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### **Editorials in This Issue**

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# The complexity of vulnerability to psychosis

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Schizophrenia is one the most puzzling mental diseases (Sullivan, 2012). Our understanding of its aetiopathological mechanisms is still far from being conclusive (Kendler, 2012). It is now being conceptualised as a neurodevelopmental rather than as a neurodegenerative illness, as it was conceived for decades (Weinberger, 2017), and psychotic disorders would lie on a continuum, from mild psychotic experiences observed in the general population to frank psychotic episodes. Recent studies have pointed out the role of a dopamine dysregulation in the mesostriatal circuit (Howes and Kapur, 2009) with an 'aberrant salience hypothesis' (Howes and Nour, 2016). According to this hypothesis, the dopamine release would result in an overattribution of meaning and motivational value (incentive salience) to irrelevant environmental events. Psychotic symptoms would be the final pathway of a complex dysregulation (Craddock and Owen, 2010), and their appearance would depend on a multitude of genetic and environmental factors that interact at various levels and in various modalities (Radua *et al.*, 2018). As regards genetic liability, recent genome-wide association studies have identified a total of 108 conservatively defined loci that contain common risk alleles, and which meet genome-wide significance (Schizophrenia Working Group of the Psychiatric Genomics Consortium, 2014).

As regards environmental factors, higher rates of schizophrenia have been found in ethnic minority groups (Jongsma *et al.*, 2018), in persons who are heavy cannabis smokers (Marconi *et al.*, 2016), in those who suffered from severe childhood traumas, in persons who have been reared in highly deprived settings (O'Donoghue *et al.*, 2016). Recent years have witnessed a renewed interest in social determinants of mental disorders, probably because neurobiological studies failed to identify the genetic variables or neurobiological pathways of mental disorders (De Rosa *et al.*, 2018).

The finding that many individuals who are at high risk of developing psychosis actually do not develop a full-blown syndrome is consistent with the hypothesis that schizophrenia results from the interaction of environmental, sociocultural, genetic, neuropsychological and neuro-developmental factors (Fusar-Poli *et al.*, 2017). The identification of risk factors associated with psychosis is therefore essential for improving our understanding and early detection of vulnerable individuals, and to propose tailored interventions for sufferers. In fact, the delivery of intervention as early as possible has become one of the priorities for mental health professionals and other stakeholders involved in mental health care (Fiorillo *et al.*, 2013; Malla *et al.*, 2017).

The role of vulnerability factors to psychosis has been addressed in two editorials in this issue of *Epidemiology and Psychiatric Sciences*.

Psychosocial disability represents a frequent prodromal sign of psychosis, which exposes the patients to long-term social marginalisation, economic disadvantages and reduces the effectiveness of available treatments. Several longitudinal catamnestic studies have found that psychosocial disability is already present in the first 3–5 years of the disorder, which is considered to be a 'critical period' amenable to change if effective treatments are provided (Birchwood and Fiorillo, 2000). In the first Editorial Griffiths *et al.* (2018) highlighted the need to develop multi-level psychosocial interventions in order to reduce psychosocial disability not only in ultra-high-risk patients or in patients with a full-blown diagnosis of schizophrenia, but also in the general population and in NEET people.

In the other Editorial, the role of migration as a relevant risk factor for psychosis is discussed (Dykxhoorn and Kirkbride, 2018). In particular, a wide heterogeneity between different migrant groups has been found in epidemiological studies, thus providing a model for differentiating the complex aetiological pathways of schizophrenia. These epidemiological findings have been recently confirmed by neuroscience studies, which found that migration and minority status are associated with structural and functional brain differences relevant to psychosis. The authors suggest the need to implement multidisciplinary population-based studies in order to define the role of other variables in shaping the risk for psychosis, beyond the migration process itself. In fact, migration is becoming very frequent and, therefore, is essential to understand the specific role of migration as risk factor for schizophrenia, in order to: a) develop a predictive model of transition into psychosis, b) propose adequate preventive strategies and c) reshape early intervention services (Fiorillo and Maj, 2018).

The complexity of schizophrenia is well represented in these two editorials, which clearly point out the need for an interdisciplinary approach to this disorder. What is needed in psychiatric practice is a global and integrated approach, which include screening procedures for individuals reporting specific vulnerabilities, in order to tailor and individualise treatment approaches on patients' needs (Slade, 2017; Puschner, 2018).

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