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Advancing urban health in Portugal: exploring liveability and its association with mental morbidity

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Background: As cities face challenges posed by urbanisation, it becomes essential to understand how city planning can contribute to protecting public health. In this study, we aimed to assess the liveability of different areas in Lisbon, Portugal, by developing a liveability index at the parish level. Secondly, we aimed to explore its association with hospitalisation due to mental disorders.

Methods: The liveability index was built based on the World Health Organisation's Urban Health Index methodology. We obtained data on liveability related to housing, socio-economic conditions and access to services (e.g. healthcare) from the 2011 census and other open data sources for Lisbon's parishes (n = 22). Data on hospital admissions due to mental disorders was sourced at the parish level from the national database for hospital morbidity for the period 2013-2016 and sex-age-standardised. Binomial negative regression was employed to estimate the association between the liveability index tertiles and observed hospital admissions. We used the expected number of hospitalisations as the offset variable and tested for spatial autocorrelation among the regression residuals.

Results: Our analysis showed that living in the most liveable parishes is associated with a significant decrease in the standardised admission ratio due to mental disorders, compared to living in the least liveable areas (Incidence Relative Ratio=0.643; 95% CI: 0.427, 0.967). We did not observe any geographical pattern in the regression residuals (Moran's I= -0.035, p = 0.427).

Conclusions: Our findings show disparities in liveability among Lisbon's parishes and identify a protective association between living in higher liveability areas and hospital admissions due to mental disorders. This work should prompt further studies concerning this subject to inform urban planning policies to improve liveability and equally reduce the risk of mental health-related harm within cities.

Key messages:

- A spatial index to assess liveability in urban areas was developed. The association between the liveability of Lisbon's parishes and hospital admissions due to mental disorders was explored.
- We found a significant protective association between higher liveability and hospital admissions due to mental disorders. This work is relevant to inform the implementation of urban planning policies.