Personality Pathology and Schizophrenia

Erik Simonsen^{*,1,2} and Giles Newton-Howes³

¹Psychiatric Research Unit, Region Zealand, Slagelse, Denmark; ²Department of Clinical Medicine, University of Copenhagen, Copenhagen, Denmark; ³Department of Psychological Medicine, University of Otago, Wellington, New Zealand

*To whom correspondence should be addressed; Psychiatric Research Unit, Region Zealand, Faellvedvej 6, DK-4200 Slagelse, Denmark; tel: +45-20108293, e-mail: es@regionsjaelland.dk

The interaction of personality pathology and schizophrenia has conceptually been a topic of considerable interest in psychiatry. Recent advances in taxonomy and assessment of relevance to the clinician and researcher is presented. Cluster A and avoidant personality disorders are regarded as risk factors or antecedents for the development of schizophrenia. Some features of borderline personality disorder may resemble schizophrenia. With both a hierarchical structure and symptom-focused classification systems, personality pathology and personality disorder comorbidities can be overlooked. They can remain untreated because they are seen as part of the psychotic syndrome or superseded. A case formulation of a patient with schizophrenia is likely enriched by considering both these facets and may highlight comorbid personality disorder that warrants independent treatment.

Key words: schizophrenia/personality trait/personality disorders/comorbidity/outcome

There has been a general lack of research into the comorbidity of personality pathology in schizophrenia.¹ Personality pathology can be, however, prevalent early in the course of illness and continues throughout the lifespan. This raises questions related to diagnosis and taxonomy, comorbidity, treatment, and future research directions. Each of these questions will be reviewed in this article, taking a “translation to the clinic” approach to the answers.

Conceptualization and Historical Overview of Personality Pathology in Schizophrenia

From the earliest descriptions of schizophrenia, important changes in personality were seen as a fundamental part of illness course. Personality traits were seen as a premorbid predisposition, or vulnerability, in contrast to the more florid state psychopathology of the psychosis,

which may vary from time to time. Emil Kraepelin was the first to trace the early course of “dementia praecox,” coining the term “autistic temperament” to describe the detachment in premorbid personality.² He also considered personality deterioration inherent in the progress of schizophrenia. Kretschmer described different variations of liability in emotional expressions (“schizothymia”) and relatedness as the hyperaesthetic (hypersensitive, avoidant) and anesthetic (hyposensitive, asocial) temperaments. Pervasive, unwarranted mistrust, and hypersensitivity to criticism were also described by him and others,³ noting a link between early personality and later psychotic mental disorder. Bleuler further elaborated on these concepts, coining the term “schizoid,” used specifically to recognize the premorbid personality in people who would go on to develop schizophrenia. Bleuler⁴ described an anomalous self-experience and unstable sense of self/identity inherent to the inner life of a patient with schizophrenia. Developing this phenomenological tradition, Jasper⁵ focused on how a patient’s awareness of his or her own self and personality changed over time, with a profound transformation in the psychotic process. The feeling of being another person; that personality disappears or different personalities are present at different times was described as sentinel psychopathology in psychosis. This phenomenological approach considers personality pathology as key to the psychopathology of the schizophrenic process.

These early descriptive psychopathologists led to the psychoanalytic movement dominating academic and clinical thinking in the early and mid-twentieth century. The concept of “borderline states” was developed by Hoch and Polatin⁶ and elaborated by Knight.⁷ Using the Rorschach test, and fueled by the notion of psychotic regression, these authors described the “border” between psychosis and neurosis filled with vivid fluctuations of symptoms like: ego-weakness with transient micro-psychoses, chaotic organizations of sexuality, depersonalization, and ideas of reference. The psychodynamic

understanding of personality traits close to schizophrenia were revised and adapted by Rado,⁸ who coined the term “schizotyp,” an abbreviation of the schizophrenic phenotype, describing an inherent deficiency for pleasure and distortion of the bodily self.

As the growing emergence of neurobiology and modern statistical techniques started to shape the modern era of psychiatric taxonomy, significant strides were taken in applying these to both personality disorder and schizophrenia. Meehl developed a diathesis-stress theory of psychiatric disorder, based on these growing influences. He hypothesized neurobiological defects in the perceptual-cognitive and limbic motivation systems (the “schizotaxic” brain) to explain inherent core traits: “cognitive slippage,” anhedonia, ambivalence, and social anxiety seen in patients that later developed schizophrenia.⁹ He also championed the notion of statistical approaches to the development of personality taxons, one being the schizotyp taxon, a notion expanded on by Lenzenweger and Korfine.¹⁰ Zuckerman included personality in the diathesis stress models and distinguished between distal stressors occurring during development and those that occur in proximity to the disorder and how the interaction of environmental factors and diathesis leads to psychosis.¹¹ These modern iterations of psychiatric taxonomy saw a move away from personality disturbance as a key feature of the development of schizophrenia to diagnostic systems with a polythetic approach to classification, as opposed to the phenomenological tradition. This approach leads to clear singular diagnoses and the possibility of multi-morbidity. As this classification predominated, the American-Danish Adoption¹² studies paved the way for the split of schizophrenia spectrum personality disorders, introduced in DSM-III in 1980 on a separate axis II, where the borderline cases were developed to be encapsulated as the unstable “borderline personality disorder,” found within the cluster B personality disorder, and schizotypal personality disorder, in cluster A. Both noted a psychosis facet, with the former including a criterion of transient, stress-related paranoid ideation or dissociation and the latter including criteria for odd beliefs and magical thinking, unusual perceptual experiences, suspiciousness, or paranoid ideation. The schizoid, paranoid and schizotypal personality disorders, and the cluster A disorders, reflect the personality disturbances previously described in the psychotic realm.

Modern Taxonomic Approaches

The multi-morbidity issue, made explicit by the differentiating of personality disorder onto axis II in the DSM-IV, maybe an artifact of the multi-axial system in DSM, albeit a powerful modulator of clinical thinking. However, there is emerging research to suggest personality facets and schizophrenia are more closely aligned as originally described by the descriptive psychopathologists.

The transdiagnostic nature of psychopathology suggests there may be an underlying factor that accounts for the multi-morbidity found generally in major mental illness.

The most cutting edge articulation of this is the HiTOP model; a multivariate comorbidity model.¹³ The dimensional *hierarchical taxonomy* of psychopathology is based on factor analysis of multiple symptoms from large datasets. The model reflects the idea of a continuum between milder psychological problems to more severe symptoms and recognizes dimensions reflect differences in *degree*, rather than in *kind*. This allows dimensions to be organized into higher orders. The thought disorder spectrum was 1 of 5 spectra in the HiTOP model. It includes the schizophrenia spectrum disorders, mood disorders with psychosis, and the cluster A personality disorders. The other spectra are disinhibition, antagonism, somatoform, and core internalizing. In a recent study, the thought disorder spectrum was subdivided. A detachment spectrum included the schizoid, schizotypal, avoidant/social anxiety, paranoid, and psychosis, while a core thought disorder spectrum now only consisted of mania and psychosis.¹⁴ The HiTOP model provides a rationale for a dimensional diagnosis of personality pathology that would potentially provide greater clinical utility in patients with psychotic mental disorders, where a personality disorder diagnosis is often overlooked. Such approaches are consistent with models of psychosis development that have been conceptualized elsewhere adding strength to this argument.¹⁵

A further, albeit aligned, model is found in DSM-5 as an alternative dimensional model for personality disorder in section III: Emerging measures and models. In this novel approach, a new pathological personality model (Criterion B) was developed by the DSM-5 task force¹⁶ and operationalized in the Personality Inventory for DSM-5 (PID-5). Twenty-five traits are clustered to 5 order domains: negative affectivity, detachment, antagonism, disinhibition, and psychoticism. It identifies 3 traits to capture “psychoticism”: eccentric behavior, cognitive/perceptual dysregulation, and unusual ideas and experiences. In a recent study, the PID-5 psychoticism has been shown to be associated with syndromal psychosis, although only unusual ideas differed for the psychotic group as compared to the nonpsychotic.¹⁷

There remains a tension both academically and clinically between statistically driven and prototypic approach to personality taxonomy. This impacts profoundly on the consideration of personality in schizophrenia in the clinical setting. Statistical approaches provide a scientific rigidity and reproducibility although comorbidity clouds the clinical utility of this approach. Prototypic and phenomenological approaches are more contextual and provide theoretical understanding, potentially aiding formulation and understanding of the individual patient. There is, however, little chance randomized trials to guide management using this idiosyncratic approach will be developed in the near future.

Assessment of Personality Pathology in Schizophrenia

Current diagnostic conceptualizations have tended to downplay the importance of formulation, particularly in relation to prototypical narrative descriptions, focusing instead on a list of symptoms. Although current diagnostic lexicons do not favor one diagnosis over another, enabling consideration of personality disorder in the development and perpetuation of psychotic mental illness, this shift has led to a drift away from considerations of personality in schizophrenia diagnosis. There are several challenges in the assessment of personality disorder in schizophrenia, not the least being the focus of assessment. The latter primarily considers symptoms, while the former focuses on maladaptive interpersonal behavior, views of self and others, emotional understanding, impulse control and impact on social functioning. In busy in- and outpatient settings, it is difficult to find the time to adequately assess both in detail, and it is perhaps unsurprising that focusing on the more “ununderstandable” disorder, and one with a strong evidence-based tradition of psychopharmacology, takes precedence. This, of course, significantly disadvantages the patient and time needs to be found, likely at several reviews, to appropriately formulate the development of psychopathology and the interactions between patient, others, and the world. Although a myriad of factors are important, some provide a stronger sense of schizophrenia alone or the presence of a comorbid personality disorder. This allows an idiographic clinical approach to be based on current conceptualizations.

Against this background a careful examination of personality traits *prior* to the onset of psychosis will help to delineate the general personality profile. Personality assessment, as other evaluations like neuropsychological, should take place at an optimal time when the patient’s acute psychotic symptoms are remitted, usually within the first three months with less distortion of reality. One should also be aware that neuropsychological deficits might impinge on personality. Assessment focused on the most likely to be present from schizotypy: paranoid, avoidant, and borderline personality disorders is warranted. As insight into the functional disturbance caused by these characteristics may be unclear or minimized by the patient themselves, collateral history from family and those close to the patient is important.

Diagnostic differentiation between schizophrenia, the psychosis prone schizotypal personality disorder, and borderline personality disorder is important. Patients with personality disorder can generally correct psychotic distortion of reality related to stress, particularly as the stress abates. The quality of the psychotic experience also generally differs. The loss of reality in personality disorder commonly has a dissociative element, lacking the bizarre nature of many of the positive symptoms in schizophrenia. As with all phenomenology, there are

no pathognomonic experiences to ensure differentiation and clinical acumen will ultimately drive diagnostic decision making. The dissociated phenomenon have other contexts,¹⁸ and preliminary findings also indicate that self-disturbance in those with an ultra-high risk for psychosis are different from that of borderline personality disorder.¹⁹

Other self-reported psychotic-like experiences found in borderline personality disorder have similarities with schizophrenia, like the unstable self-image or sense of self and feelings of emptiness. Although these similarities exist, profound phenomenological differences clearly mark out borderline personality disorder as different from schizophrenia. For example, patients with borderline personality disorder are sensitive to other people’s attitudes and have a stable low self-esteem rather than the psychotic patient’s experience of a lack of nucleus of the self.²⁰ Patients with borderline personality disorder experience feelings of emptiness as an internalized sense of oneself as not being cared for, while in the psychotic patient is a profound, constant threat of loss of being in the world. The clinician should also be aware that the psychotic experiences seen in borderline personality disorders may be part of a co-morbid affective psychosis, substance abuse, side-effects of medication or antecedent for what is actually only later diagnosed as schizophrenia.²¹

Premorbid and Comorbid Personality Pathology

Empirical data examining early personality traits and later schizophrenia are sparse. Longitudinal cohorts require significant detail to account for the multiple potential covariates that are likely to impact on both disorders. What research there is indicates a significant and probable causal association,²² albeit more explicit evidence is early in development. Using NEO-PI-R high neuroticism and low extroversion seem to predict the onset of schizophrenia.²³ This is not surprising as neuroticism is a predictor for most psychiatric illness, and may simply suggest a high propensity for later mental illness generally.

An alternative method for examining premorbid personality is to directly ask patients.²⁴ Despite the recall bias problem, patients describe a schizophrenic illness as having a negative impact on their personality with maladaptive traits increasing over time. This implies an iterative process between early personality structure and psychosis whereby the former predisposes to the latter, which impairs the former and so on. Such a theory has important potential clinical implications as a focus solely on the psychosis elements of illness will not address personality pathology, which in turn may lead to a degree of treatment resistance. In general, it is true that the variation in phenotypes in schizophrenia is reflected in the variation in premorbid pathological personality traits, but endophenotypic manifestations are most commonly in the

cluster A presentations, with some evidence for elements of avoidance from cluster B.^{25,26} This mirrors the historical conceptualizations of personality discussed above.

Prevalence rates of personality disorders in schizophrenia vary widely, however, the median rate of ~40% is similar to that of other severe mental disorders diagnoses and infers a relationship between personality pathology and schizophrenia.¹ It is not possible currently to identify which personality subtype occurs most frequently. Studies of the National Epidemiological Survey on Alcohol and Related Conditions (NESARC) would suggest a higher prevalence rate of 60%,²⁷ although this may underplay the functional problems of personality disorder accounting for the higher rate.

One hypothetical reason for the association between personality disorder and schizophrenia is the possibility of an underlying characteristic(s) or trait(s) that increase the likelihood of developing both disorders independently, as opposed to personality problems in early life leading to schizophrenia. This cannot be tested by examining the prevalence data, but raises questions as to the interconnectedness of psychopathology, early personality traits, and later diagnosis and potential genetic contributions to both diagnoses.

Treatment of Personality Disorder in Patients With Schizophrenia

Currently, there is no empirical evidence to guide the management of comorbid schizophrenia and personality disorder treatment and, therefore, a pragmatic approach is required. As discussed, it makes little empirical sense to treat the schizophrenia without examining personality to assess if there are personality diatheses worsening the severity of the psychotic experience. If this is the case, and undiscovered, a failure or limited partial response to treatment for the psychosis may be interpreted as treatment resistance, when in fact it indicates continued personality pathology.

Best evidence suggests psychotherapy is the most appropriate first line treatment for personality disorder, in particular borderline PD, and consideration of a management plan that incorporates elements of personality focused therapy may assist in effective intervention in schizophrenia in such circumstances.²⁸ Notably, therapy for the treatment of schizophrenia itself has developed a sound research base, and should comorbidity exist this would suggest a psychotherapeutic approach is warranted. Accepting the lack of empirical guidance, an “*n* = 1” approach to treatment should be undertaken with interventions regularly assessed and clear outcomes monitored for. Although other research suggests the management of serious mental illness is worsened by comorbid personality pathology, we do not have clear evidence of this in schizophrenia and this is an area for

future research, as is the development of treatments for this comorbidity.

Clinical Implications and Challenges for Future Research

Personality pathology is historically part of the schizophrenia concept: as a disposition, the description of the prototype itself or as complication. Cluster A personality disorders and avoidant personality disorder seem most commonly to antedate schizophrenia. No common dimensions have so far been identified by factor analytic methods albeit a schizotypy taxon may be the strongest link candidate. Comorbid personality disorders may have significant detrimental effects on the course of schizophrenia as occurs in other serious mental illness. To this end, a thorough assessment of personality should be an integral part of a schizophrenia assessment, should occur early and iteratively. In the absence of empirical evidence, carefully tailored idiosyncratic interventions need to be developed. Future research should guide this treatment, improving the lives of those with schizophrenia and personality disorder.

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