

# Review of: "Quantile regression for identifying latent structures in COVID-19 pandemic – Examples from Nepal"

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**Potential competing interests:** No potential competing interests to declare.

The manuscript entitled "Quantile regression for identifying latent structures in COVID-19 pandemic - Examples from Nepal" utilizes Quantile Regression to study the effect of latent variables on the spread of COVID-19. The following comments may be made on the manuscript:

1. What is the justification for the use of "-Examples from Nepal" in the manuscript title, if the manuscript explores data from 4 countries, not just Nepal?
2. The keywords must include "Quantile Regression", which is the primary statistical tool used in the manuscript.
3. The abstract needs to be rewritten with an emphasis on brevity, or rewritten into a structured abstract to maintain its current length.
4. More relevant references related to various methods used to study COVID-19 must be added.
5. The entire manuscript needs to be thoroughly revised to eliminate grammatical and typographical errors. For instance, the following errors could be noted in the Introduction Section: "COVID-19 infected into government hospitals", Sentence beginning with "And,", "10 time higher", "shares market price", etc.
6. The after-vaccination period is taken to be same for all four countries. What is the justification for this, since vaccination began in various countries at different times and proceeded with different speed?
7. In the Methodology section, the general model for Quantile Regression has been presented. It is important to present the mathematical expression of the specific models utilized in the study, identifying the dependent and the independent variables. The Methodology Section needs improvement.
8. The assumptions for underreporting have been first mentioned in the Results Section. This should be moved to the Methodology Section, with elaboration in the Results Section.
9. The aim of the study as well as the novelty of the work done needs to be made clearer in the Introduction Section.
10. The image quality of Figure 12 should be improved.
11. The Conclusions Section should be made concise, briefly highlighting the results, and not a repetition of the Results Section.

Thus, although the manuscript handles an important issue and utilizes novel methodology, major revision is needed for polishing up the presentations of its findings.

