

## ABSTRACT

The enlarged SEIR model, to which we are adding compartments of behavior changes without or with alterations, is the enteral focus of my research. There are 10 compartments in my model total?five for no behavior and five for altered behavior. To comprehend the dynamics model, one can use the disease-free equilibrium and it can also used disease-free equilibrium points. Additionally, we calculated the global and local st-abilities. Using the next-generation matrix approach,  $R_0$  which is reproduction number determined the disease-free equilibrium for the model under investigation. In addition, a sensitivity analysis is performed to investigate the impact of model parameters on the reproduction number  $R_0$ . Finlay, graphical representations of the outcomes are expected to accompany the numerical calculations.