are "safe" may be contributing factors to their misuse. Hence, a major target for intervention is the general public, including parents and youth, who must be better informed about the negative consequences of sharing with others medications prescribed for their own ailments. Equally important is the improved training of medical practitioners and their staff to better recognize patients at potential risk of developing non-medical use, and to consider potential alternative treatments as well as closely monitor the medications they dispense to these patients.

The United Nations Office of Drugs and Crime is already assisting several governments in collecting epidemiologic data more efficiently as well as developing monitoring and training programs that ensure these drugs are available to those who need them while strictly avoiding diversion for nonmedical purposes.

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The concept of basic symptoms: its scientific and clinical relevance

The concept of basic symptoms originates from retrospective descriptions of the prodromal phase of schizophrenia, published in the first half of the 20th century and continuously developed through its second half[1]. It was not until the mid 1990s, however, that basic symptoms attracted a broad attention within two main lines of research: an empirical approach to early detection of psychosis[2] and a heuristic approach to define the Gestalt of schizophrenia by so-called "self-disorders"[3].

Basic symptoms are subtle, subjectively experienced disturbances in mental processes including thinking, speech, attention, perception, drive, stress tolerance, and affect[1,2,4]. Following training, they can be reliably assessed with a clinical interview from age 8 onwards using the youth and adult version of the Schizophrenia Proneness Instrument[5,6] (available at www.basicsymptoms.org). They have been reported in all stages of psychotic disorders, including prodromes and acute states of first episode and relapse, as well as residual states[1,2,4].

Basic symptoms are regarded as an immediate symptomatic expression of the neurobiological processes underlying psychosis and the earliest form of self-experienced symptoms – hence the term "basic". In contrast, attenuated and overt psychotic symptoms are assumed to develop later, as a result of poor coping with initial symptoms, such as basic symptoms, or stressors, when a vulnerable individual's protective mechanisms are overstrained[1,4]. With its focus on the emerging disorder, the concept of basic symptoms has been linked to a better understanding of the origins of psychoses, in particular schizophrenia, and to an improvement of their (early) diagnosis and treatment.

Initially, two criteria for the identification of basic symptoms were developed: cognitive-perceptive basic symptoms (COPER) and cognitive disturbances (COGDIS)[1,2,4]. COGDIS requires two of nine cognitive basic symptoms to occur at least once per week and is increasingly used as a clinical high-risk criterion in addition to ultra-high risk criteria[2,7]. The first meta-analysis comparing various clinical high-risk criteria found pooled conversion rates in COGDIS-defined samples of up to 61% at follow-ups of more than four years. Medium- and long-term pooled conversion rates of COGDIS samples were significantly higher than those of ultra-high risk criteria samples[7]. Thus, the European Psychiatric Association recommended ultra-high risk criteria and COGDIS to be used alternatively for psychosis risk assessment[7]. However, the presence of both COGDIS and ultra-high risk criteria appears to increase psychosis predictability compared to either criterion alone[2].

In spite of their neurobiological conceptual foundation, basic symptoms have only recently been considered in neurobiological studies of psychosis. Several correlates of these symptoms in psychotic and clinical high-risk individuals have been reported. These included changes in event-related potentials, neural oscillations, neurotransmitter systems, and large-scale networks as assessed with functional magnetic resonance imaging[4]. However, there is a need for further studies in clinical and non-clinical samples exploring the neurobiological correlates of individual basic symptoms and their relevance to the development of psychosis[4].

The basic symptoms concept has informed research on alterations of the very experience of the self as a core feature of schizophrenia[3,8]. Within this line of research, basic symptoms are an integral part of the so-called "anomalous self-experiences", "(basic) self-disturbances" or "self-disorders"[3]. Starting with E. Bleuler's characterization of schizophrenia as "a loss of unity of the personality", self-disturbances have always had a central role in the concept of schizophrenia, being explored by authors such as Minkowski and Blankenburg. Currently, alterations in self-disturbances, including the "development of an integrated sense of self" are believed to have common underlying neurobiological mechanisms[8]. Basic symptoms offer an empirical approach to test related hypotheses, such as perceptual incoherence or

progressive neurodevelopmental alterations (e.g., aberrant synaptic pruning) affecting the "neural circuitry of self"[8].

Another fundamental objective of research on basic symptoms has been to gain a better understanding of residual states. The assessment of basic symptoms can help evaluate the level of remission and guide treatment through combinations of pharmacological, psychological and rehabilitative interventions. Furthermore, treatment compliance might be improved by relating therapeutic strategies to basic symptoms that are self-recognized as deviations from "normal" mental processes. Finally, the recognition of basic symptoms can help educate patients and their families about the manifestation of psychosis and the expected changes that occur in the disorder, which is an important step towards stripping fear and unpredictability from "madness"[1,9].

In summary, the concept of basic symptoms has recently started to reveal its potential in psychosis research. So far, it is mainly recognized for its contribution to early psychosis detection and exploration of self-disorders as the assumed core Gestalt of schizophrenia. Deeper insight into the neurobiological origins of psychosis using the concept is only just emerging and will depend on its reliable assessment.

The benefit of the concept to psychosis treatment has unfortunately not been explored systematically. Furthermore, although basic symptoms are perceived as an integral part of psychotic disorders, several of them may also occur in other mental disorders, in particular organic and mood disorders[10]. However, the utility of the assessment of these symptoms outside the psychosis field has not yet been investigated. Thus, in many ways, the full potential of the concept remains unexplored.

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