

REVIEW

Dissertation on: Social Cognition and Relationship to Alexithymia in Severe Mental Disorders

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Kambouridis' dissertation thesis is in the specific area of disorders of social cognition and emotionality in severe mental illness, specifically schizophrenia. This is a challenging and difficult topic in clinical psychology. The dissertation is developed in four main chapters, contains 206 pages, a large number of cited literary sources in Cyrillic and Latin, many tables and graphs.

Kambouridis posits the interrelation between the difficulty of schizophrenic patients, even in the early stages of the disease, to recognize and process the emotions and mental states of other people, which makes communication, social adaptation and the healing process difficult. The first chapter is a scientific statement of the problem, in which the basic concepts of mental disorders, with their syndromes, symptoms and psychological characteristics, the history of schizophrenia as a disease, with biological, psychological and integrative theories, in historical and modern plan. The psychoanalytic theories of object relations for the paranoid-schizoid and depressive positions, for the models of insecure attachment, which are a risk factor for the onset of schizophrenic psychosis in adolescence and the specificity of delusions, are presented in detail. The contribution of cognitive psychology and psychotherapy to the understanding of positive and negative symptoms in schizophrenia, underpinned by genetic vulnerability and environmental stressors, is also presented.

In a subsection, an analysis of the cognitive deficits in the social dysfunction of schizophrenic patients is presented, and here the modern and modern researches in neuroscience and neurobiology related to the problematic functioning of metacognition, cognitive insight in the "social brain", in the modern theories of "Mind", which shed light on specific disturbances in the early stage of social relationships and mentalization in the premorbid personality. Kambouridis presents many contemporary scientific studies on specific details of social cognition impairments in schizophrenic disorder, such as deficits in the ability to understand the emotional messages and intentions of others, misidentification of emotional expression, irony, metaphor in communication. In the background, disturbances in the interconnected processes of automated and controlled processing of stimuli driven by a person's intentions and goals, which disrupts social adaptation. In a separate subpart, the doctoral student analyzes the current research in affective neuroscience and deficits in social cognition in schizophrenic disorder compared to disorders in bipolar, autistic disorders and dementia. The test tasks, which in recent years have been used by various authors in scientific research, to assess the understanding of mental and emotional complexes, are also described in great detail. In another subsection, the doctoral student also presents the dimensional approach in affective neuroscience, where specific brain structures, hormonal effects and neuronal circuits are linked to different emotional states, their regulation or disorders in schizophrenia. Here again, modern studies by Bulgarian and foreign authors are cited in great detail, showing the progress in revealing the causes and mechanisms of the occurrence and course of emotional disorders in psychoses, but also the unresolved answers and set goals for the future. It is in this field that Cambouridis places the goal of his scientific research.

In a separate subsection, the doctoral student presents for the purposes of her research the construct alexithymia, which she defines as multidimensional, including

difficulties in describing and identifying one's own emotional experiences, difficulties in distinguishing emotions from bodily sensations, limited phantasmal externally oriented thinking. Again, there is a rich overview of a series of scientific researchers, the differences between schools and authors, in the understanding of alexithymia, the psychological, neuroanatomical and neuropsychological description, the impact of early psychotraumas in development, the interweaving of alexithymia in psychosomatics and mental endogenous diseases. The review contains a description of scales and observation-based instruments for the assessment of alexithymia. There is an overview section on the relationship between alexithymia, social cognition and schizophrenia.

The second chapter presents an organization of the study, where the aim of the dissertation includes a theoretical and empirical study of the interrelationships between one's own and others' emotional states, levels of alexithymia, and strategies for emotional regulation in paranoid schizophrenia. 9 tasks and 5 main hypotheses are structured with additions to them laying out secondary details. The study was conducted over a two-year period in two stages, and in the pilot, conducted in 255 healthy controls and 5 patients, the scales for assessing alexithymia and emotional regulation were prepared. The main study included 49 patients with severe mental disorder - paranoid schizophrenia, selected with inclusion and exclusion criteria and 51 healthy controls. The demographic characteristics of all the examined persons are presented in detail. The toolkit includes 8 computerized tests for the study of affective experiences, a Bulgarian scientifically recognized development, with a wide perimeter of data analysis, with the doctoral student using the Threat Assessment Scale and the Displeasure Scale in neutral social scenes. The Toronto alexithymia scale, Bulgarian version of Popov (2016) with very good levels of test parameters and relevance to the research objectives, was used. Emotional Regulation Questionnaire - (ERQ, Emotion regulation questionnaire (Gross & John, 2003) and

Scale for negative emotional states related to depressive symptoms, anxiety and stress (DASS-21, Lovibond & Lovibond, 1995). Satisfaction scale of Life (SWLS) by W. Pavot and E. Diener (Pavot & Diener, 1993). The scales were adapted and standardized for the Bulgarian sociocultural context by other authors. The doctoral student applied research to patients about their attitudes towards health professionals and the effectiveness of their medical treatment, using six author-constructed questions. The examination of the patients is carried out in two stages, taking into account the reduced working capacity of the patients and the need to clarify the test tasks. A step-by-step modern statistical analysis of the data was made, following the logic of the tasks and hypotheses in the scientific research.

The third chapter presents the results of the empirical study. The factor analyzes performed in addition to the Bulgarian standardization of the Toronto Alexithymia Scale and the differences from Popov's research in the standardization of the test are described in great detail. A structural organization of the Emotional Regulation Strategies Questionnaire was also made.

In a subsection, the descriptive and descriptive statistics of the results of the scales in the experimental and control groups regarding the subjective emotional experiences, the scales for neutral social scenes and the feeling of threat are presented very concisely. In the next part, Kambouridis verifies the hypotheses and discusses the significant results. She brings out statistically significant differences in terms of gender, where men have more difficulties in identifying and describing emotions and sensations, outward-oriented thinking, alexithymia, emotional suppression. Patients with schizophrenia experience more intense feelings of threat, difficulties in identifying and describing emotions, more pronounced emotional suppression, depression compared to healthy people. But there were no significant differences in terms of stress and anxiety.

The correlative analyzes in patients and healthy people are described in great detail, with positive and negative interrelationships of varying degrees of prominence, for the various cluster combinations: between subjective dissatisfaction/pleasure, social cognition; alexithymia and emotional regulation strategies; stress, depression, anxiety, threat assessment; subjective well-being, emotional regulation strategies, life satisfaction. Very serious are the differences in the attitudes towards the healthcare services of the specialists, where patients with schizophrenia have a large part of positive, but also negative attitude towards the psychiatrist and the drugs, scattered and hesitant attitude towards the psychologist and the techniques he uses.

In the fourth chapter, Kambouridis makes a summary of the results, the hypotheses and a discussion, where he compares with data from scientific studies of other authors. Here, the doctoral student writes that the analysis and subsequent interpretations of residual positive symptomatology and disturbances in social cognition, manifested with increased levels of threat, threat, depression and suicidal risk, increased dissatisfaction with life, which require longer follow-up and psychological work, are important for social reintegration. At the same time, when patients are in remission they do not differ from healthy people in their subjective emotional experiences, but they often do not recognize their depression and anxiety. Patients mainly complain of somatic symptoms, and their levels of alexithymia are manifested in interpersonal difficulties. The doctoral student accordingly believes that they should be the focus of continued therapeutic work. Similarly, she interprets "the maladaptive strategy of emotional suppression that can lead over time to a discrepancy between the internal state and the outwardly manifested behavior," including reduced cognitive resource, memory disturbances for the emotional event, or mental illness. Here again, she recommends that psychotherapists train patients toward "more effective emotional regulation strategies." It is very important that this

happens in patients who are at risk of psychotic production because they mistakenly interpret neutral social stimuli as threatening in the methodology.

The doctoral student aptly suggests that the methodology be used as a projective one, in order to diagnose early prodromes or active psychotic production, underlying brain dysfunctions and deficits in social cognition. Analyzes of the complex interrelationships of alexithymia with levels of neutral social scenes, maladaptive strategies for emotional suppression and regulation, attitudes toward health professionals and therapy, and gender differences are also discussed. Again, specific therapeutic techniques have been recommended for psychotherapeutic work in these disorders.

In a separate subsection, Kambouridis provides a summary analysis of the world's research understanding of the differences or commonalities between schizophrenia and affective psychoses. Her research contributes data to this modern view of the "emotional paradox," which attempts to explain "the discrepancy between patients' observed emotional expression and their subjective emotional experiences."

In proportion to the data in her study, she "focuses on the subjective experiences of patients rather than objective markers, as from a psychological point of view this is an important element in terms of therapeutic resistance and the goals of a psychological intervention."

The doctoral student is planning for future research that will expand the study in the direction of how patients perceive other parameters of social cognition in neutral social stimuli. The limitations regarding the data from the Toronto alexithymia scale, the need to divide patients into subgroups with negative and positive symptoms, and a more in-depth future study of the relationship between alexithymia and depression are also very correctly defined.

In the conclusion and conclusions part, Kambouridis correctly defines what is an innovative part of the research compared to the Bulgarian clinical-psychological school. She defines very accurately in her analyzes and interpretations of the data, the specific contribution of the study that "patients with paranoid schizophrenia have a tendency to project their subjective emotional experiences onto external neutral scenes, while patients in a post-psychotic episode, these tendencies are expressed only in terms of feeling for threat and displeasure". Second, that "paranoia as a positive symptom is a separate construct independent of negative symptomatology and deficit symptoms such as alexithymia and maladaptive strategies for emotional regulation, that there is a relationship between impaired social cognition in relation to negatively valenced stimuli and levels of alexithymia." The specific recommendations for the practice of psychotherapists and clinical psychologists in patients with schizophrenia are also useful, when the specific manifestations of alexithymia in the social context are diagnosed. Very precisely, she recommends that "development of psychological interventions should be focused on awareness of one's own emotions in general and learning more adaptive emotional regulation strategies for greater treatment effectiveness and improvement of patients' overall quality of life." It is necessary to create complex approaches to work with the schizophrenic disorder" because drug therapy proves to be insufficient for positive change and social adaptation of patients with schizophrenia.

Kambouridis identifies five contributions of a theoretical nature and four contributions of an applied nature. All contributions are proportionate and correctly derived from the data, analyzes and interpretations in the conducted research, the content chapters are formed, where a comparative analysis is made with the data from other authors. The abstract corresponds to the dissertation and with the well-illustrated results, the complex analyzes and interpretations are very easy to understand.

In the presented edited second version of the dissertation, the doctoral student has taken into account all the recommendations made in the preliminary review and I have no critical remarks. The dissertation presents Kambouridis with extremely good professional skills as a clinical psychologist, scientific researcher and is an excellent certificate for the Department, personally for her and the scientific supervisor!

I suggest that Kambouridis prepare a Practical Guide as soon as possible, which will be extremely useful for those specializing in clinical psychology, psychiatry and psychotherapy.

In conclusion, I believe that the dissertation of Julia Kambouridis meets the high criteria for a doctoral degree, and I recommend that the members of the Scientific Jury, including myself, vote her the educational and scientific degree "Doctor" in the scientific field of Psychology (Clinical Psychology)!

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Reviewer: