

EMBARGOED UNTIL 12 JULY AT 00.01 AM (CEST)

- PRESS RELEASE -

Living in Greener Neighbourhoods is Associated with Slower Cognitive Decline in Elderly

A study shows a relation between neighborhood green space and mental capacity after following 6,500 people in the UK for 10 years

Barcelona, 12 July, 2018.- Contact with greenspace is known to have beneficial effects for mental health. A new study by the Barcelona Institute for Global Health ([ISGlobal](#)), a centre supported by the "la Caixa" Foundation, suggests that it may also play a positive role against cognitive decline in elderly. In particular, this research published in *Environmental Health Perspectives* shows that the **loss in cognitive functions** expected as part of the ageing process is **slightly slower** in people who live in greener neighbourhoods.

Researchers performed a **10 years follow-up of 6,500 people aged 45 to 68** from the Whitehall II cohort **in the UK**. At three different timepoints during the course of the study, participants completed a battery of cognitive tests that assessed their verbal and mathematical reasoning, verbal fluency and short-term memory, as well as the decline in these functions. Neighbourhood greenspace for each participant was estimated using satellite images.

“There is [evidence](#) that the risk for dementia and cognitive decline can be affected by exposure to urban-related environmental hazards (such as air pollution and noise) and lifestyle (such as stress and sedentary behavior). In contrast, living near green spaces has been proposed to increase physical activity and social support, reduce stress, and mitigate exposure to air pollution and noise. Recent evidence has shown [cognitive benefits of green space exposure in children](#), but **studies on the possible relations of exposure to green spaces and cognitive decline in older adults are still very scarce** and often have inconsistent results”, says Carmen de Keijzer, ISGlobal researcher and first author of the study.

“Our data show that **the decline in the cognitive score after the 10-years follow up was 4.6% smaller** in participants living in greener neighbourhoods. Interestingly enough, the observed associations were stronger among women, which makes us think that these relations might be modified by gender”, Carmen de Keijzer adds.

“The proportion of people over 60 years old in the world is expected to nearly double between 2015 and 2050 and the number of dementia cases has been predicted to grow at a similar pace worldwide. Although the differences in cognitive decline observed in our study are **modest at individual level**, they become **much more significant if we consider these findings at population level**”, says Payam Dadvand, ISGlobal researcher and last author of the study. “If confirmed by future studies, our results may provide an evidence base for implementing targeted interventions aimed at decelerating cognitive decline in older adults residing in urban areas and hence improving their quality of life”, he adds.

Reference

de Keijzer C., Tonne C., Basagaña X., Valentín A., Singh-Manoux A., Alonso J., Antó J.M., Nieuwenhuijsen M., Sunyer J., Dadvand P. Residential Surrounding Greenness and Cognitive Decline: A 10-Year Follow-up of the Whitehall II Cohort. *Environmental Health Perspectives*, 2018.

About ISGlobal

The Barcelona Institute for Global Health, ISGlobal, is the fruit of an innovative alliance between the "la Caixa" Foundation and academic and government institutions to contribute to the efforts undertaken by the international community to address the challenges in global health. ISGlobal is a consolidated hub of excellence in research that has grown out of work first started in the world of health care by the Hospital Clínic and the Parc de Salut MAR and in the academic sphere by the University of Barcelona and Pompeu Fabra University. The pivotal mechanism of its work model is the transfer of knowledge generated by scientific research to practice, a task undertaken by the institute's Education and Policy and Global Development departments. ISGlobal a member of the CERCA programme of the Generalitat de Catalunya.

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