EXPLORING THE ROLE OF ENVIRONMENTAL AND BEHAVIOURAL DETERMINANTS IN THE BURDEN OF DISEASE LINKED TO PHYSICAL INACTIVITY: A LONGITUDINAL PANEL ANALYSIS

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ABSTRACT

This study explores how environmental and behavioural determinants are associated with insufficient physical activity levels across the global population, particularly among those increasingly at risk of the growing burden of disease. We utilized data from WHO, UN-Habitat, and FAO to construct a panel dataset covering 131 countries for the years 1990, 2000, 2010, and 2020. The panel data model analysis was utilized to examine the relationship between environmental & behavioural factors for the variations in the average share of green space in urban areas. Further, we considered Country income classifications for the time-invariant effect and year fixed effects to control for structural economic differences and temporal shifts.

The results endured the average share of green space increases by 0.069% for every square metre of per capita green space and for a 1% increase in forest area causes a 7.837 percentage point drop in the share of urban green space. The health indicators attributable from the Low Physical Activity such as obesity among gender, where a 1% increase in male obesity led to a 0.426 percentage point decrease in green space utilization for physical activity. In contrast, female obesity, indicate that a 1% reduction in obesity among females corresponds to a 0.293 percentage point increase in green space utilization, reflecting more proactive use of green space for maintaining body weight.

The Rapid urbanization post 2010 has led to a significant reduction in the average share of green space, as identifies in the year 2020, reflecting infrastructural challenges in maintaining walkability. Furthermore, income group classifications showed no significant effect on green space availability, underscoring that within-country characteristics play a more prominent role than economic status.

Keywords: Green Space, Physical Activity, Chronic Health Disease, Diabetes, Obesity and Panel model.

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