

Doctoral dissertation in Psychology 2011

Karilampi, U. Neurocognition in schizophrenia spectrum disorders. Department of Psychology, University of Gothenburg, Sweden.

ABSTRACT

The general purpose of this dissertation was to explore and describe the global and specific aspects of neurocognition and cognitive functioning in a cross-sectional, clinically representative group of outpatients with schizophrenia spectrum disorders, using healthy volunteers as a control group, whenever feasible.

Study I analyzed and compared neurocognitive test profiles related to different levels of verbal learning performance among patients with schizophrenia spectrum disorders and healthy volunteers in order to identify the major predictors of category assignment. Approximately four out of ten patients had normal levels of verbal learning performance. Despite equivalent levels of verbal learning in comparison with healthy volunteers, the patients performed worse on all subtests with the exception of working memory. All patients also presented equally poor visuomotor processing speed despite their level of verbal learning performance, indicating global neurocognitive retardation in speed-related processing.

Study II assessed the relationship between the global assessment of functioning (GAF) subscales and neurocognitive test performance in a cohort of outpatients with schizophrenia spectrum disorders, based on gender. The GAF associations with composite cognition scores varied as a function of sex, suggesting a complex relationship between these variables. Furthermore, the results indicated that executive functioning may have a greater impact on the symptom and function profiles of male patients than on those of female patients.

Study III analyzed and compared vigilance-related performance profiles of male and female patients with schizophrenia spectrum disorders, in and out of remission, against healthy volunteers. There was a sex-related difference in signal detection scores in the healthy volunteer group but not in the patient group. Also, perceptual sensitivity was shown to be significantly affected for patients of both sexes, but the ratio was almost two times larger for male patients, suggesting a larger neurocognitive decline in the male patient population.

Study IV elicited how people with schizophrenia spectrum diagnoses evaluate their own cognitive ability, with main focus on psychometrically validated cognitive improvement. The patients found it hard to evaluate their cognitive improvement as the demands in their daily life were low. Also, they tended to ascribe concentration problems to feelings of anxiety and restlessness, or claimed them to be a side-effect of antipsychotic medication. The patients still felt it meaningful to receive feedback on their improved test results as the information made them feel more proud and empowered.

Keywords: schizophrenia, cognition, gender, global assessment of functioning, ecological validity

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Neurocognition in schizophrenia spectrum disorders

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Department of Psychology, 2011

Avhandling för avläggande av filosofie doktorsexamen i psykologi, som med vederbörligt tillstånd av samhällsvetenskapliga fakulteten vid Göteborgs universitet kommer att offentligas försvaras fredagen den 14 oktober 2011 kl 13.00, Sal F1, Psykologiska institutionen, Haraldsgatan 1, Göteborg.

Fakultetsopponent:

Mark Geyer

Professor of Psychiatry and Neurosciences

Department of Psychiatry, University of California, San Diego

The dissertation is based on the following four original studies, which will be referred to by their Roman numerals:

- I** Karilampi U, Helldin L, Hjärthag F, Norlander T, Archer T (2007) Verbal learning in schizopsychotic outpatients and healthy volunteers as a function of cognitive performance levels. *Archives of Clinical Neuropsychology*, 22:161-174.
- II** Karilampi U, Helldin L, Archer T (2011) Cognition and global assessment of functioning in male and female outpatients with schizophrenia spectrum disorders. *Journal of Nervous and Mental Disease*, 199:445-448.
- III** Karilampi U, Helldin L, Hjärthag F, Archer T (Submitted) Vigilance profiles and remission in schizophrenia.
- IV** Karilampi U, Odin A, Wentz K, Archer T (Submitted) The ecological validity of neurocognitive improvement in outpatients with schizophrenia spectrum disorders: a qualitative study.



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