Correspondence

Good quality and available urban green spaces as good quality, health and wellness for human life

Dear editors,

Green areas represent our natural health heritage for several human benefits.

Growing medical evidence shows that people living closer to green open spaces are more physically active and are less likely to be overweight or obese, as a result helping to combat diseases, such as diabetes and heart disease, and having other numerous health benefits on both mental and physical health.\(^1\)\(^,\)\(^2\) Despite this, in literature the evidence of the link between physical and non-physical health benefits and urban green space is unclear.

The review carried out by Lee and Maheswaran\(^3\) aims to underline this link but the authors indicate insufficient evidence on the links between physical and mental health and well-being and urban green space and availability. Measuring the real amount of physical activity is complex and self-reported data might be unreliable. In this regard, we add that there are quantitative studies to evaluate physical activity environments through relatively recent innovations: Accelerometers and Global Positioning System receivers, to measure activity and location and data mapped in a Geographic Information System with a green space data set.\(^4\)

In 2010, Di Nardo et al.\(^5\) carried out a review of the most updated literature regarding the relationships between green spaces and wellness. In addition, they found the explanation that many contradictory and unexpected results in review probably occurred because of the differences in measures and definitions of green space as well as self-report measures of ‘well-being’, as well as in population habits and geographical locations. The availability of green space varies considerably between different urban areas and accordingly, good quality green space needs to be equally available to everyone in order to moderate the health gap.

As Lee reported, assessments of the equity of access to green spaces may be useful and tools such as geographical mapping could be used for this purpose too, because urban design can facilitate physical activity and reduce impediments to exercise, such as good quality and availability of urban green space. Nevertheless, in this context, Di Nardo et al. added that there is an increasing interest for geographical mapping as a tool to check the quality of life in populations, taking into account that additional determinants such as pollution (air and noise) can also be favourably changed to implement physical activity.

Health problems due to urbanization—in developed countries about 75% of the inhabitants live in dense urban areas\(^6\)—pose as increasing evidence of the functional role of urban green space to monitor and improve urban air quality—even with the use of Geographical Information System—and, as a direct consequence, quality of life in urban populations.\(^7\)\(^,\)\(^8\)

An evidence-based approach to urban planning is essential and Schweikart et al. recognize that detailed scientific knowledge and homogeneous data collection is important to implement environmental programmes with the aim of protecting the human population.\(^9\)

References


Rosella Saulle and Giuseppe La Torre  
Department of Public Health and Infectious Diseases  
Sapienza University of Rome  
Rome  
Italy  
E-mail: rosella.saulle@uniroma1.it  
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Postpartum depression screening: a Comment on Leung et al.

Leung et al.\(^1\) reported that women screened with the Edinburgh Postnatal Depression Scale (EPDS) 2 months post partum were significantly less likely to score \(\geq 10\) on the EPDS 6 months later than control group women. Women screened with the EPDS were referred for depression treatment if they had EPDS scores \(\geq 10\), reported suicidal ideation, or were assessed as ‘probably’ depressed based on a separate clinical assessment, described as ‘observing participants’ expression and behavior, enquiring about feelings, appetite, sleep pattern, childcare and suicidal ideas’ (p. 294). Control group women were similarly referred for treatment if they were evaluated as probably depressed via the same clinical assessment. Several reasons, however, suggest that the results reported by Leung et al.\(^1\) should be viewed cautiously.

First, whereas screening is intended to select patients for more comprehensive assessment,\(^2,3\) in this study, all patients in both groups received a clinical assessment. No women identified as possibly having depression in either group were further evaluated to determine whether or not they had depression and whether depression treatment was indicated. Rather, women were only evaluated to determine the format of treatment they would receive. Assuming a 12% rate of postnatal depression\(^1\) and EPDS \(\geq 10\) sensitivity and specificity of 92 and 77%, respectively,\(^4\) just over one-third of treated women likely had depression.

Despite this, the standardized mean difference (SMD) effect size for EPDS scores at 6 months was 0.34 (calculated from their Table 2), even though only 24% of screening group patients received treatment (55/231) and even though 11 patients in the control group were treated. Assuming no outcome differences between treated patients in the screening and control groups and non-treated patients in the two groups, this is roughly equivalent to SMD = 1.81 for the 44 additional patients treated in the screened group—many times larger than results from even well-controlled depression treatment trials. The SMD from 30 collaborative depression care intervention trials, for example, was 0.25.\(^5\) Ultra-large treatment effects from relatively small numbers of treated patients, as in Leung et al., often fail to replicate.\(^6\)

Finally, in their 2005 trial registration (NCT00251342), Leung et al. declared two primary outcome measures, the EPDS and the General Health Questionnaire-12 (GHQ-12) (http://clinicaltrials.gov/ct2/show/NCT00251342). In their article, however, they stated that there was only one primary outcome, EPDS scores (statistically significant) by which to judge screening effectiveness. They listed GHQ-12 scores (not statistically significant) as secondary. Clinical trial registration requirements were implemented to improve research transparency, including reducing the likelihood that null or equivocal trials are presented as positive in the research literature.\(^7,8\) Changing the status of outcome variables from primary to secondary based on trial results misleads research users about the trial design, and, generally, raises concerns about the fidelity of the trial’s reporting. In the case of the trial by Leung et al., based on its registered design, it was an equivocal, not a positive trial.

Post partum depression is an important problem, and screening may be a solution. This trial, however, did not establish whether or not this is the case.

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References