

Continuity and discontinuity in psychopathology: the converging role of risk factors and resilience for the pathways toward schizophrenia

Continuità e discontinuità psicopatologica: fattori di rischio e resilience nelle pathways per la schizofrenia

Risk factors and resilience

The role of clinical psychiatry today is to contribute to a “dynamic view” of biological, psychopathological and social factors. Indeed, in the light of recent contributions of gene-environment interaction ¹, a growing body of interest is emerging from concepts as risk factors, traumas, protective factors and resilience ². In particular, studies on early adversities have led to an increasing interest in the concept of resilience in psychology, i.e. the positive capacity of people to cope with stress and catastrophe. Furthermore, it can be used to indicate having an adaptive system that uses exposure to stress to provide resistance to future negative events ³. In this sense “resilience” corresponds to cumulative “protective factors” and is used in opposition to cumulative “risk factors”.

Great attention should be given to create a new open field of research for the study of risk factors, protective factors, clinical pathways and the connections between childhood psychopathology and adult psychopathology.

This kind of approach has historically challenged the relationship between the manifestations of psychiatric disturbances in childhood and in adult age; in particular, the traditional point of view of a chronicity of clinical course of psychiatric disorders has been replaced by a more dynamic psychopathological pathway; in fact, more recent studies highlighted a longitudinal pathway, and attempted to investigate the possible presence of clinical antecedents of adult psychiatric disorders. Therefore, such kind of research led to the development of the concepts of continuities and discontinuities in psychopathology between childhood and adult life.

The first studies of continuity/discontinuity in psychopathology originate from psychoanalysis (R.A. Spitz, J. Bowlby, S. Freiberg, M.D.S. Ainsworth), from Daniel Stern's “*Infant Research*”, from “*Developmental Psychology and Psychopathology*” (A.J. Sameroff, R.N. Emde, A.Sroufe) and from Pi-

aget's early studies. These authors analyzed the mechanisms of normal and pathological development, focusing their attention on the ability to adapt and to maladjustment of children in various developmental steps; in particular, great attention has been given to the mother-child relationship and to the various attachment styles.

In the last years, developmental psychopathology studies focused mostly on the early manifestations of adult disturbances and on the pathways throughout the course of the illness. In particular, converging evidence indicates that most patients who present for treatment are cases with long-standing histories of psychiatric problems in childhood and adolescence, either of the same (homotypic continuity) or a different type (heterotypic continuity) ⁴. So, the main purpose of this approach is to recognize the deviations from the psychopathological pathways in order to prevent consequences. Such growing awareness of a developmental perspective on mental disorders led to the performance of several longitudinal studies.

Childhood clinical antecedents

A fundamental developmental follow-back study ⁵ using prospectively collected data, revealed that nearly three quarters of adults with a psychiatric disorder had received a diagnosis before age 18, and approximately half had a disorder before age 15. Early neurodevelopmental disturbances and difficulties with social interactions have been well documented in schizophrenia. Murray's recent longitudinal studies (2004) provided strong evidence that delay in motor development as well as impairment in receptive language and attentional tasks are specific precursors of schizophrenia in adult life. In the New York High-Risk Study, attention deficits in childhood predicted 58% of the HR subjects who developed schizophrenia spectrum disorders as adults.

Premorbid vulnerability to schizophrenia may also be characterized by the presence of multiple Axis

I disorders during childhood and adolescence. Among externalizing disorders, conduct disorder is significantly associated with schizophreniform disorder in adult life. The relationship of schizophrenia to attention deficit hyperactivity disorder (ADHD) still remains controversial. While follow-up studies of clinical samples of children with ADHD have shown that childhood ADHD predicts only antisocial personality disorder and substance disorder in adulthood⁶, results from a retrospective study revealed premorbid diagnoses of ADHD for a substantial percentage of adults with psychosis. DJ Done's Birth cohort studies (1991) have found an association between delayed onset of urinary continence and later schizophrenia. These findings were supported by Hollis (2003), who reported that individuals with early-onset schizophrenia were more likely to have experienced premorbid social impairments and enuresis, compared to early-onset affective psychoses. Additionally, the same author found a specific association of enuresis with negative symptoms of schizophrenia.

In a recent research, a comparative study of axis I antecedents before age 18 of unipolar depression, bipolar disorder, and schizophrenia was performed. Interestingly, schizophrenia was significantly associated with ADHD, ADHD inattentive subtype, ADHD hyperactive subtype, and primary nocturnal enuresis, compared to unipolar depression, and with social phobia and ADHD inattentive subtype, compared to bipolar disorder. Oppositional defiant disorder was significantly associated with bipolar disorder, compared to the other clinical and control groups. The ADHD hyperactive subtype predicted adult onset of bipolar disorder compared to unipolar depression. The conclusion is that externalizing disorders seem of special importance as regards the clinical pathways toward schizophrenia⁷.

Early adverse experiences in psychiatric disorders

Besides studies of clinical antecedents, there is currently a growing body of research examining environmental factors in the etiology of psychosis. Much recent interest has focused on the relationship between childhood trauma and the risk of developing psychotic experiences later in life. Clinically it is imperative to routinely enquire about traumatic experiences, to respond appropriately

and to offer psychosocial treatments to those who report traumatic life events in the context of psychotic experiences⁸.

The role of childhood adversities within a bio-psycho-social model of psychoses has received renewed support from large scale population studies, suggesting that the relationship of childhood abuse and neglect with the broad category of psychoses is a causal one, with a dose-effect pattern. A recent review stated that "child abuse is a causal factor for psychosis and schizophrenia". Several psychological and biological mechanisms by which childhood trauma increases risk for psychosis merit attention, although a subsequent analysis⁹ criticized most reviewed articles as being small studies of diagnostically heterogeneous and chronic samples. Childhood adversities are significant predictors of several mental disorders, but it is unclear whether they are more associated with schizophrenia than with other major psychiatric disorders (e.g., mood disorders). The main hypothesis of this study was a greater association, in a dose-response fashion, of childhood abuse with schizophrenia, compared with unipolar depression.

A recent work found that, compared with general population, most types of early adversities (except sexual abuse and parental death) were significantly associated with both Major Depression and Schizophrenia. Compared with depression, all early adversities with the same two exceptions were significantly associated with schizophrenia; both frequency of abuse and number of types of abuse increased the risk of schizophrenia in a dose-response pattern, suggesting causality. These findings stress the role of social developmental factors in the etiology of schizophrenia¹⁰.

Perspectives: pathways toward psychopathology

The search of clinical antecedents and early adversities may contribute to identify a multifactorial approach for developmental psychopathology. As shown previously, schizophrenia is a very complex syndrome¹¹ and clinical antecedents and early adverse events may be important precursors of schizophrenia. To date, both these risk factors have been mostly studied separately. Therefore, an interesting approach is to investigate the converging roles of both of them to build developmental pathways for the onset of schizophrenia.

For example, in our preliminary data, we have found that in patients with externalizing disorders, the presence of emotional abuse is more strongly associated to the onset of Schizophrenia than to the onset of Major Depression. Moreover, in case of internalizing antecedents, both emotional and physical abuse are associated to schizophrenia. However, although much has been achieved in studying continuities and discontinuities in psychopathology, between childhood and adult life, major challenges remain and further research is necessary. In particular, a better knowledge of risk factors and clinical antecedents of mental disorders may give an important contribution to create early intervention programs in psychosis¹².

The key message, however, is that a “pathway” approach is necessary for improving understanding, treatment and outcome of psychiatric disorders.

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