

## Individual communication

### IC - (21204) - GREEN SPACE AND LONELINESS: A SYSTEMATIC REVIEW WITH THEORETICAL AND METHODOLOGICAL GUIDANCE FOR FUTURE RESEARCH

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#### Background and objectives

Urban greening may help to reduce the population health impacts of loneliness and its concomitants, such as hopelessness and despair. However, the literature lacks both a critical appraisal of extant evidence and a conceptual model to explain how green space would work as a structural intervention. Both are needed to guide decision making and further research. We conducted a systematic review of quantitative studies testing associations between green space and loneliness, searching seven databases. Twenty two studies were identified by 25/01/2022. Most of the studies were conducted in high-income countries and fifteen (68%) had cross-sectional designs. Green space was measured inconsistently using either objective or subjective indicators. Few studies examined specific green space types or qualities. The majority of studies measured general loneliness (e.g. using the UCLA loneliness scale). Different types of loneliness (social, emotional, existential) were not analysed. Potentially protective associations between green space and loneliness were reported in 88 from a total of 132 (66.6%), with 44 (33.3%) reaching statistical significance ( $p < 0.05$ ). We integrated these findings with evidence from qualitative studies to elaborate and extend the existing pathway domains model linking green space and health. These elaborations and extensions acknowledge the following: (a) different types of green space have implications for different types of loneliness; (b) multilevel circumstances influence the likelihood a person will benefit or suffer harm from green space; (c) the personal, relational, and collective processes at work within different domains of pathways linking greenspace with loneliness and its concomitants; (d) the explicit positioning of loneliness and its concomitants as mediators within the broader causal system that links green space with health and wellbeing. This review and model provides guidance for decision making and further epidemiological research on green space and loneliness.