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Background: Mental disorders impose a significant global burden, affecting millions of individuals, contributing to disability, reduced quality of life, and economic costs worldwide. Between 1990 and 2019, the global number of disability-adjusted life-years due to mental disorders increased from 80.8 million to 125.3 million. The economic costs are projected to rise to 6,000 billion euros by 2030. Urbanization has been associated with a worsening of mental disorders over the years due to various factors, such as increased stress, social isolation, reduced access to green spaces, and higher levels of pollution. Decades of research have instead shown that exposure to green space may promote psychological well-being, regulate stress, and endorse social health across the lifespan. In this systematic review, we aim to investigate how proximity to vertical gardens or urban forests, specifically, may affect mental health.

Methods: The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) were followed. The study protocol was registered in PROSPERO (CRD42024517969) with the following PECOS question: Is there an association between vertical gardens or urban forests and mental health?

Results: After performing searches on PubMed, Scopus, and Web of Science, and duplicate removal, we retrieved 556 articles. The main reasons for exclusion after title/abstract screening were mainly wrong outcome (not mental health) and wrong study type (not observational/intervention/cross-sectional studies). The selection of full texts is expected to end shortly and results will be available for November 2024. Preliminary findings support the role of green environmental assets in facilitating physical activity, social contact, and stress reduction.

Conclusions: In summary, mental disorders are exacerbated by urbanization's stressors. Our review will further elucidate the potential benefits of urban green spaces like vertical gardens and urban forests on mental health.

Key messages:

- Urbanization exacerbates the issue of mental disorders global burden.
- Exposure to urban forests and vertical gardens may promote physiological well-being and mental health.

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Greening the mind: exploring the link between vertical gardens, urban forests, and mental health

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