Social Cognitive Problem Solving Skills in Schizophrenia

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Impairment of social functioning has been considered characteristic of schizophrenia. According to current studies, poor social functioning is a prodromal and residual feature of schizophrenia, and people with schizophrenia who have poor social functioning are more vulnerable to relapses and a poor outcome.

Social cognitive problem solving (SCPS) has been hypothesized to be related to social functioning. The process of SCPS consists of receiving, processing, and sending skills. To develop a more effective psychiatric rehabilitation program, it will be necessary to investigate the role of neuropsychological factors in each skill.

This presentation will be focused on the processing skills of SCPS in schizophrenia. The means-ends problem-solving procedure (MEPS) (Platt and Spivack, 1975) was used to assess SCPS. The MEPS is considered capable of assessing one aspect of social problem solving, means-ends thinking. Neuropsychological deficits were examined concurrently. The severity of psychiatric symptoms and general functioning were assessed with the PANSS and GAF, respectively.

The results show a statistically significant correlation between the MEPS score and the total score of Idea Fluency Test demonstrated that task modification from responses requiring conversion of viewpoint were related to SCPS. This finding suggests that the ability to generate ideas but to ability to convert stereotyped ways of thinking.

Future research should continue to identify factors that contribute to the SCPS ability in schizophrenia.
Social Cognition in Schizophrenia

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There has been a renewed interest in assessment of “social cognition”, as a core factor in the development of competence in interpersonal skills. This construct evaluates the cognitive processes that underlie a persons’ beliefs about themselves, other people, social situations and interactions (Ostrom, 1984; Penn et al., 1997). The “Theory of Mind” test (ToM) measures a persons’ ability to conceptualize other people’s mental states, i.e. their beliefs, intentions and knowledge about a series of simple social interaction scenarios (Frith et al., 1994; Baron-Cohen et al., 1992).

The main aim of the present study was to assess Theory of Mind competence in subjects with chronic schizophrenia and to investigate whether such competence was related to schizophrenic symptoms as categorized in the three dimensional model (reality distortion, psychomotor poverty, disorganization) proposed by Liddle (1987).

Mental abilities were studied in 37 schizophrenics (DSM-IV) and 20 normal controls, reading to the subjects four Theory of Mind, ToM, stories and examining their ability to understand first (ToM 1) and second-order (ToM 2) false belief. The subjects were administered also the following neuropsychological tests: the Verbal Memory test (Novelli et al., 1986); the Verbal Fluency test (Novelli et al., 1986), assessing phonemic categories verbal fluency, the Tower of London test (Moric & Delahunty, 1996) to explore and identify impairments of planning processes specific of the frontal lobe, the Wisconsin card sorting test (Heaton, 1981), to study the visuo-spatial components of working memory. The clinical symptomatology was evaluated using the Scale for the Assessment of Positive Symptoms (SAPS; Andreasen, 1984) and Scale for the Assessment of Negative Symptoms (SANS; Andreasen, 1984).

Our study showed that people with chronic schizophrenia and normal IQ have significantly worse performances than normal controls in Theory of Mind stories. This was true for both first and second order stories. In first order stories (a false belief about the state of the world) significant differences were found among psychopathological dimensions, with psychomotor poverty group performing worse than disorganization subjects and reality distortion ones. As for second order stories (a false belief about the belief of another character), psychomotor poverty group performed worse than the other groups only in one of the four ToM stories.
Social Cognition and Social Functioning in Schizophrenia

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In this presentation, research is summarized regarding the relationship between measures of social cognition and indices of social functioning among persons with schizophrenia. Such research is a necessary first step in establishing the ecological validity of social cognition in schizophrenia. In a series of studies, one aspect of social cognition, emotion perception, was shown to have a modest association with ward behavior among inpatients with chronic schizophrenia.

Specifically, better emotion perception skills were significantly related to more adaptive and less maladaptive ward behavior, as measured by two different measures of ward behavior (i.e. the NOSIE-30 and SBS). In a third study, we investigated the association between various indices of social perception and social skill (as measured in an unstructured role-play) in a sample of stabilized out patients with schizophrenia. The results revealed generally weak-modest relationship between these domains. Overall, these studies suggest that social cognition, at least as measured by emotion perception tasks, have a stronger relationship with general ward behavior than with specific social skills. Future work in this area needs to address the following issues regarding the relationship between social cognition and social functioning; 1) Does this relationship change across phase and chronicity of the disorder? 2) How do other indices of social cognition (e.g. Theory of Mind) related to social functioning in schizophrenia? And 3) Can we develop measures of social functioning which better approximate social-cognitive processes than currently in existence?