Referee's Report on the Paper ID: 3538866

Entitled: "Latent Growth Curve Modeling for COVID-19 Cases in Presence of Time Variant Covariate**"**
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Decision: "Minor Revision"

The present article uses the latent growth curve model to capture the interindividual and intraindividual changes in Covid-19 cases of different countries. Environmental temperature is considered as a time-varying covariate for study purposes. The plots are attractive and draw attention. The study seems interesting; however, I have some concerns related to the study.

1- In the multi-phase model, phases can be chosen in any manner. To select a phase combination, what criteria have been used?
2- In the Table (1), there are typo mistakes in caption. I think "Dec, 2020 Jan, 2020 Feb, 2020 Mar, 2021 Apr, 2020 May, 2020" must be replaced by "Dec, 2020 Jan, 2021 Feb, 2021 Mar, 2021 Apr, 2021 May, 2021".
3- What are the different coefficients in the structure plots Figure (4) and Figure (5) are showing? This needs more discussion.
4- How different models are fitted, and coefficients are obtained reported in Table (3) and Table (4).
5- Whether the temperature is related to the SARS-CoV-2 infection rate is somewhat controversial stated in the literature. The contribution of temperature to the infection trajectory was minimal if any. It is not only one factor responsible which could explain the whole change. Other factors can also be considered in the study to explain the changes and spread of Covid- 19 cases.
6- English of whole paper should be checked for grammar.
7- As this paper can be interesting for the researchers in many field of applied mathematic. So, the authors can improve the introduction by the recent developments in this field. Also, the reference section can strengthen by including some of the following papers

1. Some Dynamic Inequalities of Hilberts Type, Journal of Function Spaces, 2020, 1-13.
2. Some Dynamic Hilbert-Type Inequalities on Time Scales, Symmetry, 2020 ,1-23.
3. Dynamic Hardy-type inequalities with non-conjugate parameters, Alexandria Engineering Journal, 2020 ,1-10.
4. Hilbert Type Inequalities For Time Scale Nabla Calculus, Advances in Difference Equations, 2020, 619,1-21.
5. Some Dynamic Hilbert-Type Inequalities For Two Variables on Time Scales, Journal of Inequalities and Applications, 2021, 31,1-21

Recommendation: After my careful reading, the topic discussed is novel, interesting, significant and important for the related areas. Scientific sound and the problems in the paper is solved in a successful way. Therefore, I recommend the publication of this paper in Computational Intelligence and Neuroscience " after these minor modifications. So, I want to read the revised version of paper before publishing.

With many thanks and best regards...