Cognitive remediation for adolescents with psychosis and schizophrenia

Tu-S-303

Cognitive remediation and schizophrenia of adolescents
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Context.– Schizophrenics have a lot of difficulties in socializing, largely because of basic cognitive troubles. Attention, memory and executive functions deficiencies are underlying causes of their handicaps. Treating these specific problems may reduce some symptoms of schizophrenia and improve the social rehabilitation of these patients. In such a field the RECOS program is definitely appropriate to young patients (between 16 and 25).

Objective.– Assessing the benefits of the RECOS program on cognitive functions, measuring its effects on the severity of symptoms, depression, self-esteem, awareness of cognitive disabilities and insight.

Method.– The study consists of a series of 15 individual sessions, with an evaluation before and after treatment. The RECOS program is prescribed to 20 22-year-old schizophrenic patients (according to DSM IV). The severity of symptoms, depression, global cognitive level, awareness of cognitive disabilities, self-esteem and insight are evaluated by several tests.

Results.– The RECOS program significantly improves the executive abilities, memory, awareness of cognitive troubles and self-esteem. Nevertheless, there is less benefit on the severity of symptoms, depression and insight.

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A randomized controlled trial of the effectiveness of a computer-assisted cognitive remediation (CACR) program in adolescents with psychosis or at high risk of psychosis: Short-term and long-term outcomes
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The purpose of the present study was to investigate the short- and long-term effectiveness of a computer-assisted cognitive remediation (CACR) program in adolescents with psychosis or at high risk. Thirty-two adolescents participated in a blinded 8-week randomized controlled trial of CACR treatment compared to computer games (CG). Clinical and neuropsychological evaluations were undertaken at baseline, at the end of the program and 6 months after enrolment in the study. At the end of the program (n = 28), results indicated that visual-spatial abilities (Repeatable Battery for the Assessment of Neuropsychological Status, RBANS, P = .005) improved significantly to a greater extent in the CACR group compared to the CG group. Other cognitive functions (RBANS), psychotic symptoms (Positive and Negative Symptom Scale) and psychosocial functioning (Social and Occupational Functioning Assessment Scale) improved significantly but at similar rates, in the two groups. At long term (n = 22), cognitive abilities did not demonstrate any amelioration in the control group while, in the CACR group, significant long-term improvements in inhibition (Stroop; P = .040) and reasoning (Block Design Test; P = .005) were observed. In addition, symptom severity (Clinical Global Improvement) decreased significantly in the control group (P = .046) and marginally in the CACR group (P = .088). Improvements in cognitive abilities were not associated with symptoms’ amelioration in this study. In summary, CACR can be successfully administered in this population. CACR proved to be effective over and above CG for the most intensively trained cognitive ability. Finally, on the long-term, enhanced cognitive abilities (reasoning and inhibition abilities), which are necessary to execute higher-order goals or to adapt behavior to the ever-changing environment, were observed in adolescents benefiting from a CACR.

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Cognitive remediation therapy for young people with schizophrenia
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Group studies of adults with schizophrenia have repeatedly shown cognitive deficits to be evident in the areas of attention, memory and executive functioning (e.g. Morris et al., 1995). Studies of adolescents with schizophrenia have found similar deficits to be present (Jahshan et al., 2010). Adolescent onset has also been found to predict significantly worse psychosocial outcome such as fewer social contacts, poorer educational performance, a greater dependence on public or family assistance and a reduction in employment (Röpcke and Eggers, 2005). Therefore, early intervention appears to be vital for such patients who are within a critical period of their illness and treatment of difficulties at this stage may alter the long-term outcome of their psychosis (Wykes et al., 2007). But it is only recently that cognitive deficits have become a target for intervention spurred on by the revelation that these impairments impact quality of life (Savilla et al., 2008) and limit the rate of recovery following rehabilitation. The most important reason for providing interventions for cognitive difficulties has been the strong and significant associations between cognitive deficits and functional outcome (Wykes, 1994; Wykes et al., 1992). Cognitive Remediation Therapy (CRT) aims to improve cognition and thereby increase functional outcome (Wykes et al., 2007). The majority of studies have investigated the impact of CRT in adults with a chronic course of schizophrenia, although there has been a shift more recently to evaluating the benefits of CRT with younger people. Wykes et al. (2007) for example, evaluated the efficacy of CRT compared to treatment as usual in young patients (age range 14 to 22) with recent onset schizophrenia and cognitive and social behavioural difficulties. Participants in the intervention group received individual CRT for three months with at least three sessions per week. Compared to standard treatment, CRT produced clinically significant improvements in cognitive flexibility. Symptoms also reduced further in the CRT group in response to improvements in planning abilities. Cognitive deficits are now seen as worthwhile targets for intervention and a change in cognition and functioning may lead to improvements in the long-term for those with adolescent onset schizophrenia.

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Validation of a cognitive remediation program for schizophrenia
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Cognitive remediation is a newly developed tool used to help improve information processing in schizophrenia, and indirectly, it can also help improve their everyday life. This new tool has been developed to complete the action of antipsychotics, whose effects on cognition have been proved limited. Cognitive deficits in schizophrenia can be very heterogeneous from one patient to another, that is why several authors underlined the relevance of proposing more individualized approaches. The RECOS program was designed in order to provide with an individualized therapy. The present validation study has been conceived to assess the benefits of the specific cognitive training given by RECOS compared to an aspecific training using a cognitive remediation program already validated, the CRT program.

We note that 138 patients diagnosed with schizophrenia according to the DSMIV criteria (APA, 2003) were recruited. The patients of the two groups did not differ significantly in age, sex and educational level. In RECOS group, patients