Determining the Relationship Between Cross-Cultural Interpersonal Distance Preferences and Early COVID-19 Case Frequency Using Multivariate Regression Analysis

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During the initial spread of COVID-19, countries varied in their ability to control the virus. Science shows this variability is in part due to sociocultural factors. One sociocultural factor that differs among countries is the distance at which social interactions take place (interpersonal distance). Because COVID-19 transmits through social interaction, a better understanding of the relationship between cross-cultural interpersonal distance preferences and COVID-19 transmission would be helpful in determining and enforcing culturally effective preventive measures to slow transmission. I used multivariate linear regression to identify the relationship between interpersonal distance and COVID-19 transmission. I hypothesized that during the initial period of spread within countries, frequency of COVID-19 cases in countries where people interacted at closer interpersonal distances would be greater compared to countries where people interacted at more remote interpersonal distances. Results of multivariate regression analysis, controlling for individualism, GDP, BCG vaccination mandates, international tourism, urbanization, total population, median age, population density, and net migration indicated that the variation of interpersonal distance among countries did not affect COVID-19 case frequency. My models showed that total population, median age, GDP, and individualism were significant predictors of COVID-19 case frequency in the initial stages of spread within countries.

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