Schizophrenia Spectrum Disorders: Similarities and Differences of Social Cognition

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Introduction: The term "social cognition" increased attention especially during the past 15–20 years, being considered a factor that could partly explain the deterioration of social functioning in persons suffering of psychosis. Social functioning represents one of the important domains for estimation the long-term evolution of schizophrenic spectrum disorders. The most important areas of social cognition are: emotion processing, theory of mind, social perception, social knowledge (social schema), and attributional style.
Material and method: In the present study we selected 63 subjects, hospitalized in Psychiatric Clinic of Timişoara between 1985–2005. They were divided into 3 samples of diagnosis according to ICD-10 criteria: A – subjects with schizophrenia, B – subjects with persistent delusional disorder and C – subjects diagnosed with schizoaffective disorder. Socio-demographic features were analyzed and the scales applied were BPRS (Brief Psychiatric Rating Scale) and SCRSP (Social Cognition Rating Scale for Psychosis).
Results: The study revealed deficit of social cognition in the 3 samples, with no significant statistical differences. Socio-demographic aspects are similar with other clinical studies.
Conclusions: deficit of social cognition is revealed both in persistent delusional disorder and in schizoaffective disorder, the highest deficit is detected in schizophrenia.

Keywords: schizophrenia spectrum disorder, social cognition, long-term evolution

Introduction

The term "social cognition" has an increased attention, especially during the past 15–20 years, because it was considered a factor that partly explains the deterioration of the social functioning of patients with psychosis. Social functioning represents one of the important domains that appreciates long-term evolution of schizophrenic spectrum disorders. Most studies shows that social cognition is a mediator between neurocognition and social functioning.

Social cognition refers to how people think about themselves and others in the social world. Nowadays there are authors who consider that social cognition involves perception, interpretation and processing of information related to the self, to others and to interpersonal interaction [1]. Social cognition can be defined as mental operation underlying social interaction which includes the human ability to perceive the intentions and disposition of others [2], or as the ability to create representations of the relation between itself and others and to use those representations easily to guide social behavior [3].

The most important areas of social cognition are emotion processing, theory of mind, social perception, social knowledge (social schema) and attributional style. There are many evaluation methods such as scales that rate social cognition, totally or separately in every area. The most elevated areas are emotion processing and theory of mind [4].

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Material and method

Subjects and sample features

Subjects in the current study were recruited from the Psychiatric Clinic of Timişoara, and hospitalized between 1985–2005 for a first psychotic episode. Due to low number of subjects the selection was based on inclusion/exclusion criteria, without the use of statistical methods.

Inclusion criteria:

1. First psychotic episode between 1985–2005, hospitalized in Psychiatric Clinic of Timişoara;
2. Current diagnosis is schizophrenia, delusional disorder or schizoaffective disorder, according to ICD 10;
3. Out-patients in the Clinical Ambulatory Timişoara;
4. Subjects agree to participate in the study.

Exclusion criteria:

1. Presence of personality disorders or mental retardation;
2. Presence of a disease caused by drug use or an organic disorder.

Subjects were divided into 3 groups:
1. group A – subjects with schizophrenia;
2. group B – subjects with delusional disorder;
3. group C – subjects with schizoaffective disorder.

Participants were diagnosed with schizophrenia, persistent delusional disorder and schizoaffective disorder using SCAN interview for ICD 10.

Hypothesis

1. deficits of social cognition are present in both groups with delusional disorder and schizoaffective disorder;
2. schizophrenic subjects present higher deficits of social cognition than those with delusional disorder or schizoaffective disorder.

Assessments

Clinical symptoms measures

The expanded version of the Brief Psychiatric Rating Scale (BPRS) was used to assess the current level of symptomatology of the subjects. The BPRS contains 24 items, which cover a wide-range of psychiatric symptoms. The BPRS is rated on a 1 to 7 Likert scale, where 1 indicates no pathology and 7 indicates severe pathology. For this study the BPRS total score for each group was examined.

Social cognition measures

For the evaluation of social cognition the Social Cognition Rating Scale for Psychosis (SCRSP) was applied. This scale contains 15 items which evaluate basic cognitive functions and social cognition. Every item of the scale, rated by the patient, has 5 degrees: 1 – never, 2 – rarely, 3 – usually, 4 – often, 5 – frequently. The first 7 items rate basic cognitive functions and the last 8 items evaluate social cognition.

Analysed parameters

1. socio-demographic data : gender, the average onset age, average duration of evolution for every group, educational, marital and professional status;
2. clinical data: BPRS score;
3. social cognition: SCRSP score.

Data analysis

Data processing was made with the SPSS-16 statistical program. $p<0.01$ values were considered statistically significant.

Results

Characteristics of the sample

Number of subjects was 63, divided in 3 samples: sample A with 22 subjects, sample B with 18 subjects and sample C with 23 subjects. More than a half were female (58.7%). The average onset age was 23.4 years for subjects with schizophrenia, 38.2 years for those with persistent delusional disorder and 29.2 years for patients with schizoaffective disorder.

The average duration of evolution for the sample with schizophrenia was 21.8 years, for persistent delusional disorder 11.3 years and for the schizoaffective sample 18.6 years.

Level of education was higher in patients with persistent delusional disorder, average of schooling years being 12.4, in comparison to schizophrenic subjects who have 9.7 years of schooling. The sample with schizoaffective disorder has an average of 11.4 years of schooling.

Table I. Characteristics of the studied groups

	Group A	Group B	Group C
Number of subjects	22	18	23
Gender			
Male	8	8	8
Female	14	10	15
Average age on onset (years)	23.4	38.2	29.2
Timeline of evolution (years)	21.8	11.3	18.6
Duration of schooling (years)	9.7	12.4	11.4
Family status (%)			
Married	24.7	57.2	64.8
Single	75.3	42.8	35.2
Professional status (%)			
Employed	0	1.1	35.3
Unemployed	100	98.9	64.7

In terms of marital status 24.7% of schizophrenic subjects are married, 57.2% of those with schizoaffective disorder and 64.8% of subjects with persistent delusional disorder.

Referring to professional status, most of the subjects are retired: 100% of schizophrenia sample, 98.9% of schizoaffective disorder and 64.7% of those with persistent delusional disorder (Table I).

Clinical aspects

The average scores obtained in BPRS scale were these: 78.2 in the sample with schizophrenia, 72.4 for schizoaffective disorder and 56.8 in subjects with persistent delusional disorder.

Social cognition evaluation

The application of Social Cognition Rating Scale for Psychosis revealed these values: 45.18 in schizophrenia, 32.36 in the sample with schizoaffective disorder and 23.23 in persistent delusional disorder. Statistically there are no significant differences between the 3 samples ($p >0.001$).

Discussions

Socio-demographic features revealed that most of the subjects were female, but this has no clinical significance due to reduced number of subjects in every sample. The only similarity is that schizoaffective disorder is more frequent among women. The average duration of evolution is long enough, because in most studies subjects had a shorter evolution. The average onset age is similar with that in the literature, earlier in schizophrenia, later in persistent delusional disorder, schizoaffective disorder being in the middle.

Schooling and familial features are the same with the literature. In terms of professional status most of the subjects are retired, economic aspects having an important influence.

The BPRS scores show intermediate values, due to the fact that subjects were interviewed outside the episode of illness.

Nowadays there are no studies for social cognition in schizophrenia spectrum disorders. Therefore, what do we know about social cognition in schizophrenia? First, subjects with schizophrenia display deficits compared with nonclinical control subjects. Second, these deficits are more severe relative to individuals with other psychiatric disorders such as depressive disorder (with psychotic symptoms). Third, the deficit of social cognition is stable over time, and is present from the first psychotic episode.

This comparison could be useful to appreciate the evolution of other psychotic disorders and also for psychotherapeutic interventions. Currently, international researches revealed that social cognition has an important role in psychosis and influences global functioning and prognosis.

Evaluation of social cognition, as other studies results, shows deficits of social cognition in schizophrenic spectrum disorders. The sample with schizoaffective disorder presents an increased deficit of social cognition compared with persistent delusional disorder. The highest deficit of social cognition is in the sample with schizophrenia and can be correlated with the high deficit of cognition. Evaluation of social cognition deficits is important because decreasing this deficit with psychotherapy we can determine the improvement of global functioning and of prognostic.

Conclusions

1. Deficit of social cognition is present both in schizophrenia and in schizoaffective disorder and persistent delusional disorder.
2. In schizophrenia this deficit is the most pronounced.

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