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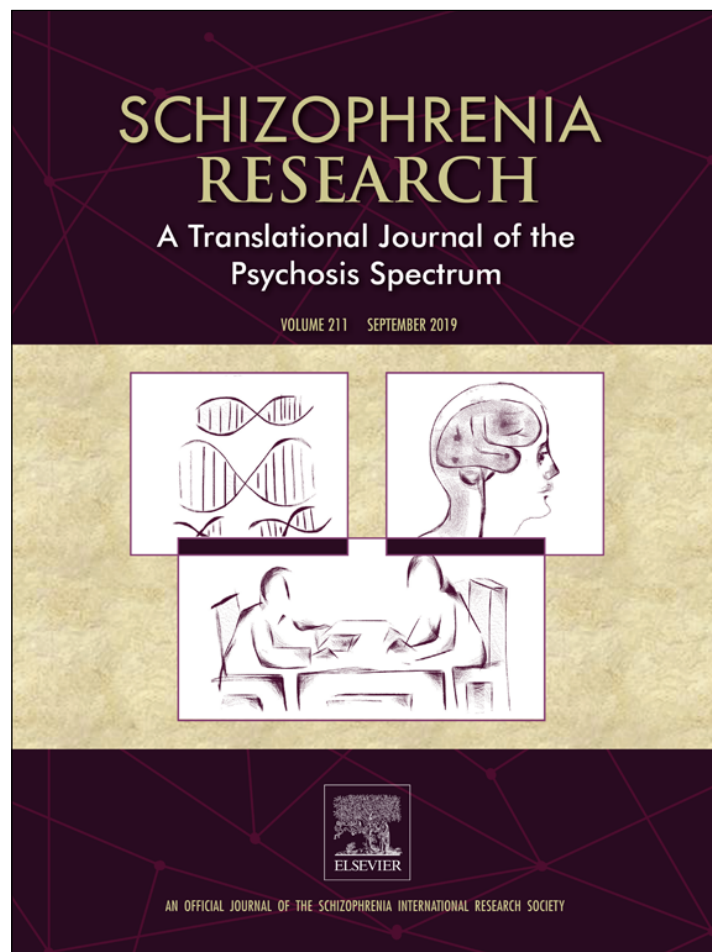
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Positive light on schizophrenia and aging: Commentary on course and predictors of symptomatic remission in schizophrenia: A 5-year follow-up study in a Dutch psychiatric catchment area, by Lange et al.

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When Kraepelin, a neuropsychiatrist colleague of Alzheimer's, first coined the term *dementia praecox* more than a century ago to describe schizophrenia, he conceptualized this psychotic disorder as a progressive dementing illness or a neurodegenerative disease (Kraepelin, 1971). Deterioration was an integral part of Kraepelin's description and diagnosis: "if no essential improvement intervenes, in at most 2 or 3 years after the appearance of the more striking morbid phenomena, a state of weak-mindedness will be developed, which usually changes only slowly and insignificantly" (p. 210). Since then, it has been a common perspective that the long-term outcome of chronic schizophrenia is dismal, with clinical deterioration most often leading to a terminal demented state. This negative view has continued to persist despite empirical evidence that schizophrenia is a heterogeneous disorder and a number of patients can experience more favorable outcomes. Manfred Bleuler, son of Eugene Bleuler who first introduced the term schizophrenia to rename Kraepelin's *dementia praecox*, was perhaps the first researcher to identify that remission could occur in schizophrenia over a period of time. He presented a view that schizophrenia was not necessarily a progressive condition, and that individual patients' course might manifest different outcomes, including remission. In his long-term follow-up, Bleuler found that 20% of patients with schizophrenia remained stable and were "cured" over a period of many years (Bleuler, 1983). Subsequent studies by Harding in the 1980s and 1990s also challenged the prevailing misconception of a progressively worsening clinical trajectory in schizophrenia and emphasized instead the considerable heterogeneity in the long-term outcome of this illness, with deteriorated states not being inevitable (Harding et al., 1987; Harding et al., 1992).

However, despite the publication of these facts and figures, the notion still persists that schizophrenia is necessarily a lifelong illness – a life sentence of sorts, and the nature of sustained remission is often questioned. Our earlier study of aging in schizophrenia reported that 8% of middle-aged and older adults living in the community, suffering from chronic schizophrenia with duration of several decades, met strict research criteria for sustained remission (Auslander and Jeste, 2004). These criteria included "normal" psychosocial functioning as reported by others, no

psychiatric hospitalization for at least previous five years, and either not being on antipsychotic medications or not taking more than half of the highest daily dose since enrollment. These findings indicated that sustained remission could occur even in patients with very chronic illness. Predictors of sustained remission include social support, early initiation of treatment, greater cognitive and/or personality reserve, and having a partner or spouse. Interestingly, neither age nor duration of treatment was predictors, suggesting that it is never too late to intervene or hold the possibility of remission. Such observations offer hope and suggest that remission rates could be much higher if people with schizophrenia received optimal care, which includes not only pharmacological treatment of psychiatric symptoms from an early stage but also general medical care and psychosocial and vocational support and resources.

The article by (Lange et al. 2019) further builds on the growing area of research suggesting that aging in schizophrenia is frequently associated with a potential for lasting symptomatic remission. This study is an extension of the authors' previous work investigating the longitudinal course of symptomatic remission in older patients with schizophrenia over a 5-year period (Meesters et al., 2011). These Dutch researchers found that the rate of remission substantially increased from 27.3% at baseline to 49.4% at follow-up. Notably, 26% of patients converted from non-remission to remission status over the follow-up period, with only 3.9% converting from remission to non-remission. Reduced positive symptom severity and having a partner at baseline were significant predictors of conversion to remission over the 5-year period. This is the first known longitudinal study of recovery and remission in older patients with schizophrenia employing a catchment area-based design. The authors appropriately acknowledged limitations of their investigation such as a small sample size, somewhat biased sample, and a lack of information about the life events or changes that might have occurred between the two assessments. At the same time, a noteworthy strength of this study is its inclusion of both community-living and institutionalized patients and of all patients regardless of the age of onset of the disorder.

These findings further support what has been reported in several other studies that even older adults with schizophrenia have the capacity to experience remission of symptoms and progress toward recovery. There is an important distinction between the models of remission and recovery in chronic mental illness compared to those for physical diseases. Unlike some cancers, remission does not entail a cure or imply that patients are free from the underlying etiopathology. Instead,

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recovery in schizophrenia should be conceptualized as the ability to live a meaningful, satisfying, and hopeful life *despite* the limitations imposed by symptoms, rather than resulting from elimination of symptoms (Bellack, 2006). Advocacy organizations, especially the National Alliance on Mental Illness (NAMI) and the National Empowerment Center, have been central to the recovery movement in serious mental illnesses. They have argued that the nature of recovery may be different from the traditional disease-oriented scientific-clinical concept centered on complete disappearance of symptoms and return to premorbid levels of function. This new perspective is consistent with improvement in mental health in later life despite worsening physical health in the general population as well as in people with serious physical illnesses, like cancer and HIV-AIDS (Jeste, 2018). Of particular relevance to older patients with schizophrenia, remission and recovery are akin to the definitions “successful aging” based on subjectively experienced well-being rather on objective presence and severity of physical illness. Aging in schizophrenia is associated with a paradoxical clinical profile of worse physical health but improved psychosocial functioning, including decreased level of psychotic symptoms, reduction in psychotic relapses requiring hospitalization, and better self-management (Jeste et al., 2011). The better mental health in later life centers on well-being, adaptation, attainment or maintenance of goals, positive attitudes toward the self and future, and social milestones and connectedness. Multi-component interventions that include lifestyle and other behavioral interventions, in addition to pharmacotherapy, are critical in optimizing successful aging in people with schizophrenia. Psychosocial interventions for schizophrenia have been shown to be associated with altered brain structure and function. For instance, cognitive enhancement therapy led to significantly increased brain-derived neurotrophic factor (BDNF) in the blood (Vinogradov et al., 2009), greater preservation of gray matter volume in the temporal lobes, and increased gray matter in the amygdala on MRI (Eack et al., 2010). Thus, although the underlying pathophysiology may continue to be present, these studies suggest that behavioral interventions can produce neurobiological changes, suggesting a possible biological basis for improved functioning observed in schizophrenia patients who achieve remission.

Where do we go from here? Despite growing empirical evidence that schizophrenia is heterogeneous in its presentation and course, a negative view of schizophrenia still persists. To change this bias, we advocate for positive psychiatry in conceptualizing schizophrenia and other serious mental illnesses. Positive psychiatry focuses on the promotion of mental health and well-being through enhancement of positive psychosocial factors relevant to mental and physical illnesses (Jeste et al., 2017). Focusing on the negative outcomes and disability associated with schizophrenia, most research attention has been directed in the past toward reducing psychopathology. However, mental health is characterized not only by an absence of symptoms but also by the presence of mental well-being and other positive outcomes, such as life satisfaction and happiness. Positive psychiatry offers an alternative and more empowering perspective from which scientists and clinicians should approach treatment for schizophrenia. Mental well-being and positive psychological traits can be and are present in schizophrenia, if we look for them. Although patients with schizophrenia tend to have lower mean levels of resilience, optimism, wisdom, happiness, and low perceived stress, there is considerable heterogeneity among patients, with one-third having levels comparable to those in healthy comparison subjects (Edmonds et al., 2018; Palmer et al., 2014). Furthermore, greater presence of such positive factors is significantly associated with improved physical well-being and even healthier levels of biomarkers of inflammation and insulin resistance (Edmonds et al., 2018; Lee et al., 2018). These findings suggest that mental well-being should be a treatment goal in schizophrenia to optimize a likelihood of remission. Although individuals with schizophrenia may report higher prevalence of adverse life events and generally worse physical health, these positive psychological traits are potentially modifiable and could promote both mental and physical well-being and

possibly curtail accelerated biological aging trajectories. Positive psychiatry provides a light at the end of the tunnel and gives hope to patients, their families, clinicians, and the public at large, thereby helping the process of eliminating the stigma associated with serious mental illnesses. Increasing the focus in mental healthcare on positive psychological factors such as resilience, optimism, hope, wisdom, and social support, is critical for promoting overall wellness in people with schizophrenia. A positive change in attitude about the chronicity of schizophrenia is necessary among scientists and clinicians, which in turn will effect a similar change among people with schizophrenia and their families. While we wait for the biological means of curing and preventing schizophrenia, we must strive to change the societal attitude toward persons with schizophrenia and improve the rates of recovery in this long-neglected group of people. A wise society is defined by how it cares for its most disenfranchised segments.

Contributors

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