Psychiatrist's view: What are the dimensions of schizophrenia?

Schizophrenia is often called a heterogenous psychiatric disorder with multiple symptom dimensions. Today, as part of our series for Schizophrenia Awareness week, we asked Professor Elmārs Rancāns, Professor of Psychiatry and Chair of the Department of Psychiatry and Narcology, Riga Stradins University about these symptom dimensions and their effect on functioning and quality of life.

Why do you think is schizophrenia called a multidimensional disorder?
Already 115 years ago, clinicians like Kraepelin and Bleuler noticed that schizophrenia is not a disorder of a single symptom domain. Kraepelin was more emphasizing the importance of the effect on cognition, meaning that the disorder is presented with a so-called early dementia, dementia praecox. In contrast, Bleuler was more focusing on fragmented thinking, describing his famous six A symptoms of schizophrenia (later community reduced it to 4 As).

Over the course of the history, clinicians started to focus more on the positive symptoms, as they were more pragmatic and easier for diagnostic purposes. In addition, as pharmacological treatments developed, they noticed that positive symptoms were the ones that were more responsive to available treatment options.

Over the last 20-30 years, clinicians started to acknowledge that there are not only positive and negative symptoms, but also affective and cognitive symptoms of schizophrenia as well, and therefore the focus of clinicians became much broader, asking: are there any ways of tackling all those different symptoms at the same time?

So yes, in my opinion, we can consider schizophrenia a multidimensional disorder.

In the psychiatric literature there are various descriptions of the symptom dimensions of schizophrenia; some describe it as tri-dimensional (positive, negative, and disorganized), while others believe that there are five or even more dimensions. How many symptom dimensions exist in your opinion and what are their characteristics?
Over the course of development of psychiatric research, following the early descriptions of positive and negative symptoms, researchers were looking for additional symptoms of schizophrenia. They were trying to understand the enigma of the disorder and define what are the typical - let's say - core symptoms of it. As a results, several different directions were developed; some of these concepts have failed, some of these concepts are still questionable, but some of the concepts have successfully defined the main symptom domains and became influential over the last 30-40 years. These domains are the classical positive symptoms, negative symptoms, the disorganized or cognitive symptoms, and affective symptoms as well.

Importantly, these clinical descriptions were not only interesting from academic research point of view, but also became the focus of attention in different type of interventions and treatment options, as the treatment goal was trying to tackle as much of these symptom domains as possible.

Over the last decade, there has been further progress in understanding the essence of schizophrenia and the core of negative symptoms were defined by an international expert panel. They have subdivided the negative symptom domain to additional symptoms such as blunted affect, alogia, avolition, asociality and anhedonia. These different presentations of negative symptoms, which should be carefully assessed and monitored, provided new treatment options and interventions for our patients.

Theory is often different from what is seen in real life. What is the relevance of the dimensional approach in the clinic in terms of both diagnosis and treatment?
Real life and theory do not always go hand in hand, but theory has always provided the guidelines for clinicians to open up their mind and think more broadly.

When clinicians treat a particular patient, it is very important to understand and carefully assess the whole spectrum of symptoms that the patient experiences. These different symptoms are like a puzzle: one should look for the possible treatment options as well as evaluate the potential outcome.

Therefore, the multidimensional approach is very important and necessary in the diagnosis and treatment of our patients. What we, clinicians, benefited from this theoretical concept, is the emergence of very pragmatic and easy-to-use categories and assessment tools. These are really helpful in the everyday practice.

Is it possible in your opinion to address all dimensions with one medication?
I think every doctor and every patient would love to have a "magic pill" which provides a solution to all existing symptoms. I think, at the moment, such medication does not exist and maybe we will never find it - but I am still optimistic.

The newer treatment approaches and medications should be able to cover as much symptom domains as possible. But most importantly, they should be able to address those symptom domains that are currently un-addressed and therefore represent an unmet medical need.

All in all, I hope there will be some promising compounds in the future.

Which symptom dimension is in your opinion most important to target in terms of functioning and quality of life?
Historically, positive symptoms such as delusions, hallucinations, bizarre behaviours and psychomotor retardation were the most visible symptoms of schizophrenia, disturbing both the patient and society. In response to that, the first antipsychotic treatment options provided dramatic improvement to all those symptoms.

However, as we learned through the decades, while positive symptoms are ultra-disturbing and controlled to a certain extent, they are not the ones that influence the functioning and quality of life of patients. Instead, we learned that negative and cognitive symptoms are the ones that influence these aspects and unfortunately, they are much more difficult to address in treatment.

Therefore, over the last 50-60 years, treatment developments were mostly focused on covering the positive symptoms and we had a large success there, but the negative symptoms were more neglected and forgotten. Not because clinicians were not recognizing them, but because we had less efficient tools and means available to help patients with those symptoms.

Nonetheless, what is really important for the patient in terms of functioning and quality of life, is being able to return to the previous level of functioning as soon as possible. Regarding this aspect, the negative symptoms cause the major problems. Being able to address and minimize them to at least a certain extent via medication would be one of the ways how we can efficiently help our patients, in combination with different type of psychosocial rehabilitation methods.