

Suicide Among Malaysian Elderly: A 25-Years Retrospective Study

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ABSTRACT

Introduction: World Health Organisation estimates that in 2020 approximately 1.53 million people or nearly 3% of all world deaths could be due to suicide. The latest suicide rate in Malaysia was recorded in 2009, which accounted for 7.1% of total deaths. No recent data was available to examine the suicide rate among elderly since then. The aim of the present study was to determine suicide rate and describe characteristics of suicide among Malaysian elderly (60 years and above). **Methods:** Mortality data was obtained from the National Registration Department (NRD) from 1995 to 2020. The pattern of suicide among elderly was described based on their sociodemographic characteristics including gender, ethnic group, religion and region. Suicide rate was calculated by dividing the completed suicide number to the total population number. **Results:** A total of 1,600 cases reported among elderly in Malaysia over 25 years. From 1995 to 2020 the average suicide rate was 3.0%. The highest was in 1995, amounting to 5.5%. The average age of elderly committing suicide was 70.7 years old. The highest suicide rate found to be among males (75.8%), Chinese (71.8%), Buddhists (63.4%) and in the northern region (40.2%) of Malaysia. Hanging (94.8%) was the most common method of suicide. Majority (87.7%) of the deaths were medically certified. **Conclusion:** The findings suggest considerable gender and ethnic heterogeneity in suicide and highlight the need for more research on suicidal behaviour among post-retirement age, as well as culturally tailored prevention efforts. This also shows the need for a practical approach on improving education, research and awareness on suicidal behaviour.

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Spatial Dynamics of COVID-19 in Malaysia

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ABSTRACT

Introduction: Understanding the various aspects of infectious disease transmissibility in the context of "place" is crucial for implementing disease control and harm reduction strategies. This study aimed to determine the dynamics of spatial dispersion of COVID-19 epidemic in Malaysia and its associated indicators. **Methods:** This ecological study included all active COVID-19 cases between 22nd January 2021 and 4th February 2021 using secondary data from multiple sources. Incidence, Bayesian incidence, global and local Moran indices were calculated. A geographical weighted regression (GWR) analysis in addition to ordinary least squares regression (OLS) was executed to assess the relationships between incidence of COVID-19 with population level socio-economic and health coverage indicators. All analyses were conducted using SPSS and Geo Da software. **Results:** A total of 51,476 cases were included in the analysis. The global Moran's index of incidence rate was 0.499 (P=0.01), indicative of positive spatial autocorrelation with high standards between districts and regions. The Local Indicators of Spatial Association (LISA) maps identified spatial clusters, particularly the main high-high patterns in the Central and Southern regions, and low-low concentrated districts in Northern and Borneo regions of Malaysia. The GWR yielded average income per capita and population density as two crucial population level indicators of COVID-19 dispersion in Malaysia (P<0.001). **Conclusion:** The geospatial results indicate that the dispersion of COVID-19 clusters in Malaysia was significantly associated with two crucial population level indicators, particularly average income per capita and population density. Such direct socio-economic indicators identification could guide public health responses to control COVID-19 epidemics in Malaysia.