MedicalXpress

Social phobia linked to autism and schizophrenia

December 11 2017

People who struggle with social situations may process social information inefficiently.

New Swinburne research shows that people who find social situations difficult tend to have similar brain responses to those with schizophrenia or autism.

The research, published in *Psychiatry Research*: Neuroimaging, found the areas of the brain that show increased response when exposed to unexpected speech sounds or 'phonemes' are associated with the processing of social information and linked with spectrum conditions such as autism or schizophrenia.

"This suggests that for people who find social situations difficult, their brain may be processing social information inefficiently," says lead researcher and Postdoctoral Research Fellow, Dr Talitha Ford.

"Autism and schizophrenia are multi-dimensional and spectrum conditions, which means they have varying degrees of many different symptoms, so much so, these symptoms present as non-clinical traits in the general population," she says.

She explains that key features of both conditions are interpersonal and social difficulties, and different brain responses to changes in the environment.

"This study shows that brain responses to changes in the environment might be more closely related to the interpersonal and social difficulties experienced by those with schizophrenia and autism."

Understanding brain responses

Dr Ford says studying the brain responses associated with behaviours related to clinical conditions, such as autism and schizophrenia, allows scientists to add to the growing understanding of the processes that drive these behaviours.

"Increasing the understanding of the relationship between clinical behaviours and brain response helps scientists and clinicians develop innovative and efficient early detection, prevention and treatment

options for patients with these conditions," she says.

The next step

Dr Ford hopes to further investigate the relationship between social cognition and brain response through the use of different neuroimaging techniques and measures of social skills.

"We also hope to extend this research to investigate these relationships in people with clinical conditions, such as autism and schizophrenia," she says.

More information: Talitha C. Ford et al. Magnetoencephalography reveals an increased non-target P3a, but not target P3b, that is associated with high non-clinical psychosocial deficits, *Psychiatry Research: Neuroimaging* (2017). DOI: 10.1016/j.pscychresns.2017.11.012

Provided by Swinburne University of Technology