



**PEER-REVIEW REPORT**

**Name of journal:** *World Journal of Diabetes*

**Manuscript NO:** 95463

**Title:** Associations Between Food Insecurity with Gestational Diabetes Mellitus and Maternal Outcomes Mediated by Dietary Diversity: A Cross-Sectional Study

**Provenance and peer review:** Unsolicited Manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer’s code:** 02513151

**Position:** Peer Reviewer

**Academic degree:** MD

**Professional title:** Doctor

**Reviewer’s Country/Territory:** Germany

**Author’s Country/Territory:** China

**Manuscript submission date:** 2024-04-10

**Reviewer chosen by:** AI Editor

**Reviewer accepted review:** 2024-04-26 11:14

**Reviewer performed review:** 2024-05-09 14:25

**Review time:** 13 Days and 3 Hours

<b>Scientific quality</b>	<input checked="" type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
<b>Novelty of this manuscript</b>	<input checked="" type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No novelty
<b>Creativity or innovation of this manuscript</b>	<input checked="" type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No creativity or innovation



<b>Scientific significance of the conclusion in this manuscript</b>	[ <input checked="" type="checkbox"/> ] Grade A: Excellent [ <input type="checkbox"/> ] Grade B: Good [ <input type="checkbox"/> ] Grade C: Fair [ <input type="checkbox"/> ] Grade D: No scientific significance
<b>Language quality</b>	[ <input checked="" type="checkbox"/> ] Grade A: Priority publishing [ <input type="checkbox"/> ] Grade B: Minor language polishing [ <input type="checkbox"/> ] Grade C: A great deal of language polishing [ <input type="checkbox"/> ] Grade D: Rejection
<b>Conclusion</b>	[ <input checked="" type="checkbox"/> ] Accept (High priority) [ <input type="checkbox"/> ] Accept (General priority) [ <input type="checkbox"/> ] Minor revision [ <input type="checkbox"/> ] Major revision [ <input type="checkbox"/> ] Rejection
<b>Re-review</b>	[ <input checked="" type="checkbox"/> ] Yes [ <input type="checkbox"/> ] No
<b>Peer-reviewer statements</b>	Peer-Review: [ <input checked="" type="checkbox"/> ] Anonymous [ <input type="checkbox"/> ] Onymous
	Conflicts-of-Interest: [ <input type="checkbox"/> ] Yes [ <input checked="" type="checkbox"/> ] No

### SPECIFIC COMMENTS TO AUTHORS

Your research provides critical insights into the intricate relationship between food insecurity (FI) during pregnancy and adverse maternal and neonatal health outcomes, particularly gestational diabetes mellitus (GDM) and pregnancy-induced hypertension (PIH). The robust methodology and substantial sample size of 600 pregnant women lend weight to your findings. The stark association between FI and heightened risks of GDM and PIH underscores the urgent need for interventions to address food insecurity during pregnancy. Your study also sheds light on the mediating role of dietary diversity score (DDS), elucidating how improving DDS could potentially mitigate the adverse effects of FI on maternal and neonatal health. Addressing food insecurity during pregnancy not only holds promise for improving immediate health outcomes but also for fostering long-term well-being for both mothers and babies. Congratulations on this impactful study and for your valuable contributions to the field.



**PEER-REVIEW REPORT**

**Name of journal:** *World Journal of Diabetes*

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**Title:** Associations Between Food Insecurity with Gestational Diabetes Mellitus and Maternal Outcomes Mediated by Dietary Diversity: A Cross-Sectional Study

**Provenance and peer review:** Unsolicited Manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer’s code:** 06484184

**Position:** Peer Reviewer

**Academic degree:** MD

**Professional title:** Doctor

**Reviewer’s Country/Territory:** China

**Author’s Country/Territory:** China

**Manuscript submission date:** 2024-04-10

**Reviewer chosen by:** Hong-Xin Jiang

**Reviewer accepted review:** 2024-07-28 06:34

**Reviewer performed review:** 2024-07-31 03:36

**Review time:** 2 Days and 21 Hours

<b>Scientific quality</b>	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input checked="" type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
<b>Novelty of this manuscript</b>	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Good <input checked="" type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No novelty
<b>Creativity or innovation of this manuscript</b>	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No creativity or innovation



<b>Scientific significance of the conclusion in this manuscript</b>	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Good <input checked="" type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No scientific significance
<b>Language quality</b>	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
<b>Conclusion</b>	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Re-review</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Peer-reviewer statements</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous
	Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

### SPECIFIC COMMENTS TO AUTHORS

Food insecurity (FI) during pregnancy can have detrimental effects on maternal health and increase the risk of developing gestational diabetes mellitus (GDM) and pregnancy-induced hypertension (PIH), leading to adverse health outcomes for both baby and mother. This study aimed to explore the associations between FI and pregnancy outcomes, with a specific focus on GDM and PIH, and to explore the mediating role of dietary diversity score (DDS) in these associations. This is an interesting investigation. The conclusions appropriately summarize the data this study provided. I think there are some original findings of this manuscript. It suggests that promoting dietary diversity and ensuring access to a variety of nutritious foods during pregnancy may mitigate the adverse effects of FI on maternal health. This underscores the importance of promoting a diverse and nutritious diet among food-insecure populations to mitigate the risk of adverse pregnancy outcomes. This study revealed that gestational diabetes mellitus (GDM) and pregnancy-induced hypertension (PIH) are significant complications of pregnancy that have been linked to negative neonatal and maternal outcomes. A cross-sectional study involving 600 pregnant women was carried



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out about FI and pregnancy outcomes. The FI was measured via the Household Food Security Survey Module (HFSSM), with GDM defined as fasting plasma glucose levels of  $\geq 5.1$  mmol/L or a 2-hour oral glucose tolerance test (OGTT) value of  $\geq 8.5$  mmol/L. This study makes a significant contribution to the existing literature on food access during pregnancy in relation to GDM and its impact on maternal and neonatal outcomes. Additionally, sampling encompassed both rural and urban health centers, enhancing the generalizability of the findings. Some questions still need to be solve. Such as self-reporting of food insufficiency limited the capture of detailed information, such as cultural or environmental practices related to eating and food purchasing habits. How the convenience of specific food purchases might have influenced the survey data? What about some potential confounders like other health conditions or socioeconomic status. Additional limitations include the modest sample size and the focus on specific neonatal outcomes. I have some questions that this study prompts for the authors to do next. 1. How to clarify the dietary diversity and dietary insecurity? I think the dietary insecurity should including some unsafe food such as food additives. 2. The questionnaire assessed household food security over the past 12 months and was completed through interviews. How long about every assessed period? One day, one week or one month? 3. In addition to economic level, the educational level of pregnant women should also be a consideration. What pregnant women understand about the process of pregnancy often determines the food diversity. 4. I think this questionnaire should be listed in the article. 5. Some gestational diabetes can resolve itself with the end of pregnancy, and some women will continue to have diabetes after the end of pregnancy. I think the authors should distinguish between these two conditions on the impact of pregnancy outcomes. 6. Gestational diabetes is not only related to diet, but also might related to family genetics, and authors should consider this part of the influence of factors.



**RE-REVIEW REPORT OF REVISED MANUSCRIPT**

**Name of journal:** *World Journal of Diabetes*

**Manuscript NO:** 95463

**Title:** Associations Between Food Insecurity with Gestational Diabetes Mellitus and Maternal Outcomes Mediated by Dietary Diversity: A Cross-Sectional Study

**Provenance and peer review:** Unsolicited Manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer’s code:** 06484184

**Position:** Peer Reviewer

**Academic degree:** MD

**Professional title:** Doctor

**Reviewer’s Country/Territory:** China

**Author’s Country/Territory:** China

**Manuscript submission date:** 2024-04-10

**Reviewer chosen by:** Li Li

**Reviewer accepted review:** 2024-09-11 08:22

**Reviewer performed review:** 2024-09-11 09:17

**Review time:** 1 Hour

<b>Scientific quality</b>	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input checked="" type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
<b>Novelty of this manuscript</b>	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Good <input checked="" type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No novelty
<b>Creativity or innovation of this manuscript</b>	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Good <input checked="" type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No creativity or innovation



<b>Scientific significance of the conclusion in this manuscript</b>	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Good <input checked="" type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No scientific significance
<b>Language quality</b>	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
<b>Conclusion</b>	<input type="checkbox"/> Accept (High priority) <input checked="" type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Peer-reviewer statements</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

### SPECIFIC COMMENTS TO AUTHORS

Food insecurity (FI) during pregnancy negatively impacts maternal health and raises the risk of gestational diabetes mellitus (GDM) and pregnancy-induced hypertension (PIH), resulting in adverse outcomes for both mother and baby. This study aimed to investigate the relationships between FI and pregnancy outcomes, particularly GDM and PIH, while also examining the mediating role of the dietary diversity score (DDS). A cross-sectional study was undertaken to examine this relationship, involving 600 pregnant women. Participants were women aged 18 years or older who provided complete data on FI and pregnancy outcomes. The FI was measured via the Household Food Security Survey Module (HFSSM), with GDM defined as fasting plasma glucose levels of  $\geq 5.1$  mmol/L or a 2-hour oral glucose tolerance test (OGTT) value of  $\geq 8.5$  mmol/L. The DDS is determined by evaluating one's food consumption based on nine distinct food groups. A logistic regression model was used to explore the relationship between FI and PIH, and GDM. Associations Between Food Insecurity with Gestational Diabetes Mellitus, Gestational Hypertension, and Maternal Outcomes Mediated by Dietary Diversity Index: A Cross-Sectional Study. The author answered the questions about "How to clarify the dietary diversity and dietary insecurity? I think dietary insecurity should include some



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unsafe food such as food additives. What pregnant women understand about the process of pregnancy often determines the food diversity." I completely agree with your perspective. Some cases of gestational diabetes may resolve on their own after pregnancy, while others may persist. Regardless, gestational diabetes is associated with various complications, which we investigated in our study. Although it is true that gestational diabetes can disappear after pregnancy, our research focused solely on the period during pregnancy and did not examine outcomes beyond that timeframe. They also make some modifications in the manuscript. They have done some improvements in language and structure, reference, discussion, and results. I think the manuscript is better than before.