Dear Prof. Cai,

Thank you very much for your interest in our manuscript entitled “The association between blood glucose levels of children with type 1 diabetes and parental economic status in a mobile health application” (manuscript ID is “93246”). We really appreciate the constructive comments and suggestions from you and the expert reviewers. Please see the detailed point-by-point response below. We hope that we have adequately addressed the reviewers’ comments.

We hope the revised version is acceptable in World journal of diabetes, and I am looking forward to your decision soon.

Sincerely,

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Response to Reviewers’ Comments:

Reviewer #1:
I appreciate the opportunity to review your work, and I believe that addressing the following points will enhance the clarity and robustness of your study.

- Ethical Statement: It is crucial to clarify whether all participants were informed about and consented to the collection of their mobile data for the purpose of this study, particularly in contrast to a previous study with the identifier ChiCTR2000034642. Providing a clear ethical statement will ensure transparency and address any potential concerns regarding data collection and usage. Additionally, it would be beneficial if the 93246-Institutional Review Board Approval Form is also translated into English. This translation would facilitate understanding and verification of the ethical considerations and regulatory compliance associated with the study.

Response: Thank you for emphasizing the importance of ethical considerations in our study. We have uploaded an institutional review board approval document and informed consent document in our revision files to address these issues. Your attention to these matters is greatly appreciated.

- Title Modification: I suggest using the term "application" instead of "app" in the title for better clarity and formality.

Response: Thank you for your suggestion. We appreciate your attention to detail. We have incorporated your feedback and revised the title to use 'application' for improved clarity and formality. Your comment is valuable in ensuring the quality of our work.

- Clarification of Income Categorization: The manuscript mentions categorizing parental income into three groups based on the China Statistical Yearbook. However, it remains unclear whether household income or only one parent's income (the one responsible for recording the HbA1c values in the application) was considered. Clarifying this aspect will provide a better understanding of the socioeconomic variables under examination.

Response: Thank you for your comment. The income mentioned in the original manuscript refers to the annual household per capita income, calculated by dividing the total annual income of all household members by the total number of individuals in the household. In our study, the collection of this data did not further differentiate whether it was the father's or the mother's income. We fully agree with your comment, but our data is insufficient to analyze this aspect. In the future, we will prioritize considering this issue based on your suggestion. We have revised the Method section. Details are as follows:

“The annual household per capita income calculated by dividing the total annual income of all household members by the total number of individuals in the household. We further categorized these groups into low-income (<30,000 Yuan), middle-income (30,000-100,000 Yuan), and high-income (>100,000 Yuan) (1 yuan≈0.145 USD) based on annual data from China Statistical Yearbook-2022.”
- Choice of Statistical Analysis: Given the presence of baseline differences in glucose control, it would be beneficial to explain why ANOVA was chosen over ANCOVA. Adjusting for baseline differences could strengthen the analysis and help mitigate potential confounding effects, thus enhancing the validity of the study findings.

Response: Thank you for your suggestion. We agree that ANCOVA could enhance the precision of our analysis and attenuate potential confounding effects by adjusting for baseline differences. We have revised the Methods section accordingly. Details are as follows:

“ We performed Chi-square tests for categorical variables, ANCOVA for continuous variables with normal distribution, and Kruskal-Wallis U tests for continuous variables with skewed distribution to compare differences in each baseline characteristic among different household income statuses. To investigate whether each outcome variable differed among three household income statuses, we conducted ANCOVA or Kruskal-Wallis U tests, as appropriate. ”

- Interpretation of Odds Ratios: The manuscript states, "Using low-income as a reference group, we found that participants from high-income had increased odds of achieving G0h-dinner target glycemic control (OR=0.06, 95%CI: 0.01-0.31, P=0.002) in the unadjusted model (Model 1)." However, an odds ratio (OR) less than 1 suggests reduced odds, not increased odds. Converting the odds ratios into probabilities could facilitate a clearer interpretation of the results. Clarifying the reported odds ratios will ensure the accurate representation of the findings. Addressing these points will contribute to the overall clarity, transparency, and rigor of your study.

Response: Thank you for your comment. We appreciate your careful review of our manuscript. We must apologize that the binary variables encoding used in the initial draft (achieve target:0; not achieve target:1) may lead to confusion in interpretation. In the revised manuscript, we have adjusted the encoding of binary variables, with glycemic control now coded as 1 to indicate achieve target and 0 to indicate not achieve target. This adjustment will enhance the clarity and intuitiveness of result interpretation and help reduce potential confusion among readers. Therefore, an OR > 1 means that children from high-income families are more likely than those from low-income families to achieve better glycemic control. We have revised the Results section accordingly. Details are as follows:

“The results of univariate and multivariate analyses were presented in Table 4. Using low-income as a reference group, we found that participants from high-income had increased odds of achieving G0h-dinner target glycemic control (OR=16.92, 95%CI: 3.21 to 135.11, P=0.001) in the unadjusted model (Model 1). Similar outcomes were obtained after adjusting for potential confounders (Model 2). The association between household level and the odds of achieving G0h-dinner target glycemic control remained significant. Specifically, the middle-income group was 9.06 times more likely to have better G0h-dinner glycemic control than the low-income group (OR = 9.06, 95% CI: 1.79 to 73.61, P=0.003), while the high-income group was 13.02 times more likely to have better G0h-dinner glycemic control than the low-income group at month 36 (OR=13.02, 95% CI: 1.99 to 126.05, P=0.002).”
<table>
<thead>
<tr>
<th>Pre-dinner</th>
<th>Model 1</th>
<th>Model 2</th>
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<tbody>
<tr>
<td>Low Ref.</td>
<td>6.00 (1.47 to 40.79)</td>
<td>9.06 (1.79 to 73.61)</td>
</tr>
<tr>
<td>Middle</td>
<td>16.92 (3.21 to 135.11)</td>
<td>13.02 (1.99 to 126.05)</td>
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