



## Letter to the Editor

## The therapeutic power of green



We came across with a delightful editorial in this Journal (Murray, 2018), which commented on the relatively lower incidence of psychosis in Spain and Italy than in Northern Europe (Jongsma et al., 2018). The Editor added that this evidence parallels the higher risk of developing schizophrenia among those born and brought up in cities than in rural settings (McGrath et al., 2004). Both considerations seem to add something to a series of previous observations that would point to some beneficial effect of green space on mental health (Lederbogen et al., 2011).

The etiology of schizophrenia is unknown though both biological (that is, genetic) and environmental (external stimuli) factors are known to be associated with the disease (Murray, 2018). Color may be considered as an external stimulus and the question arise if the green color itself may condition mental health.

The visual sensitivity of the human eye is highest to the green light (Slaney, 2016). This may have evolutionary meaning (Yokoyama and Takenaka, 2005) since green color is perceived as that associated with life itself. From the pharmacological point of view, green color may boost the placebo effect when administering tranquillising medicines (de Craen et al., 1996) and perceiving pain (Wiercioch-Kuzianik and Babel, 2019). Unfortunately, the studies on the relationship between the green color and schizophrenia have thus far given inconsistent results. Holmes et al. (1985) have not found preferences to be affected by mental health and no difference in color preference was reported between patients with schizophrenia and healthy controls (Cernovsky and Fernando, 1988; Sadr and Mohammad, 2004). On the contrary, Kuloğlu et al. (2002) found a prominent green preference in schizophrenia patients and it has been suggested that patients with schizophrenia should have more contact with green (Tao et al., 2015).

The studies on the relationships between color preference and mental health suffer from several limitations and this may explain the contradictory results obtained so far (Taft, 1997; Tao et al., 2015). However, the possibility to improve the schizophrenic patients' quality of life through adequately designed green environments is interesting and hence this hypothesis would warrant further studies.

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## Declaration of Competing Interest

None.

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