twins and Singletons

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1 Original submission

2 comments · 10 Mar 2024 – 10 Mar 2024

Associate Editor

MAJOR REVISION 10 Mar 2024

Dear EIC,
I thank the authors and express my appreciation to the researchers. The manuscript is a valuable piece of research. But some revisions are needed. The authors should revise it based on the comments. Also, minor changes should be made to the abstract:
The study design should be mentioned in the first line of the method section of the ABSTRACT.

Editor-in-Chief

MAJOR REVISION 10 Mar 2024

Dear Author,
Thank you for submitting the article. It needs some revision. Please revise it based on the reviewers' and AE's comments.

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Revision 1

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

REPLY TO REVIEWER 1

Reviewer 1:

Thank you for your valuable feedback on our manuscript. We appreciate your thorough review and have carefully considered all of your suggestions.

Question 1:

The keywords section does not match with mesh words. For example, instead of the word maternal education, the word “educational status, maternal” should be mentioned.

The word “singleton “should be targeted considering that it does not exist in mesh. It is suggested to use the word “growth retardation” in the keywords section.

Reply:

We have revised the keywords section accordingly to include "educational status, maternal" as per your recommendation.

We have deleted the word “singleton” and mention “growth in keywords section.

Question 2:

It seems that in line 54, it is more appropriate to use the term "anthropometric indices at birth" instead of the term "birth measurement".

Reply:

We have revised words "birth measurement" into "anthropometric indices at birth” as per your recommendation.

Question 3:

In line 76, the authors have mentioned that the variables were recorded in the first visit when the participants were 0 to 28 days old. While at the beginning of the method part, the minimum age of the participants was 8.6 months. If the authors mean the question of the mother's education during the newborn period It should be corrected.

Reply:

We have revised words “in the first visit when the participants were 0 to 28 days old” into “during newborn period” as per your recommendation.

Question 4:

The authors did not mention the inclusion and exclusion criteria. Is the underlying disease of children (for example, celiac.cf.) considered as an exclusion criterion?

Reply:

We have added the inclusion and exclusion criteria in the manuscript as per your recommendation.

The inclusion criteria for this study stipulated the utilization of all secondary data sources, provided that they were complete. Only datasets with comprehensive information were considered eligible for analysis.

The exclusion criteria for this study involved excluding incomplete datasets and outlier data points. Any secondary data that lacked comprehensive information or contained outliers were omitted from the analysis.

Question 5:

In the method section, it is mandatory to refer to all the investigated variables (weight, height, father's education, mother's education, father's and mother's occupation, family income, etc.).

Reply:

We have added Investigated variables as follow:

MaB (mother’s age at birth) refers to to the age of the mother at the time when she gave birth to the subject of this research. FaOccu (father’s occupation) refers to profession of the father at the time when the subject of this research was born. FaEdu (father’s education) refers to the level of education attained by the father at the time when the subject of this research was born. MOccu (mother’s occupation) refers to profession of the mother at the time when the subject of this research was born. MEdu (mother’s education) refers to the level of education attained by the mother at the time when the subject of this research was born. Family income refers to the total earnings or financial resources acquired by a household within a given month.

Question 6:

The twins were not affected by this decline,

Not that they did not participate in this decline!! (line 154).

Reply:

We have revised words “Twins, however, do not participate in this decline” to “Twins were not affected by this decline” as per your recommendation.

Question 7:

In the conclusion section, the authors have repeated the results. It should be revised.

Reply:

We have revised the conclusion: “Twins were shorter, lighter, and had a lower average BMI at birth than singletons. At birth, we found no apparent association between anthropometric measurements and SE variables in twins, such as parental education and occupation, family income, type of health insurance, and the number of siblings. However, this was different after birth, when maternal education started to gain a central position among the SE variables in children's growth” to

“Twins displayed lesser height, weight, and a lower mean BMI at birth compared to singletons. Initially, there seemed to be no clear link between anthropometric measures and socio-economic (SE) factors in twins, including parental education and occupation, family income, health insurance type, and number of siblings. However, this changed postnatally, as maternal education emerged as a significant SE factor influencing children's growth”.

Thank you for reviewing the manuscript, and I hope the answers and revisions that have been made will meet your expectations.

REPLY TO REVIEWER 2

Reviewer 2:

Thank you for your valuable feedback on our manuscript. We appreciate your thorough review and have carefully considered all of your suggestions.

Question 1:

Introduction:

The introduction provides a clear overview of the importance of the SEPE environment in human development, particularly focusing on its impact on growth. However, it could benefit from further elaboration on the specific research gap or question addressed by the study.

Reply:

We have added in the introduction “Conducting research on the growth of twins in Indonesia while considering social economic, political, and emotional factors is paramount for understanding the complex interplay of influences shaping their development. By examining how variables such as parental education, family income, access to healthcare, number of siblings and et cetera impact the growth trajectories of twins compared to singletons, this research can uncover disparities and inform targeted interventions to mitigate them. Such research not only enriches our understanding of twin development but also underscores the importance of holistic support systems to ensure the optimal growth and flourishing of twin children in Indonesia” before the hypothesis.

Question 2:

Objectives:

The objectives are well-defined, aiming to examine the growth of twins and singletons in relation to maternal education as a socio-economic variable. However, it would be helpful to specify the hypothesis or research questions guiding the investigation.

Reply:

We have added 3 hypotheses in background section.

Question 3:

Methods:

Data Collection: Using Nutritional Status Monitoring for Children under 5 Years Old in Bandung District ensures standardized data collection. However, details regarding sampling methods and representativeness could strengthen the methodological rigor.

Reply:

We have added in Methods section: “The study was conducted among children from 31 Sub-Districts of Bandung District, Indonesia, including urban and rural areas, who are required to participate in the Nutritional Status Monitoring for Children under 5 Years Old program at the Bandung District Health Office. This monitoring aims to collect information and monitor follow-up actions for the growth and development of healthy children in Bandung District. Screening/monitoring of infant growth and development is recommended to be conducted monthly. For children aged 12 to 24 months, it is recommended every 3 months, and for children

aged 24 months to 72 months, it is recommended every 6 months. Demographic data of parents and place of residence are also collected".

Question 4:

Statistical Analyses: The utilization of density plots, correlation plots, St. Nicolas House Analysis, and ANOVA is commendable for exploring associations between variables. However, more information on specific statistical tests conducted and adjustments made would enhance transparency.

Reply:

We have explained the statistical tests used in this research also investigated variables.

Question 5:

Conclusions:

The conclusions drawn are supported by the study findings, emphasizing the differences in birth measurements between twins and singletons and the role of maternal education in postnatal growth regulation.

- However, it would be valuable to discuss potential implications of the findings and suggest avenues for future research.

Reply:

We have added in conclusion: "These findings suggest potential implications for healthcare providers and policymakers, highlighting the importance of considering maternal education in

interventions aimed at improving early childhood growth among twins. Furthermore, future research could delve deeper into understanding the mechanisms through which maternal education influences growth outcomes in twins and explore additional social economic factors that may impact their development. Additionally, investigating the long-term effects of early growth disparities between twins and singletons on health and well-being outcomes could provide valuable insights for public health initiatives and clinical practice" as per your recommendation.

Thank you for reviewing the manuscript, and I hope the answers and revisions that have been made will meet your expectations.

REPLY TO ASSOCIATE EDITOR

Associate Editor 1:

Dear EIC,

Thanks to the authors and appreciation to the researchers. The manuscript is valuable research. But some revisions are needed. Authors should revise it based on comments. Also, minor changes should be done in abstract:

Study design should be mentioned in first line of method section of ABSTRACT

Reply:

We have revised in Abstract “Study design: This cross-sectional study utilized Nutritional Status Monitoring for Children under 5 Years Old in Bandung District in September 2019” as per your recommendation.

Thank you for reviewing the manuscript, and I hope the answers and revisions that have been made will meet your expectations.

2 Revision 1

2 comments · 26 Mar 2024 – 26 Mar 2024

Associate Editor

ACCEPT 26 Mar 2024

Dear EIC,
I appreciate the authors' effort in addressing the majority of the concerns.

Editor-in-Chief

ACCEPT 26 Mar 2024

Dear Author,
Thank you for revising the manuscript. It is acceptable now.