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**INFLUENCE CLINICAL, SOCIODEMOGRAPHIC FACTORS ON
MENTALIZATION IN SCHIZOPHRENIC PATIENTS**

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Abstract

Modern society is characterized by a high level of social uncertainty, instability, transitivity, which cannot but affect the qualitative aspects of existing social groups. These social conditions appear to be associated with the abilities in mentalization: understanding of mental states, which is especially difficult for patients with mental illnesses. The present study attempted to differentiate the connection between such clinical features of mentalization impairments as pseudo-mentalization and “psychic equivalence”, revealed through the lack of cognitive processing of social experience (the “complexity of representations” and the “understanding of social causality”) and the deficiency of emotional investment to relationships. Thus, difficulties in interpersonal relationships, “social anxiety,” reinforcing the negative “affective tone of relationships,” are associated with low empathy ($p < 0.05$), while “limited affect,” increasing with the escalation of such deficiencies as “strange behavior and speech,” “general disorganization” and is also associated with reduced “understanding of social causality” ($p < 0.05$). In the course of studies, it appeared that individuals with a higher education, as well as qualified in social sciences and humanities, have stronger skills in cognitive analysis of mental states: in “complexity of representation” ($p < 0.01$) and “understanding social causality” ($p < 0.01$). Patients not included in different social contexts are losing interest in other people and communication with them, limited in education and work possibilities, are deprived of an important resource necessary for establishing mutual understanding and productive interpersonal interaction.

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Keywords: Mentalization impairments, empathy, schizophrenic spectrum disorders, socio-demographic factors, SCORS model.



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1. Introduction

- 1.1. Under the conditions of transitivity, precariousness (Butler, 2018) of a constantly changing, unstable society, it becomes more difficult for a person to differentiate internal processes from external ones, their own experiences from the emotional states of surrounding people. The range of possible difficulties expands when we talk about patients with mental illness, for example, with schizophrenia spectrum disorders.
- 1.2. To denote skills in self-understanding and interpersonal understanding, different concepts are used, such as social cognition, psychological insight, empathy, social, emotional intelligence, etc. In this paper, the set of features necessary for understanding the Other will be considered within the framework of the phenomenon of mentalization: the ability to imagine mental states, accompanying close personal relationships.
- 1.3. The specifics of mentalization revealed through the system of emotional-personal («affective tone of relationships», «emotional investment to relationships») and cognitive («complexity of representations», «understanding of social causality») features can be associated with pronounced clinical traits indicating interpersonal difficulties, disorganization of thinking and emotional sphere, as well as the socio-demographic characteristics of the individual (such as gender, age, marital status, level of education, chosen profession).
- 1.4. It is known that the presence of mental disorders is almost always associated with mentalization impairment (Sokolova & Andreyuk, 2018), manifested in such forms as concrete understanding: a condition when internal states are perceived and assessed as completely coinciding with what is happening externally (“psychic equivalence”); and pseudo-mentalization: a condition when the individual’s interpretation of the feelings and thoughts of the Other is based on the ideas that are detached from reality and are not functionally connected with the desire to understand the inner world of the Other (Bateman & Fonagy, 2004).

2. Problem Statement

The connection between mentalization derangement and various mental disorders is investigated. The data on the influence of transitivity, precarity, uncertainty of the sociocultural situation on the development of self-identity are given (Dodell-Feder, Ressler, & Germine, 2019). The main consideration of this article is the contribution of specific clinical and socio-demographic factors to the ability of mentalization. Individuals with mental disorders are a special social group: social isolation, stigmatization, hospitalization, incapacitation, that make these patients especially vulnerable to mentalization impairment, leading to even greater social exclusion.

3. Research Questions

The present study tests the hypothesis about the role of clinical and socio-demographic factors as mediators of mentalization impairment.

4. Purpose of the Study

Purpose of the study is to identify the connection between clinical as well as socio-demographic characteristics, and cognitive and emotional-personal characteristics reflecting the specificity of mentalization in groups of patients with schizotypal disorders and paranoid schizophrenia in comparison with the control group.

5. Research Methods

5.1. "Thematic Apperception Test" ("TAT") was applied to identify the individual and personal characteristics that underlie mentalization opportunities. The texts were analyzed with use of scales by Westen (1990): the SCORS model, which sets the basis for the systematic assessment of cognitive ("complexity of representations," "understanding social causality") and emotional-personal ("emotional investment to relationships," "affective tone of relationships") aspects of mental representations.

5.2. "The scale of emotional response" (Mehrabian & Epstein, 1972) was applied to identify the level of empathy.

5.3. The SPQ-74 questionnaire by Raine (adapted by Efremov & Enikolopov, 2001) was applied to analyze the severity of schizotypal traits as compared to the traits identified in the DSM-3 classification ("ideas about relationship", "magical thinking", "unusual sensations and perceptions", "strange behavior", "strange speech", "social anxiety", "lack of close friends", "limited affect", "suspiciousness"), grouped into three main factors: "cognitive-perceptual deficiency", "general disorganization", "interpersonal relations".

5.4. A semi-structured interview was applied to ascertain the socio-demographic indicators (gender, age, level of education: secondary or higher, qualification: technical or socio-humanitarian, marital status: presence or absence of a partner).

5.5. Sample: 40 patients with a diagnosis of schizotypal disorder (F 21) and 40 patients with a diagnosis of paranoid schizophrenia (F 20.1), treated at the Mental Health Research Center, Moscow, and 40 respondents with no psychiatric diagnoses. The number of men and women was equalized in all groups; there were two age categories within each group: from 18 to 29 years old, and from 30 to 45 years old.

6. Findings

6.1. Relationship between clinical traits and mentalization features in the studied individuals

Difficulties experienced by patients in the interpersonal sphere are confirmed by the data shown on the scale "interpersonal relationships factor" of the clinical questionnaire, which includes a subscale "ideas of reference". For the group of patients with paranoid schizophrenia, these features appeared to be combined with low empathy ($r = -0.365$, $p < 0.05$): patients with pronounced ideas about a direct connection between external social events and their own personality, cannot put themselves in the place of the interlocutor and feel his psychological state, being too absorbed in their own thoughts and captured by affects, which often provokes the impairment in understanding of the Other in the form of pseudo-mentalization. Low ability for emotional empathy in the patients of this group is also associated with "lack of close friends" ($r = -0.326$, $p < 0.05$). In addition, the higher the rates for "social anxiety", the more hostile the expectations of interpersonal communication are in these patients ($r = -0.347$, $p < 0.01$), at the same time, the high rates of "social anxiety" correspond to low empathy ($r = -0.444$, $p < 0.01$).

Table 01. Correlations of clinical traits and mentalization features in patients with paranoid schizophrenia

Scale	"Empathy"	"Affective tone of relationships"	"Understanding social causality"
"Interpersonal relationships factor"	-0.365*	0.001	-0.053
"Social anxiety"	-0.444**	-0.347**	-0.133
"Limited affect"	-0.400*	-0.135	-0.439**
"Strange behavior"	-0.326*	-0.096	-0.368*
"Absence of close friends"	-0.385*	-0.076	-0.298
"Strange Speech"	-0.471**	0.126	-0.056
"General disorganization"	-0.399*	0.012	-0.299

*Note: Significant correlation coefficients are highlighted in bold. * $p < 0.05$, ** $p < 0.01$.

Such traits as "strange behavior", "strange speech" and "general disorganization", inherent more in patients with paranoid schizophrenia, reflect their isolation from social norms and contexts, show correlation with low abilities in empathy and "understanding social causality" ($p < 0.05$, see table 1).

In the group of patients with paranoid schizophrenia the connection between "limited affect" (flattening of emotional life, poor emotional repertoire) and low empathy (-0.400 , $p < 0.05$) was also found, as well as the link with "understanding social causality" ($r = -0.438$, $p < 0.01$), which emphasizes the importance of emotional reflection not only for compassion, but also for the search of a truly psychological component in the causality of interpersonal behavior. Patients of both clinical groups miss the psychological component in describing the determination of social behavior, or their view of the influence the mind exerts on behavior is excessively one-sided. In patients with paranoid schizophrenia logical errors and inconsistencies occurred more often.

The clinical traits also appeared to be associated with the cognitive parameters of mentalization in the group of patients with schizotypal disorders: "cognitive-perceptual deficiency", "disorganization" and

“limited affect” inherent in these patients correspond to reduced possibilities of “understanding social causality” and low “complexity of ideas” ($p < 0.05$, see Table 2).

Table 02. Correlations of clinical traits and mentalization features in the group of patients with schizotypal disorder

Scale	"Limited affect"	"Cognitive-perceptual deficiency"	"Disorganization"
"Complexity of representations"	-0.405**	-0.287	-0.331*
"Understanding social causality"	-0.372*	-0.382*	0.180

*Note: Significant correlation coefficients are highlighted in bold. * $p < 0.05$, ** $p < 0.01$.

The descriptions of the person’s inner world by the participants of the control group included not only situational factors, but also more or less constant personality characteristics. They were less subject to stereotyped patterns, more open to understanding the psychological determination of behavior ($p < 0.01$).

Table 03. Correlations of clinical traits and mentalization features in the control group]

Scale	«Complexity of representations»	"Understanding social causality"	Scale
"Magical thinking"	-0.446**	-0.420**	"Magical thinking"
"Cognitive-perceptual deficiency"	-0.296	-0.313*	"Cognitive-perceptual deficiency"

*Note: Significant correlation coefficients are highlighted in bold. * $p < 0.05$, ** $p < 0.01$.

The cognitive aspect of Self-Other relationship representation in the control group can be associated with such clinical trait as “magical thinking”: the part of the surveyed group that demonstrates irrational thinking, is also, as a rule, characterized by low “complexity of ideas” ($r = -0.446$, $p < 0.01$, see Table 3). Obviously, in patients both magical thinking ($p < 0.05$) and complexity of cognitive analysis of representations ($p < 0.01$) are more pronounced. The main characteristics of mental representations in patients are: single-dimensionality (indicating only one feature that does not bring individuality into the image), difficulties in integrating mental qualities, split images of Self and the Other, features of diffusion, and also replacing a person’s psychological description with his external attributes, such as appearance, environment, behavior, formal status attributes, which indicates the predominance of mentalization in the “psychic equivalence” mode. Magical thinking (prevailing among those surveyed who have only secondary special education ($r = 0.223$, $p < 0.05$), along with a general cognitive-perceptual deficiency ($r = 0.259$, $p < 0.01$)) is understood as a way of establishing illusionary control over life. Such a person lives in the space of some rigid attitudes, limiting his own activity (including social) in the world. The connection between the high level of “magical thinking” and the low “understanding of social causality” ($r = -0.420$, $p < 0.01$) also fits into this interpretation: in this case, the person has a very limited set of descriptions of what is happening.

6.2. The connection between socio-demographic characteristics and the features of mentalization in the studied groups

Mentalization is the ability to understand the inner world, your own and the Other's, inside close interpersonal relationships. Therefore, it can be expected that the presence and quality of such relationships in a person's life will in a certain way affect the abilities for mentalization. Not many of the studied patients are in a relationship (14 patients out of 40 with schizotypal disorder and 12 out of 40 with paranoid schizophrenia), in comparison with participants in the control group (21 out of 40). The "affective tone of relationships" is more negative in patients compared to the control group ($p = 0.073$), which indicates their tendency to see the relationship as more hostile and emptier.

In patients with schizotypal disorder, the social circle is often broader than in patients with paranoid schizophrenia, but their interpersonal contacts are characterized by affective instability and social promiscuity, they are full of painful dependence, manipulation, and other destructive forms of behaviour, that are often stated as a model of family communication. Such relationships often involve blurred boundaries between themselves and the Other, causing difficulties in differentiating their own mental states from those of people around them.

The lack of close friends often correlates with a lack of motivation, interest in communication. Meanwhile, the prevalence of destructive forms of communication correlates with a distortion in motivation, with a shift in focus from the Other to oneself and one's own needs. So, the emotional attitude towards the Other from the patients of both clinical groups was characterized by reduced investment: a low "emotional investment to the relationship", in comparison with the participants in the control group ($p < 0.05$). The reduction of the emotional component of mentalization in some cases can lead to an oversimplified understanding of the inner world of the Other, to emasculation of interpretations, to the phenomena of "psychic equivalence" as an impairment of mentalization, to the omission of the psychological component in the explanation of interpersonal behavior, etc.

More often than not, the respondents who have a technical educational background did not have a partner: they have never been involved in a romantic relationship, and in most cases never had a close friendship ($r = -0.245$, $p < 0.01$), experiencing difficulties in social communication, which was indirectly confirmed by statistical results and was revealed, for example, in excessive suspicion ($r = 0.189$, $p < 0.05$), limited ability to express one's own emotional state and interact nonverbally with the interlocutor ($r = 0.221$, $p < 0.05$). It can be assumed that the choice of a qualification that is not related with human communication was largely made with regards to the low possibilities in this area.

Mental representations of those who have a higher education were more often characterized by depth and cognitive complexity ($r = 0.216$, $p < 0.05$); respondents with secondary special education, on the contrary, talked about thoughts and feelings in one-dimensional categories, or completely omitted psychological aspects from the description of social situations. The cognitive analysis of mental states: "complexity of ideas" ($r = 0.259$, $p < 0.01$) and "understanding social causality", were more accessible to individuals with a qualification in the social field and the humanities, unlike those who had a technical qualification ($r = 0.252$, $p < 0.01$). Apparently, the identified correlations can be interpreted bilaterally: both resourcefulness and abilities in understanding of the mind can contribute to making decisions about

the direction of future professional activity, and the need for constant involvement in solving problems related to communication, obviously contributes to the further development of skills in this area.

The links between mentalization features and such socio-demographic indicators as “gender” and “age” were not identified in this study, which underlines the fundamental importance of the “level of education”, “qualification” and “marital status” in the context of understanding of the mind.

7. Conclusion

7.1. Clinical traits and mentalization

In the patient groups a connection was discovered between the “limited affect”, which grows with higher rates in “strange behavior and speech”, “general disorganization” and “cognitive-perceptual deficiency”, and low abilities in “understanding social causality”, and also low “complexity of perceptions” ($p < 0.05$). These findings demonstrate the importance of the emotional component, intact thinking and the ability to grasp social contexts for a complete cognitive analysis of the internal states. Difficulties in the sphere of interpersonal relations, “social anxiety”, reinforcing the negative “affective tone of relationships”, are associated with low empathy, which deprives the mentalization of an important resource.

“Magical thinking” is associated with a decrease in “cognitive complexity” ($p < 0.01$) and “understanding of social causality” ($p < 0.05$) in the control group, which depletes mental representations.

7.2. Socio-demographic characteristics and mentalization

A limited social circle of patients with paranoid schizophrenia and the predominance of destructive models in interpersonal relationships of patients with schizotypal disorders are associated with a change in motivation, a decrease in the “emotional investment to the relationship” and a negative “affective tone” of communication, which gives rise to mentalization impairment in the form of pseudo-mentalization. Mental representations of those who have a higher education were more often characterized by depth and cognitive complexity ($p < 0.05$) in comparison with those who have a secondary special education. Those with a qualification in the social field or the humanities, unlike those who have a technical qualification, had better abilities in the cognitive analysis of mental states, showing higher “complexity of perceptions” ($p < 0.01$) and “understanding social causality” ($p < 0.01$).

7.3. Defining the group of patients with schizophrenic spectrum disorders as a special “subculture”

Thus, patients with schizotypal disorders and (especially) with paranoid schizophrenia exist in specific social conditions. They are exposed to frequent hospitalizations, stigmatization, disintegration in families, difficulties in raising children, loss of social connections and public interests, restrictions in getting higher education and a permanent job, which leads to desocialization, impedes the acquisition of skills in social interaction, which provokes escalation of clinical symptoms (“ideas of reference”, irrational thinking entailed by primary affects, “social anxiety”, “strangeness of behavior and speech”, “cognitive-perceptual deficiency”, “general disorganization”, “limited affect”) and leads to mentalization impairments in the form of pseudo-mentalization and “psychic equivalence”, reflected in the parameters

of cognitive processing (reduced "complexity of perceptions" and "understanding of social causality"), in the absence of emotional involvement and empathy.

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