Review of: "Qualitative Analysis of a Time-Delay Transmission Model for COVID-19 Based on Susceptible Populations With Basic Medical History"

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Potential competing interests: No potential competing interests to declare.

In this paper, the authors consider a class of COVID-19 time-delay transmission model. They obtain the basic reproduction number, and analyze the existence and stability of the disease-free or endemic equilibrium. Also, numerical simulations are performed to verify the theoretical results.

The methods used and the results obtained are standard. The model is novel, but I have some comments:

(1) The manuscript needs a thorough revision of the English. The manuscript contains too many grammatical errors and it is hard to follow, especially Chinglish.

(2) The structure of the manuscript should be reorganized,

(3) After reading the introduction, I do not catch the motivation of the paper. According to the title and the abstract, time-delay and SEIR type model seems the focus of the paper. However, I do not see too much comments or descriptions on the time delay or SEIR in epidemic models.

(4) Model (1) is badly presented, since there are no brief descriptions on the mechanism of the model or the model parameters.

(5) When describing model parameters in model (2), I suggest pay attention the usage of punctuation.

(6) The Lemma or Theorem should be in bold face, Such as**Lemma 2.1**.

(7) In the proof of Theorem 7, it seems that the time delay has no effect on the global stability of the endemic equilibrium, since the Lyapunov function contains no term of time delay, why?

(8) The format of references should be unified, but I see some journal names are full while other are abbreviated. Please check them carefully.