

Impairment of the emotion control and social functioning in psychoses with depressive-paranoid symptoms

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Background. The problem of social functioning is one of the most relevant at the present stage. Over the past decades, first being in the sphere of interests of social psychiatry it has become one of the main focuses of research in clinical psychiatry. The number of works on this topic is increasing and motivating researchers to look for predictors of violations in social functioning. Recently, a lot of attention in these studies is devoted to the study of social cognition. Though, the studies are carried out within the framework of individual nosology types. At the same time, in our opinion, it would be interesting to expand the study using the syndromological approach in the "broad field" of psychotic disorders.

Aim. Study of social cognition in patients with depressive-paranoid symptoms in psychotic disorders with the following nosology types: paranoid schizophrenia (F 20.0), schizoaffective disorder, depressive type (F25.1) and recurrent depressive disorder, current episode severe with psychotic symptoms of inpatient treatment at the stage of remission.

Materials and methods. 61 patients have been examined. They are divided into three groups according to nosology types: 1 group - 21 patients with a diagnosis of paranoid schizophrenia (F 20.0 - Sch), group 2 - 23 patients diagnosed with depressive type of schizoaffective disorder (F 25.1 - SchAD)) and group 3 - 17 patients suffering from recurrent depressive disorder (F 33.3 - RDD). The evaluation of social cognition, namely the level of emotion management, was conducted using the Russian-language version of the test of J. Meier, P. Selovey and D. Caruso "Emotional Intelligence" (MSCEIT V. 2.0) in the adapted version of E.A. Sergienko, I.I. Vetrova [1] *. One of the four branches of the test was used, namely, "Emotion Management", as well as PANSS and PSP scales.

Results. The MSCEIT test emotion control scales are within the normal range, but the ratios are different in three groups: in the group of patients with Sch (and is the highest among the three groups), the indicators of the regulation scale of their own emotional states in relation to the indicators of emotional regulation of the states of other people prevail. The opposite picture is observed in the group of patients with SchAD. At the same time, the group of patients with RDD has low rates on both scales, but they are close to the lower boundary of the norm. Consequently, at each of the nosology types there is a specificity of cognitive impairment caused by the major disease. It is also indicative that the clinical picture of schizophrenia and schizoaffective disorder is similar but opposite in terms of MSCEIT indicators. The revealed link of indicators of the function of managing emotions and the level of social functioning allows us to determine the "targets" for rehabilitation programs in Sch (regulation of emotional states of other people) and RDD (regulation of their own emotional states). However, in this study, no such "targets" have been detected in the SchAD. There has been detected no clear link between the level of social functioning and the severity of the negative (deficient) symptoms, which for a long time has been considered the main factor of social maladaptation, but our data require additional research and more observations.

Conclusion. The connection of certain psychopathological symptoms with the indicators of emotional management function allows to determine the "risk groups" among patients with each of the nosology types, which in advance can direct psychotherapeutic or psycho-rehabilitation measures focused on the correction of detected cognitive impairments.

Background

The problem of social functioning is one of the most relevant at the present stage. Over the past decades, first being in the sphere of interests of social psychiatry it has become one of the main focuses of research in clinical psychiatry. The latest trend is to determine the level of social functioning, namely, its recovery, as a criterion for the effectiveness of treatment. The number of works on this topic is increasing and motivating researchers to look for predictors of violations in social functioning. [2, 3, 4]. Recently, a lot of attention in these studies is devoted to the study of social cognition. [6, 9, 12]. Social cognitive functions determine how people think about themselves and others in the social world and process information in a social context [11]. However, research is carried out within the framework of individual nosologies [8, 10]. In our opinion, it will be interesting to expand the study using the syndromological approach in the "broad field" of psychotic disorders. Such a differentiated approach will allow identifying personal and social resource areas for each of the patient groups separately, which will enable them to identify specific focuses for improving rehab programs for them.

Aim

Study of social cognition in patients with depressive-paranoid symptoms in psychotic disorders with the following nosology types: paranoid schizophrenia (F 20.0), schizoaffective disorder, depressive type (F25.1) and recurrent depressive disorder, current episode severe with psychotic symptoms of inpatient treatment at the stage of remission.

Subject

Disruption of social cognitive functions in patients with depressive-paranoid symptoms in psychotic disorders within psychosis and the relationship of these disorders with certain psychopathological symptoms and level of social functioning.

Methods

The study was conducted at the Department of Psychiatry, Psychotherapy and Medical Psychology of the National Medical Academy of Postgraduate Education named after P. L. Shupika (Kyiv, Ukraine), clinical base - TMO "Psychiatry" in Kyiv. We examined 61 patients who were divided into three groups according to nosology: group 1 - 21 patients with a diagnosis of schizophrenia, paranoid form (F 20.0 - PN), group 2 - 23 patients diagnosed with a depressive type of schizoaffective disorder (F 25.1 - ORB) and group 3 - 17 patients suffering from recurrent depressive disorder with psychotic symptoms (F 33.3 - DDR). In the group of patients with PN, the average age was 38.3 ± 7.1 years, the average duration of the disease was 9.2 ± 4.7 years, and by gender, 36% of men and 64% of women. Among patients with CHD, the average age was 34.4 ± 8.3 years and the average experience of the disease was 4.7 ± 2.4 years, it included 29% of men and 71% of women. In the group of patients with DDR, the average age was 46.7 ± 6.2 years, the average duration of the disease was 15.1 ± 10.1 years, by gender, 23% of men and 77% of women.

Evaluation of social cognitive functions, namely the level of emotion management, was carried out using the Russian version of the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT V. 2.0) [1]. "Managing of Emotions" - one of the four branches of the test was used. This branch is part of

MATRICES Consensus Cognitive Battery [7]. PANSS [5] and PSP scales were also used.

Statistical data processing was carried out using methods of analysis of variance based on the Microsoft Excel statistical package.

Results

Emotion management measurement in the Mayer-Salovey-Caruso test was carried out by assessing the ability to regulate one's own emotional states (scale D) and the ability to regulate the emotional states of other people (scale H)

For the D and H scales comparison in further statistical processing of the results, the raw points were converted to standardized ones, which are similar to the Wechsler test value — their rate is 100 ± 15 points. The results of processing data in raw and standardized points are presented in [Table 1](#).

Groups	D scale (points)		H scale (points)	
	raw	standardized	raw	standardized
PS	0,27±0,04	100	0,260±0,03	90
SAD	0,25±0,04	96	0,30±0,06	101
RDD	0,24±0,02	92	0,264±0,03	91

Table 1. Mayer-Salovey-Caruso Emotional Intelligence Test results in three groups (raw and standardized points)

The results were within the normal range. But certain trends were observed: on the D scale, the highest among the three groups were results in the group of patients with PS, whereas on the H scale, results were highest in the SAD group. And in the group of patients with DDR, the indicators for both scales were quite low and closer to the lower limit of normal.

For comparison of scales ratio in different groups were used indicators in standardized points ([Figure 1](#)).

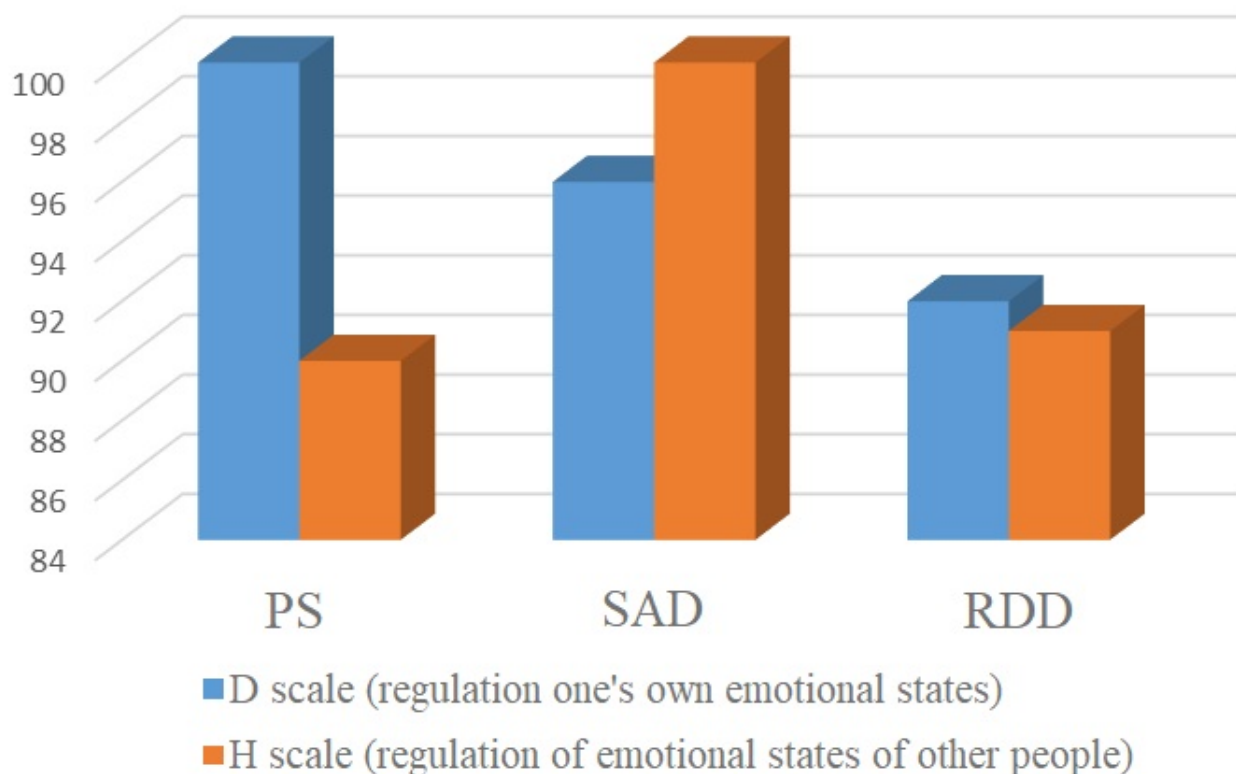


Figure 1. Scale results in groups (standardized points)

A certain “mirrorness” of the pattern of emotional control impairment was observed in groups of patients with PS and the SAD. In the first group, the D scale prevailed over the H scale. While in the second group, the opposite trend was observed. In the group with RDD, the H and D scales hardly differed from each other.

Connection between emotion management quality and psychopathological symptoms

Psychopathological symptoms were assessed using the PANSS scale. A correlation analysis of the MSCEIT test results and the PANSS scale was carried out. The results of this analysis, taking into account the general indicators of the scale (positive, negative, general symptoms on the PANSS scale) are presented in [Table 2](#).

A clear correlation between the general indicators of the PANSS scale and the indicators of the emotion control branch of the MSCEIT test was found only in the group of patients with PS. The negative correlation between the indicators of both the D scale and the whole branch of the control of emotions of the MSCEIT test with negative symptoms on the PANSS scale was determined.

RDD	D scale	H scale	Emotion control	“+” symptoms	“-” symptoms	General symptoms
D scale	1					
H scale	-0,35844	1				
Emotion control	0,379206	0,727906	1			
“+” symptoms	0,042545	0,083464	0,113976	1		
“-” symptoms	-0,04049	0,055483	0,025255	0,432344	1	
General symptoms	-0,00378	-0,12019	-0,1219	0,758526	0,321292	1

RDD	D scale	H scale	Emotion control	“+” symptoms	“-” symptoms	General symptoms
SAD						
D scale	1					
H scale	0,6372	1				
Emotion control	0,87226	0,932708	1			
“+” symptoms	-0,10604	0,221645	0,091022	1		
“-” symptoms	-0,39778	-0,31369	-0,38518	0,066255	1	
General symptoms	0,119519	0,168019	0,162542	0,732329	-0,11555	1
PS						
D scale	1					
H scale	-0,25476	1				
Emotion control	0,673288	0,543455	1			
“+” symptoms	-0,33019	0,200315	-0,13347	1		
“-” symptoms	-0,47168	-0,14316	-0,51892	0,23484	1	
General symptoms	-0,29363	0,21899	-0,08745	0,778633	0,365636	1

Table 2. The results of the correlation analysis of the MSCEIT test (a branch of emotion regulation) and the PANSS scale (positive, negative, general psychopathological symptoms)

As a result of the correlation analysis, the relationship between the indicators of ability to control emotions and psychopathological symptoms according to the PANSS scale was determined. The results are presented in [table 3](#).

Groups	D scale		H scale	
	Positive correlation	Negative correlation	Positive correlation	Negative correlation
RDD	P3 (hallucinations), N3 (poor rapport), G6 (depression)	-	-	-
SAD	-	N4 (passive/apathetic social withdrawal)		N1 (blunted affect), N4 (passive/apathetic social withdrawal)
PS	G3 (guilt feelings)	N5 (difficulty in abstract thinking), G1 (somatic concern), G5 (mannerisms and posturing), G8 (uncooperativeness), G14 (poor impulse control)	G1 (somatic concern)	G13 (disturbance of volition)

Table 3. The results of the correlation analysis of the MSCEIT (emotion control branch) and the PANSS scale (individual psychopathological symptoms)

In RDD group positive correlation was observed only between D scale and three symptoms -hallucinations, poor rapport and depression.

Group of patients with SAD was characterized by correlative connections between symptoms and H scale (regulation of emotional states of other people).

D scale was the most sensitive to symptoms in group of patients with PS. Negative correlation with five symptoms was determined: one negative symptom - difficulty in abstract thinking and four general symptoms -somatic concern, mannerisms and posturing, uncooperativeness, poor impulse control. In the same time there was positive correlation between H scale and somatic concern in this group.

The relationship between the ability to control emotions and the level of social functioning

For determining the level of social functioning in each group PSP scale was used. There was positive correlation between social functioning level and H scale results in group of patients with PS ($r=0,3240$, $p>0,005$) and D scale results in group of patients with RDD ($r=0,3160$, $p>0,005$). In group with SAD was no connection between social functioning level and MSCEIT scores.

Conclusion

1. The results were within the normal range, but the ratio was different in different groups: scores of regulation of own emotional states prevailed in PS group (and were the highest among three groups). In SAD group was the opposite situation. There were low results on both scales in RDD group, but scores were on the low end of normal. Consequently, with each of the nosologies, a certain specificity of cognitive impairment was observed, caused by the underlying disease. Also, indicative was the fact that schizophrenia and schizoaffective disorder, similar in the clinical picture, had the opposite picture of cognitive impairment.
2. The connection between the indicators of the function emotion management and the social functioning level was found, which allowed to determine the "targets" for rehabilitation programs in the PS (regulation of the emotional states of other people) and RDD (regulation of one's own emotional states) patients. But in this study were not found such "targets" in the SAD.
3. There was no clear correlation between the level of social functioning and the severity of negative (deficient) symptoms, which for a long time were considered the main factor of social maladjustment, but our data require additional research and more observations.
4. The connection of certain psychopathological symptoms with indicators of emotion control function allowed identifying "risk groups" among patients with each of the nosologies. Patients from these "risk groups" could later be sent to psychotherapeutic or psychosocial measures focused on correcting the identified cognitive impairments in advance.

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