

# Study suggests that living near green spaces reduces the risk of depression and anxiety

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Green space in front of the author's residence. Credit: Wang et al.

Over the past decades, a growing number of people have migrated to urban areas, while the size and population of rural areas have drastically declined. While parks and other green spaces are often viewed as beneficial for the well-being of those living in cities and urban regions, so far very few studies have explored the impact of these spaces on mental health.

Researchers at Huazhong University of Science and Technology in China recently carried out a study investigating the potential link between long-term exposure to green spaces in proximity of one's home and two of the most common mental health disorders: depression and [anxiety](#). Their [findings](#), published in *Nature Mental Health*, suggest that living close to parks and green areas can reduce the risk of becoming depressed and experiencing anxiety.

"Our research interest is environmental epidemiology, which mainly focuses on the impacts of environmental exposure, such as greenery and air pollutants, on human health," Yaohua Tian, co-author of the paper, told Medical Xpress. "There seems to be a consensus regarding green space on the fact that greenness can reduce stress and improve mood. However, this was just an idea rooted in our minds, and we were not clear about whether there is scientific evidence to support it."

Tian and his colleagues first reviewed past studies exploring the link between proximity to nature and mental health. They found that there were only a few papers on this topic and those available had reached inconsistent conclusions.

"We therefore analyzed a large cohort to investigate the effects of long-term exposure to residential greenness on the risk of incident depression and anxiety," Tian said. "We then further tested and compared the potential pathways by which greenness may impact mental health."

As part of their study, the researchers analyzed data gathered from 409,556 people and stored in the UK Biobank database. They specifically looked at the distance between participants and green areas, in conjunction with their self-reported well-being scores, as well as hospitalizations, hospital admissions, and deaths in their residential area.

"We assessed the level of greenness around each participant's residential

address within 300m, 500m, 1,000m, and 1,500m," Tian explained. "Then, we determined their risk of developing mental health conditions over around 12 years, which was determined by national records on the death register, hospital admissions, primary care, and self-reports."

The results of the analyses performed by Tian and his collaborators suggest that there is a link between prolonged proximity to residential green areas and the incidence of both depression and anxiety. Specifically, they suggest that living closer to parks and other green areas reduces the risk of experiencing both depression and anxiety.

"We draw the important conclusion that long-term exposure to residential greenness is associated with a decreased risk of incident depression and anxiety, and reduced air pollution in the greenest areas probably plays an important role in this trend," Tian said. "Our study thus implies that expanding urban [green spaces](#) could promote good mental health."

The findings of this work could soon inspire other research groups to investigate the link between long-term exposure to [natural environments](#) and human mental health or well-being. Collectively, these works could guide future urban planning efforts, encouraging governments to invest in new parks or expand existing green areas.

"We now plan to conduct similar studies in different populations and areas, including China," Tian added. "We are also considering carrying out serologic detection studies to further explore the physiological mechanisms linking green environments to [mental health](#)."

**More information:** Jianing Wang et al, Long-term exposure to residential greenness and decreased risk of depression and anxiety,

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