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### P300 Correlates of Cognitive Dysfunctions in Schizophrenia

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**Introduction.** P300 is an event-related potential (ERP) thought to reflect attention, working memory and context integration and has been shown to be consistently reduced in patients with Schizophrenia. Despite a possible relation between P300 components and cognitive deficits in Schizophrenia has been hypothesized, few studies addressed this hypothesis.

**Objectives.** In the context of a multicenter study of the Italian Network for Research on Psychoses, our study focused on the investigation of auditory P300 component in relation to clinical and cognitive domains in patients with Schizophrenia.

**Methods.** ERPs were recorded in 64 chronic, stabilized patients with Schizophrenia during a standard oddball task. N1 and P3b latency and amplitude were assessed at Fz and Pz, respectively. State of art instruments was used for clinical assessment. Cognitive indices (from the seven cognitive domains of the Measurement and Treatment of Cognition in Schizophrenia, MATRICS) were expressed as Z-scores from an Italian normative sample.

**Results.** Correlation analysis revealed associations of P3b latency with age, education, PANSS-DIS, processing speed, working memory, St. Hans parkinsonism subscale. In a multiple linear regression model, processing speed was an independent significant predictor of P3b latency.

**Conclusion.** For the first time, a strong relation between P3b latency and processing speed impairment was shown in Schizophrenia. Processing speed is considered a central factor in the relation between cognitive deficits and functional outcome in chronic schizophrenia. The association with P3b latency might shed lights in the neural basis of this complex construct.