

# Personal space larger, less permeable in schizophrenia patients

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Patients with schizophrenia have higher personal space (PS) size and

lower PS permeability compared with controls, according to a study published online June 5 in *Schizophrenia Bulletin*.

Sarah L. Zapetis, from Massachusetts General Hospital in Charlestown, and colleagues examined the neurobiological basis of impairments in PS, which have been repeatedly observed in [schizophrenia](#) and linked to negative symptoms in some studies. PS measurements, functional connectivity of a brain network sensitive to intrusions into PS, and symptoms of social withdrawal and anhedonia were examined among 33 individuals with a psychotic disorder, mainly schizophrenia, and 36 controls.

The researchers found that compared with controls, [patients](#) with schizophrenia had significantly higher PS size and significantly lower PS permeability (reflecting the capacity to tolerate intrusions into PS). In the full sample, both measures were significantly associated with social anhedonia and withdrawal. There were significant associations seen for functional connectivity between the PS and default mode (DM) networks with permeability, but not size, of PS in the full sample and in the schizophrenia and control groups separately; in the schizophrenia group, there was also an association noted with social withdrawal. PS permeability fully mediated the association between PS-DM network connectivity and social withdrawal in the schizophrenia group.

"PS was found to be, on average, larger and less permeable in [individuals](#) with schizophrenia compared with controls," the authors write. "The [permeability](#), but not the size, of PS correlated with social withdrawal and social anhedonia, as well as overall negative symptom severity, in the schizophrenia group."

**More information:** Sarah L Zapetis et al, Neural Correlates of Variation in Personal Space and Social Functioning in Schizophrenia and Healthy Individuals, *Schizophrenia Bulletin* (2022). [DOI:](#)

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