

## A closer look at melancholia: saccadic eye movements in melancholic and nonmelancholic depression

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**Background:** Major depressive disorder may be a heterogeneous disorder; yet, melancholic depression is the most consistently described subtype, regarded as qualitatively different to nonmelancholic depression in terms of cognitive and motor impairments. Eye movement studies in depression are infrequent and findings are inconclusive.

**Methods:** This study used a battery of saccadic (very fast) eye movements to explore reflexive saccades, as well as higher order cognitive aspects of saccades including inhibitory control and spatial working memory. Nineteen patients with major depressive disorder (9 melancholic, 10 nonmelancholic) and 15 healthy controls participated.

**Results:** Differences were showed between melancholic and nonmelancholic patients. Melancholia was associated with longer latencies, difficulty increasing peak velocities as target amplitudes increased and hypometric primary saccades during the predictable protocol. In contrast, the nonmelancholic depression group performed similarly to controls on most tasks, but saccadic peak velocity was increased for reflexive saccades at larger amplitudes.

**Conclusions:** The latency increases, reduced peak velocity and primary saccade hypometria with more severe melancholia may be explained by functional changes in the fronto-striatal-collicular networks, related to dopamine dysfunction. In contrast, the serotonergic system plays a greater role in nonmelancholic symptoms and this may underpin the observed increases in saccadic peak velocity. These findings provide neurophysiological support for functional differences between depression subgroups that are consistent with previous motor and cognitive findings.

**Background:** This study assessed the effectiveness of computer-assisted cognitive remediation in the treatment of cognitive deficits in people with both recent onset schizophrenia and chronic schizophrenia.

**Methods:** A randomized wait-list control study was conducted over eight sites using Medalia's Neuropsychological Approach to Remediation (NEAR). All subjects were diagnosed with schizophrenia or schizoaffective disorder and were recruited from a range of community and in-patient facilities. Subjects were randomized between an immediate treatment and a waitlist group, the later being treated after 15 weeks. Subjects were assessed at baseline, after at least 20 sessions of NEAR and 15 weeks after the completion of treatment on measures of symptomatology, function and neurocognition.

**Results:** Minimal differences were observed between waitlist and immediate treatment groups at baseline. However subjects with chronic schizophrenia were rated significantly higher for positive and total symptoms on the Positive and Negative Syndrome Scale. After treatment, significant improvements were observed for attention, processing speed and a limited range of executive functions. Improvements were accompanied by an improvement in social and occupational functioning particularly for subjects with recent onset disease. There were few changes in levels of symptomatology, self-esteem or quality of life.

**Conclusions:** This study supports the effectiveness of computer-assisted cognitive remediation in both recent onset and chronic schizophrenia in treating the cognitive deficits of schizophrenia. This appeared to have a social and occupational impact for young people with recent onset disease.

## Atypical antipsychotic use in Australian patients: cross-sectional study of uptake and perceived benefit

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**Background:** Atypical antipsychotics are not as widely used in Australian public mental health as expected from evidence of their efficacy and treatment guidelines recommendations. We assessed the reasons for this from the perspectives of patients, their carers and clinicians.

**Methods:** A random sample of people with a diagnosis of schizophrenia attending four public mental

## Cognitive remediation in first-episode and chronic schizophrenia

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