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Schizophrenia plus – comorbidity of schizophrenia and personality disorders. Clinician's reflections

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Summary

The diagnostic criteria for schizophrenia and the diagnostic criteria for personality disorders refer to the same dimensions of mental functioning, except for the presence of typical psychotic symptoms in schizophrenia (hallucinations, delusions and catatonic behaviours).

Since schizophrenia is a psychosis with a predominantly chronic course, with exacerbations and steady course periods, a simultaneous diagnosis of personality disorders, which are also "permanent" in nature, and a significant part of which affect the same areas of mental functioning, in the same patient is at least controversial.

Although therapeutic interventions in patients with schizophrenia are mainly based on pharmacotherapy, psychotherapy and work with the patient's family are also important. Since pharmacotherapy is virtually ineffective for personality disorders, psychotherapy is the main form of management. This however does not constitute a justification for a simultaneous use of these two diagnoses in the same patient.

Key words: diagnosis, schizophrenia, personality disorders

I was inspired to share the below considerations by the desire to refer to the concept of the essence of schizophrenia. It was more than once that I have encountered a diagnosis of "schizophrenia" and "personality disorder" in the same patient. I found it puzzling and felt tempted to verify such a diagnosis. It seems to me that Kraepelin's criteria (dementia praecox), Schneider's first-rank symptoms and the Bleuler's four As criteria [1–4] allow to reflect on the key symptoms of the illness. Since these symptoms affect all spheres of mental life, it can be assumed that a situation when schizophrenia and personality disorders are two separate diagnoses in the same patient is difficult to understand. Naturally, the aforementioned scholars did not share their opinion on the possibility of a simultaneous diagnosis of two different clinical categories in the same patient; however, an analysis of their way of reasoning leads to doubts as to whether it is indeed possible to simultaneously diagnose, e.g., features of autism, association

disorders, blunted affect and four As as well as personality disorders as a separate diagnostic category in the same patient. The question is: on what basis? The analysis of Kempinski's work [5] did not allow me to identify his opinion regarding the possible co-existence between schizophrenia and personality disorders.

It would be naive to say that schizophrenia does not overlap with other disorders, either somatic or mental. The coexistence of schizophrenia with obsessive-compulsive disorders (a schizo-obsessive disorder?) or substance dependence is an example of the latter possibility. The coexistence of depressive and schizophrenic symptoms is another example. However, these symptoms differ significantly. On the other hand, some of the symptoms of schizophrenia and personality disorders are so similar that it is difficult to say how such a similarity may be the basis for a separate, yet simultaneous diagnosis of schizophrenia and personality disorders in the same patient. Simonsen and Newton-Howes [6] discussed resemblance between borderline personality disorders and schizophrenia. It is fair to agree with this as it is about diagnostic difficulties rather than the coexistence of schizophrenia and personality disorders.

A review of selected literature has shown that some authors recognize this coexistence. There are ongoing studies not only on the importance of some personality traits for the course of schizophrenia and therapeutic possibilities, but also on the incidence of personality disorders among schizophrenic patients. Unfortunately, these two terms (traits and personality disorders) are used interchangeably, which is difficult to agree with. For example, Moore et al. [7] used the term "personality traits" in the title of their article, whereas they reported in Conclusions that patients with schizophrenia were significantly more likely to meet personality disorder criteria compared to controls. Some authors even report the number (%) of such patients, e.g., 39.5%, and even from 4.5% to up to 100% [7]. These authors admit that the differences in the estimation of these proportions are due to differences in research methodology and diagnostic trends in different countries. Schroeder et al. [8] reported that 20% of patients with schizophrenia spectrum were simultaneously diagnosed with anankastic, asocial or borderline personality disorder, and then described a correlation between personality traits and symptoms of schizophrenia spectrum disorders. Goghari [9] found differences in the occurrence of personality traits or dimensions between patients with schizophrenia or their relatives and healthy population. It is impossible to disagree with this. According to Bo et al. [10], personality disorders, including antisocial personality, significantly increase the risk of aggression before therapy initiation. Does it mean that the treatment contributed to manifestation of the coexisting personality disorders? One can argue with this as it is not the presence of personality disorders as a separate diagnostic category, but the presence of personality traits that accounts for this phenomenon.

An interesting aspect in this discussion may be the attempt to differentiate between the clinical improvement (which regards individual symptoms of schizophrenia) and

functional recovery, however, psychiatrists agree that the latter depends on the severity of symptoms and on neurocognitive performance [11]. Lahera et al. [12] underline the lack of standardized tools to evaluate functional recovery. They see the impact of numerous factors which influence the functional recovery, however, the analysis of their work does not justify the possibility of recognizing schizophrenia and personality disorders as a separate diagnostic category.

Newton-Howes et al. [13, 14] discussed the impact of personality in illnesses such as depression, bipolar disorder, psychoactive substance dependence, and anxiety disorders, which cannot be disagreed with. They also claimed that personality disorders have a negative impact on multiple mental illnesses and can (at least partially) account for the incomplete response to treatment in these illnesses. Personality traits are certainly important in the course of many mental disorders (and not only). However, as opposed to schizophrenia, no disintegration of personality structure occurs in other disorders. In my opinion, the problem is that the authors of these studies completely ignored the essence of the development of schizophrenia symptoms, i.e., where these symptoms come from. Symptoms of many diseases can be easily explained pathophysiologically: pain, reddening and raised temperature due to inflammation, impaired mobility caused by a broken leg, etc. It should be also noted that the coexistence of two (or more) diagnostic categories with similar symptoms is common in medical disciplines (e.g., myocardial infarction in a patient with hypertension and hypercholesterolemia). However, the symptoms of MI, hypertension and hypercholesterolemia are easy to diagnose and differentiate as opposed to mental disorders. Depression can overlap with schizophrenia, while schizophrenia can overlap with substance dependence, etc. As already mentioned, Newton-Howes and Marsh [14] reminded that many interventions in patients with mental disorders are only partially effective, possibly due to the personality component. But it does not warrant a simultaneous diagnosis of personality disorders and schizophrenia. It is a commonly known fact that patients with schizophrenia show poor premorbid functioning. It has been also postulated that that some personality disorders occur before full-blown schizophrenia. According to Volavka [15], asocial premorbid behavior is associated with acute symptoms of schizophrenia; terminological confusion: the term “psychotic patients” is used in the title, whereas the term “patients with schizophrenia” is used in the text – are these two terms interchangeable? The author further elaborates that the risk of aggressive behaviors increases due to coexisting borderline personality disorders, asocial personality or drug abuse. In my opinion, this is not the basis for the diagnosis of schizophrenia and personality disorders as separate diagnostic categories that occur simultaneously in the same patient. Here, catatonic schizophrenia may be an example: there are no cases of such a diagnosis as “schizophrenia and catatonia”.

According to Simonsen and Newton-Howes [6], the fact that the loss of the sense of reality in personality disorders is dissociative rather than bizarre, as in the case

of many positive symptoms, is helpful in the differentiation between schizophrenia, schizotypal personality and borderline personality.

The issue of the essence of schizophrenia was discussed in detail by Parnas [16]. The author talks about the core of schizophrenia by referring to, among others, Bleuler. He also referred to Maj (1998), who criticized the DSM-IV concept of schizophrenia, which indicates what schizophrenia is not rather than what it is. By citing Bleuler, Parnas repeatedly referred to the characteristics of schizophrenia: "disaggregation, dissociation, disconcordance", and also mentions *Spaltung*, which means "split" in German (Kreapelin, Bleuler and Schneider were German-speaking psychiatrists). Bleuler also defined schizophrenia as a splitting of the mind [3, 13]. When referring to the fundamental features, he mentioned autism, formal thinking disorders, ambivalence, affective-emotional changes, will and behavioral disorders, as well as "changes in the structure of a person". Other researchers who referred to the Bleuler's concept, i.e., Minkowski, Stransky (as cited in Jones and Buckley [19]), considered "separation of parallel processes" to be one of the possible hypotheses for the origin of symptoms. Kahlbaum, who introduced the term catatonia, referred to *Spannungirresein* (from German *Spannung* – "tension, conflict") [2].

If we assume (as cited, e.g., in Bilikiewicz [20]) that schizophrenic symptoms are a result of personality structure disintegration (see also Jarema [21]), which may be currently perceived as an orthodox concept that not everyone is convinced of, then there is no justification for the simultaneous diagnosis of schizophrenia and personality disorders. A more recent study [22] refers to "a picture of schizophrenic psychotic disintegration comprised of various limitations of mental functions and their disorganization". The author does not mention personality structure disintegration; however, if disintegration and disorganization occur as a sign of pathology, "integration" and "organization" must have occurred first. Disintegration is sometimes "referred to, perhaps not very fortunately, as splitting" [22].

Although Kępiński [5] did not refer to personality disintegration, he used the term "increased autistic proportion" in illness development, with autism defined as opposing to information metabolism.

If there has been a disintegration of the personality structure, how can we simultaneously diagnose a personality disorder? Many of us may be critical of this view, if only because there is no convincing scientific evidence to support the theory of etioepigenesis. This theory can be accused of anachronism and ignorance of more recent views on the essence of this illness. However, the currently popular neurodevelopmental theory of schizophrenia is intended to explain the pathogenesis of this illness rather than the essence of its symptoms. Since some psychiatrists see the possibility of diagnosing personality disorders in a patient with schizophrenia, it would be good to know the rationale behind. I have the impression that this is difficult to agree with. The above and the following considerations can only be taken into account on one condition: if the idea that personality structure disintegration is the essence of schizophrenia symptoms is taken

seriously. But if not, then what is the essence of schizophrenia? I would like to remind that the term "schizophrenia" comes from the Greek *schizis*, that is, "to split or cleft".

Simonsen and Newton-Howes [6] reported that personality disappears or various personalities exist at different times in psychosis. This allows to consider personality pathology a key to the psychopathology of the schizophrenic process. The authors also indicate that significant changes in personality are a fundamental part of the course of the illness.

To better illustrate the problem, I compared the diagnostic criteria for schizophrenia and personality disorders according to the two most popular classification systems: ICD-10 and DSM-5 [23, 24] (Table 1).

Table 1. **A comparison of DSM-5 and ICD-10 diagnostic criteria for schizophrenia and personality disorders**

ICD-10	Schizophrenia	Personality disorders
	G1. Either at least one of the syndromes, symptoms and signs listed under (1) below, or at least two of the symptoms and signs listed under (2) should be present for at least 1 month of a psychotic episode. At least one of the following: Thought echo, thought insertion or withdrawal, or thought broadcasting; Delusions of control, influence, or passivity, clearly referred to body or limb movements or specific thoughts, actions, or sensations; delusional perception Hallucinatory voices giving a running commentary on the patient's behavior, or discussing the patient among themselves, or other types of hallucinatory voices coming from some part of the body Persistent delusions of other kinds that are culturally inappropriate and completely impossible Or at least two of the following: Persistent hallucinations accompanied by delusions. Neologisms, breaks, or interpolations in the train of thought, resulting in incoherence or irrelevant speech; Catatonic behavior; Negative symptoms G2. If the patient also meets criteria for manic episode or depressive episode, the criteria listed above must have been met before the disturbance of mood developed.	G1. Evidence that the individual's characteristic and enduring patterns of inner experience and behavior deviate markedly from the culturally expected and accepted range. This manifests in more than one of the following areas: Cognition (perceiving and interpreting things, people and events; forming attitudes and images of self and others) Affectivity (range, intensity and appropriateness); Control over impulses and need gratification; Relating to others and manner of handling interpersonal situations G2. It manifests itself pervasively as behavior that is inflexible, maladaptive, or otherwise dysfunctional across personal and social situations G3. There is personal distress, or adverse impact on the social environment. G4. There is evidence that the deviation is stable and of long duration, having its onset in late childhood or adolescence. G5. The deviation is not a manifestation of other mental disorders, although episodic or chronic conditions from sections F00–F59 or F70–F79 may co-exist, or be superimposed on it G6. Organic brain disease, injury, or dysfunction must be excluded

table continued on the next page

DSM 5	A. Two (or more) of the following must be present (one of the symptoms 1-2-3) Delusions Hallucinations Disorganized speech Disorganized or catatonic behavior Negative symptoms B. One or more major areas of functioning (work, interpersonal relations, or self-care) are markedly below the level achieved prior to the onset C. The signs persist for at least 6 months D. Schizoaffective disorders, major depression and bipolar disorder have been ruled out E. Not caused by substance abuse F. If there is a history of autistic disorder or childhood onset communication disorder, the additional diagnosis of schizophrenia is made only if prominent delusions or hallucinations are also present for at least a month (or less if successfully treated).	An enduring pattern of behavior that deviates markedly from the expectations of the individual's culture. This pattern is manifested in two (or more) of the following areas: Cognition and interpretation of self or other people Affectivity (the range, intensity, liability, and appropriateness) Interpersonal functioning Impulse control The enduring pattern is inflexible and pervasive across personal and social situations This leads to clinically significant distress or impaired functioning The pattern is stable and of long duration The pattern is not a manifestation or consequence of another mental disorder The enduring pattern is not due to drug abuse or a general medical condition

DSM-5 does not indicate the possibility of combining the diagnosis of schizophrenia and personality disorders. It should be noted that a statement that the pattern of behavior cannot be a symptom or a consequence of another disorder is one of the criteria of general personality disorders according to this classification system. The diagnostic criteria show that according to DSM-5, the diagnosis of schizophrenia may be accompanied by other mental disorders, such as autism spectrum disorder or communication disorder with childhood onset. However, this does not allow for a simultaneous diagnosis of personality disorders. Do the criteria of schizophrenia + signs of autism + communication disorders with childhood onset allow for the diagnosis of schizophrenia? As for the childhood onset, it may be considered to be poor premorbid functioning and, secondly, no one questions the hypothesis that many signs of impaired functioning may be discerned before the full picture of psychosis develops. Furthermore, neither of these categories (autism and communication disorders) falls under the group of personality disorders, and secondly, an additional diagnosis of schizophrenia established only when severe delusions or hallucinations are also present for at least a month (or less if successfully treated) is a necessary condition. This is controversial as the presence of delusions or hallucinations for at least a month should not be a precondition for the diagnosis of schizophrenia. Although it could be suggested that the diagnosis of a short-term psychotic disorder is adequate in such a case, this is not possible due to the fact

that in addition to hallucinations and delusions, speech disorganization must also occur in the latter case. Besides, the duration of these disorders is at least 1 day, but less than one month.

In ICD-10, there is no separate diagnostic category for "schizophrenia-like disorder" (also referred to as "schizophrenomorphic disorder") "with good prognostic features" or "without good prognostic features", as discussed in DSM-5 among schizophrenia spectrum disorders and other psychotic disorders [23, 24]. However, there is "schizotypal disorder" with the same criteria as those for schizophrenia, except for the duration: ≥1 month and ≤6 months.

A question arises whether the diagnosis of schizophrenia requires the presence of typical symptoms of this illness, e.g., Bleuler's 4As criteria [3] or Schneider's first-rank symptoms [4]. Since it is assumed that it is not necessary, both classification systems include diagnostic categories that allow for the diagnosis of schizophrenia when the disease picture is less typical. The ICD-10 criteria for "undifferentiated schizophrenia" are worth mentioning. This diagnosis requires meeting the general criteria of schizophrenia, but also the exclusion of other forms of schizophrenia and a confirmation that "the symptoms are so multiple that they meet the criteria of more than one form". Therefore, the diagnosis of undifferentiated schizophrenia is limited to a disorder that meets the general criteria of schizophrenia, but whose clinical picture does not allow to specify its form, i.e., rules out paranoid, hebephrenic, catatonic, residual, simple-type schizophrenia, and post-schizophrenic depression. ICD-10 also includes "other schizophrenia" and "unspecified schizophrenia" diagnoses; however, it does not specify any criteria for these two types.

It is natural to ask which criteria for personality disorders are sufficiently different from those for schizophrenia to separate these two diagnostic categories, so that they can coexist as separate diagnoses in the same patient. The G5 ICD-10 criterion of personality disorders according to which "the deviation must not be considered a manifestation or a consequence of other adult mental disorders, although episodic or chronic conditions from sections F00–F59 or F70–F79 may co-exist, or be superimposed on it" raises doubts when attempting to solve this dilemma. In other words, is it possible for such a chronic condition as schizophrenia to coexist or be superimposed on personality disorders? The question is how to distinguish which one is the primary diagnosis and which is a "superimposed or co-existing diagnosis". How can we decide which of these diagnostic categories was "first"? Why do we encounter situations when these two disorders are separated and both schizophrenia and personality disorders are diagnosed in the same patient despite the fact that many symptoms of schizophrenia may be similar to those of personality disorders (e.g., difficulty communicating, orientation toward oneself, altered images of self and others, emotional inadequacy, lack of control over impulses, etc.)? And the main question: what is it for? therapeutic purposes?

The relationship between personality traits and symptoms of schizophrenia can be discussed in the context of the schizoid personality. However, this is one diagnostic category rather than two separately diagnosed categories.

It would be a truism to say that a combination of pharmacotherapy, psychotherapy and work with the patient's family is the optimal strategy in the treatment of patients with schizophrenia. Therefore, does the therapy of personality disorders (except for pharmacotherapy) differ significantly from the management in such a patient? Although the therapeutic assumptions and methods are different in both these diagnostic categories, the most important thing is to realize that pharmacotherapy is ineffective for personality disorders. Besides, I have no knowledge of a methodologically correct study that would indicate differences in therapeutic efficacy in patients with schizophrenia compared to patients diagnosed with schizophrenia and personality disorders. Considering the above, does a patient with schizophrenia who is also diagnosed with personality disorders receive pharmacological treatment and a separate treatment for personality disorders?

It seems that a simpler solution is to say that a patient with personality disorders may experience psychotic episodes, but this does not determines a simultaneous diagnosis of schizophrenia. The term "hallucinogenic-delusional syndrome" or "paraphrenia" was used in the past. These diagnostic categories were created to differentiate between psychotic episodes and schizophrenia, or, colloquially speaking, it was assumed that not every psychotic episode was the same as schizophrenia. Such diagnoses no longer function in the current classifications of mental disorders.

A question arises why not to make a diagnosis of schizotypal disorder based on ICD-10 in such a case (a temptation to diagnose both schizophrenia and personality disorders)? According to ICD-10, this diagnostic category includes one of the possible (but not required) criteria: "occasional transient quasi-psychotic episodes with intense illusions, auditory or other hallucinations, and delusion-like ideas, usually occurring without external provocation". First of all, there is no definition of a quasi-psychotic episode. Second, this criterion is not required for the diagnosis of schizotypal disorder, while other criteria for this disorder are similar to those for personality disorders and at least four of them must be present. Among them, there are no hallucinations or delusions, but there are "unusual perceptual experiences including somatosensory (bodily) or other illusions, depersonalization or derealization", as well as "suspiciousness or paranoid ideas". It should be remembered that schizotypal disorder is discussed in the section "Schizophrenia, schizotypal and delusional disorders" of ICD-10, that is, in the section on psychotic disorders. However, this does not warrant a simultaneous diagnosis of schizophrenia and personality disorders.

Without departing from the ICD-10 classification, a diagnosis other than "schizophrenia + personality disorders", such as for example "other schizophrenia", "unspecified schizophrenia" or "schizoid personality" may be also considered. In the latter

case, however, there is a reservation: the diagnosis of schizoid personality does not include the criterion of psychotic symptoms, e.g., hallucinations or delusions, but it includes other symptoms very similar to those found in patients with schizophrenia, e.g., emotional coldness, withdrawal, limited ability to express friendly, warm feelings or anger, consistent choice of loneliness, etc. If such a patient develops psychotic symptoms, does it mean that the criteria of schizophrenia are met? Therefore, it is not possible to diagnose schizophrenia and schizoid personality in the same patient. In my opinion, the absence of psychotic symptoms (hallucinations, delusions) in the clinical picture does not exclude schizophrenia, but it does not justify a simultaneous diagnosis of personality disorder.

I attempted to compare the symptoms of schizophrenia with those of personality disorders to account for the controversy of the simultaneous diagnosis of personality disorders in patients with schizophrenia (Table 2).

Table 2. **A comparison of the symptoms of schizophrenia and personality disorders**

Schizophrenia	Personality disorders
Blunted affect, poor facial expressions, lack of higher affectivity, affective inappropriateness	Affectivity dysfunctions (range, intensity and appropriateness)
Social withdrawal	Disorders in relating with others and interpersonal situations
Hostility, aggression, lack of criticism	Disorders of impulsivity, rewarding needs, inflexibility, dysfunctionality
Lack of response to or adverse affect of behavior on the social environment	Adverse affect on the social environment
The onset is usually in adolescence, and the course is constant with periods of exacerbations	Stability and long duration of symptoms, with onset in late childhood or adolescence
Exclusion of organic disease and a disease caused by substance abuse	Exclusion of brain organic disease, injury or dysfunction

This comparison indicates, among other things, that since blunted inappropriate affect occurs in schizophrenia, then it seems impossible to distinguish this symptom from emotional dysfunctionality (range, intensity and appropriateness), which is a sign of personality disorders. Such examples may be found in the above table. Of course, critics may argue that some of the features of mental functioning can coexist in schizophrenic patients with other signs of personality disorders different from those of schizophrenia (e.g., blunted affect differs from emotional dysfunction consisting in irritability, explosiveness, etc.). However, aren't the two latter (irritability and explosiveness) found in patients with schizophrenia? This is already starting to feel like mathematics rather than psychiatry.

A question remains why the diagnosis of schizophrenia is superior and excludes the diagnosis of personality disorders. We assume that schizophrenia, as a mental illness, is a category that determines the disorder of all dimensions of mental functioning, including pure disease (psychotic) symptoms, and it necessitates appropriate treatment of the patient compared to personality disorders.

We may argue about whether the course of schizophrenia is of diagnostic importance. Schizophrenia is chronic in nature, and thus, even after periods of exacerbation (psychotic symptoms), the symptoms of the illness are still visible, for example, in the form of blunted affect, social withdrawal, or impaired criticism. Some also point to the so-called deficit symptoms. The symptoms of personality disorders are permanent and the alleged exacerbations are mainly the result of response to stress factors that force activation of the impaired functioning mechanisms. However, stressor-induced changes in the clinical picture are also seen in schizophrenic patients. So is there a difference between these two diagnostic categories?

In this context, it is controversial to include the criterion "deviation cannot be explained as a manifestation or consequence of other adult mental disorders, although episodic or chronic conditions from sections F00–F59 or F70–F79 may co-exist, or be superimposed on it" in the ICD-10 diagnostic criteria for personality disorders. It is difficult to imagine a situation where a disorder in sections F00–F09 could be "episodic", unless it is, for example, delirium in the course of another disease. However, delirium has a different clinical picture than this "disease". I have never heard of "episodic schizophrenia", but I have heard of episodic psychotic symptoms, but then again there is no basis to diagnose schizophrenia and personality disorders.

Recapitulation

The diagnostic criteria for schizophrenia and the diagnostic criteria for personality disorders refer to the same dimensions of mental functioning, except for the presence of typical psychotic symptoms in schizophrenia (hallucinations, delusions and catatonic behaviors).

Since schizophrenia is a psychosis with a predominantly chronic course, with exacerbations and steady course periods, a simultaneous diagnosis of personality disorders, which are also "permanent" in nature, and a significant part of which affect the same areas of mental functioning, in the same patient is at least controversial.

Although therapeutic interventions in patients with schizophrenia are mainly based on pharmacotherapy, psychotherapy and work with the patient's family are also important. Since pharmacotherapy is virtually ineffective for personality disorders, psychotherapy is the main form of management. This, however, does not constitute a justification for a simultaneous use of these two diagnoses in the same patient.

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