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

Hassan Idris[1]

1 University of Ibadan

Potential competing interests: No potential competing interests to declare.

The journal article on the time-delay transmission model for COVID-19 presents a well-structured and informative analysis. It effectively combines theory and numerical simulations to support its findings. The paper provides clear background information and acknowledges the importance of mathematical modeling in epidemiology. The model equations and parameters are well-defined, and the equilibrium analysis is comprehensive, with mathematical proofs and the use of LaSalle's invariance principle. The inclusion of numerical simulations using MATLAB enhances the reliability of the results, and the presentation of findings is clear.

For potential improvements, I suggest the inclusion of graphical representations to visually illustrate key findings, particularly regarding the impact of different time delays on COVID-19 spread. Additionally, discussing practical implications and policy recommendations based on the research could enhance the paper's relevance.

Overall, the article adheres to standard scientific writing practices and provides valuable insights into COVID-19 modeling. It is well-organized and accessible to readers interested in epidemiology and mathematical modeling.