

Early detection of schizophrenia: a clinical-psychopathological revision of the ultra-high risk approach

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Summary

During the last 20 years, early phases of psychotic disorders have become one of the major clinical and research issues in psychiatry. It is well known since the last century that schizophrenia and psychotic disorders are characterised by a subclinical prodromal phase that can last weeks, months, or even years before the onset of overt psychotic symptoms. The prodromal phase is important in defining potential risk-markers of progression to psychotic illness and as a target for new biological and psychological treatments to prevent a transition to psychosis. Furthermore, the focus on early phases of psychotic disorders may improve the long term outcomes of patients by reducing the duration of untreated illness¹⁻³. For all these reasons, during the last two decades a clinical "At Risk Mental State" syndrome and its operational criteria have been described leading to the development of two main early detection approaches: the ultra high risk approach (UHR) and the basic symptoms (BS) approach, each with its assessing instruments. Beside these, another important research front is that of anomalous self-experiences (ASE). ASE have been already widely detailed in early phenomenological descriptions of the core features of schizophrenia that might surface in the prodromal phases. The integration of these approaches could be of great value to enrich current operational criteria with a deeper, experience-close understanding of the unique, subjective perspective of individuals at risk of developing a psychosis. However, the integration of

these approaches is not a mere juxtaposition of terms. Indeed, the field of early detection is vexed by an increasing terminological confusion related to the lack of an international consensus catalogue of terms that facilitate the bibliometric proliferation of new expressions that do not allow facile comparison of results from all the early psychosis research groups worldwide⁴. Likewise, to date, a diagnostic category for prodromal phases has not yet been included in DSM or ICD despite the presence of the "attenuated psychotic syndrome" in the appendix of the new DSM-5 as a condition for further study⁵. From a conceptual point of view, the integration of UHR, BS and ASE approaches awoken the discussion about the existence or not of a psychotic continuum with schizophrenic and affective psychoses at the extremes. Indeed, if the former has been used for the evaluation and monitoring of individuals at high risk of developing a psychotic disorder, the latter describes and assesses a set of symptoms characteristic of schizophrenia spectrum disorders. In closing, we describe the clinical staging model as well as the clinical and research benefits and disadvantages that it could bring for early psychosis.

Key words

Early detection • Prodrome • Ultra-high risk • Basic symptoms • Self-psychosis • Clinical staging

Terminological issue

In the last 20 years, the focus has moved from timely recognition and phase-specific treatment of first-episode psychosis to the pre-onset period (prodromal phase)^{6,7}. This shift has revealed a critical "blind spot" in our mainstream classificatory systems that also affect the way to call and define early phases of psychotic disorders. In an interesting and recent paper, Schultze-Lutter and colleagues talk about a "near Babylonian speech confusion"⁴. The term prodromal, introduced for the first time by Mayer Gross in 1932, has been criticised because of its sense of unavoidable transition to a psychotic disorder.

In fact, in medicine, the prodromes are the first signs or symptoms of a disease before it becomes clinically manifest⁸. Thus, the retrospective concept of prodrome is unsuitable to capture prospective psychotic conditions⁹. In the 1990s, McGorry and colleagues coined the definition of "at risk mental state" (ARMS) to identify individuals with clinical features suggesting an impending disorder, but without the certainty of onset. Moreover, the concept of "risk state" is borrowed from medicine (e.g. a patient suffering from angina is at risk of developing an acute myocardial infarction). Similar or derived from the ARMS concept are terms such as ultra-high risk (UHR), clinical high risk (CHR) and early/late at risk state. Other

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terms commonly used are: prepsychotic state, subthreshold psychotic symptoms, early psychosis, subpsychosis and hypopsychosis. These terms are more descriptive than operational. Moreover, the so-called x-like experiences (psychotic, delusional, hallucination, schizophrenia – like experiences) refer to the experience of psychotic symptoms in the absence of psychotic disorder. Nowadays, these experiences are assessed by self-rating scales raising doubts about the real psychotic nature of the experience itself^{10 61}. As Schultze-Lutter and colleagues hoped for, to resolve the current confusion and to ensure the comparability between studies from different research groups, an international consensus catalogue of terms and their definition shall be developed⁴.

Conceptual issue

In the field of early detection of schizophrenia the definitional problem echoes a conceptual one. If there is not a univocal answer to the question “how to define prepsychotic experiences?” the same happens when trying to answer what to look for in individuals at risk for developing a psychotic disorder. There are a variety of symptoms that are assessed and called in different ways, and the principal ones are summarised below:

- attenuated psychotic symptoms (APS): subthreshold attenuated positive symptoms (e.g. unusual ideas, magical thinking, perceptual disturbances, paranoia/suspiciousness);
- brief limited intermittent psychotic episode (BLIPS): transient psychotic symptoms with spontaneous remission;
- basic symptoms (BS): subjective experienced disturbances of different domains including perception, thought processing, language and attention with an intact insight;
- anomalous self-experiences (ASE): non-psychotic disturbances of the person’s subjective experience of his own identity or “self”.

The focus on the above-mentioned symptoms and subjective experiences in people considered at CHR of developing a psychotic episode/disorder led to the development of three main approaches: UHR approach, BS approach and self-disturbance approach.

UHR approach

To date the UHR approach has been widely applied in different research and clinical settings worldwide¹¹⁻¹⁸. Over the years some modifications of UHR criteria have been made both within the same research group and between different ones, but the concomitant presence of state and trait risk factors plus a socio-demographic criterion (young person aged 14-30 years referred for health-

care) has always been maintained. The state risk is defined by the presence of APS or BLIPS, while the trait risk factors include decline of psychosocial functioning or sustained low functioning, genetic risk (first degree relative with a psychotic disorder) or schizotypal personality disorder, and unspecific prodromal symptoms. The focus on help-seekers applies a filter reducing the high number of false positives that could necessitate assessing large asymptomatic community samples. Indeed, before the development of the UHR concept, many studies focused on genetic risk (i.e. called “high risk approach”) by longitudinally monitoring individuals with a positive family history for a psychotic disorder. The recruitment of individuals on the basis of familiarity led to not only a high number of false positives, but also the loss of all those patients developing a psychotic disorder without familial risk. In 1992, Bell developed an alternative strategy to identify individuals at high risk of developing a psychotic disorder based on the concepts of “multiple-gate screening”, namely the satisfaction of more than a unique criterion to define the risk state in order to obtain a selected sample, and “close-in follow up”, namely a shorter time monitoring the onset of sign and symptoms coincident with the period of maximum incidence¹⁹. These acute intuitions were operationalised for the first time by the Australian group of Yung and McGorry in the mid 1990s. This led to the development of the UHR approach that was widely applied in the subsequent years by many research and clinical groups worldwide²⁰ (Table I).

Over the years many instruments have been developed for UHR assessment. The main ones are: CAARMS, SIPS/SOPS and ERIRaos. The Comprehensive Assessment of At-Risk Mental States (CAARMS) was developed by Yung and colleagues and is now widely used mainly in Australia, Asia and Europe²¹. The two main purposes of this instrument are to identify the imminent development of a psychotic episode and to determine if UHR criteria are satisfied. Indeed, all the three main UHR criteria (APS, BLIPS and supposed vulnerability) are investigated. The CAARMS is a semi-structured interview with many subscales: disorders of thought content, perceptual abnormalities, conceptual disorganisation, motor changes, attention and concentration, emotion and affect, subjectively impaired energy and impaired tolerance to normal stress. The Structured Interview for Prodromal Symptoms (SIPS) and the Scale of Prodromal Symptoms (SOPS) were both developed by Miller, McGlashan and colleagues at PRIME Research Clinic at Yale University and are mostly used in North America and Europe²². These two instruments are conjointly used to provide a systematic measure of the presence/absence of prodromal states, to measure the severity of prodromal symptoms and to define an operational threshold for psychosis. The SIPS consists of several measures: SOPS, Schizotypal Personality Disorder

TABLE I.Main international early detection research programs (adapted from Dominguez Martinez et al., 2011) ²⁰.

Programme	Aim	Method
Early Psychosis Prevention and Intervention Centre (EPPIC). Melbourne, Australia	To provide both early detection and specialised treatment for early psychosis and treatment-resistant psychosis; to evaluate the effectiveness of the EPPIC program on 12 months outcome in FEP in contrast to the previous model of care	Prospective clinical trial with historical control group. Patients with onset of psychosis between the ages of 16 and 30 using CAARMS criteria
The Personal Assessment and Crisis Evaluation Service (PACE). Melbourne, Australia	To improve understanding of the neurobiological and psychosocial processes during the pre-psychotic phase; to develop psychological and medical interventions and evaluate their safety and efficacy; to establish an accessible and appropriate clinical service for young people ARMS	Prospective longitudinal study. Patients between the ages of 16–30 identified as UHR for developing a psychotic disorder using CAARMS criteria
The North American Prodrome Longitudinal Study (NAPLS), United States	To establish consortium of prodromal psychosis research centres and integrate database	Collaborative multisite investigation, longitudinal database. The NAPLS represents the largest sample of prospectively followed at risk subjects worldwide
The European Prediction of Psychosis Study (EPOS). Germany, Finland, UK, Netherlands and Spain	It is the first European multicentre investigation focusing on early detection of persons at risk for psychosis	Prospective multicenter, naturalistic field study. Persons between 16 and 35 years with UHR criteria. Includes a comprehensive baseline assessment and 2 follow-ups, at 9 and 18 months
The Early Detection and Intervention Programme of the German Research Network on Schizophrenia (GRNS). Cologne, Bonn and Düsseldorf	To promote help-seeking and engagement with early intervention services for individuals at-risk of psychosis	Longitudinal Study. Young people suffering from possible pre-psychotic symptoms using the Early Recognition Inventory (ERInraos)
The Early Detection and Intervention Evaluation (EDIE) trial. United Kingdom (UK)	To indicate an identified high risk group and randomly allocate participants to a psychological intervention or to a monthly monitoring	A randomised controlled trial. People at high risk of psychosis using CAARMS criteria
The Prevention Program for Psychosis (P3). Torrelavega and Oviedo, Spain	To assess the effectiveness of an intervention program for the prevention of psychosis, in the medium and long term	Prospective intervention and longitudinal study. Patients between 16-30 years at UHR using CAARMS criteria
Programma 2000. Milan, Italy	To provide early detection and intervention in subjects at the onset of, at risk of, or showing “prodromal” signs of psychosis	Prospective intervention and longitudinal study. Patients between 17-30 years at ARMS according to UHR criteria
The Detection of Early Psychosis (DEEP). Turku, Finland	To describe psychopathology and deficiencies in neuropsychological, neuroimaging and neurophysiological examination of subjects vulnerable to psychosis	Prospective and longitudinal study. Patients are selected for a screening of prodromal symptoms (SIPS-SOPS criteria)
Early Treatment of Pre-Psychosis Project (TOPP)	To study whether patient to define prodromal states develop psychosis within a 5-year follow-up period	Longitudinal and prospective study. Patients at risk to develop psychosis according to SIPS/SOPS scales
The Prevention Through Risk Identification, Management, and Education (PRIME). New Haven, Connecticut, USA	To test in a double-blind study whether early treatment with an atypical antipsychotic compared to placebo can prevent or delay the onset of psychosis	Double-blind controlled trial. Patients who are judged to be at risk for psychosis according to SIPS/SOPS scales
The Recognition and Prevention of Psychological Problems (RAP). New York, USA	To prevent severe mental illness focusing on patients with possible prodromal symptoms or early symptoms of psychosis	Prospective longitudinal study. Patients between the ages 12 and 25 with prodromal symptoms or early symptoms of psychosis according to RAP prodromal criteria

der checklist (DSM-IV), family history questionnaire and Global Assessment of Functioning Scale (GAF). The SOPS includes different subscales: positive symptoms (unusual thought content/delusional ideas, suspiciousness/persecutory ideas, grandiosity, perceptual abnormalities/hallucinations, disorganised communication); negative symptoms (social anhedonia, avolition, expression of emotion, experience of emotions and self, ideational richness, occupational functioning); disorganisation symptoms (odd behaviour and appearance, bizarre thinking, trouble with focus and attention, personal hygiene); general symptoms (sleep disturbance, dysphoric mood, motor disturbances, impaired tolerance to normal stress). The Early Recognition Inventory (ERIRAOS) was developed in the Central Institute of Mental Health (CIMH, Mannheim) in association with the University of Heidelberg and is mainly used in Europe. The peculiarity of this instrument is that it permits the investigation of both UHR criteria and basic symptoms. It is a two-step procedure: a 17-item screening instrument is used to identify potential ARMS individuals and is administered by a general practitioner or other professional contact person; if the defined cut-off is reached, the individual should be referred to an early psychosis recognition centre for a more detailed risk assessment with the ERIRAOS complete symptoms list (110 items). This is divided in 12 sections: introductory questions; changes in mood, interest and drive; disturbance of sleep and appetite; changes in personality; dysfunctional behaviour; anxiety and obsessive-compulsive symptoms; thought disorders; disorders of self and delusions; impaired bodily sensations; abnormal perceptions; motor disorder and observed behaviour²³.

BS approach

Basic symptoms are phenomenally different from APS/PLIPS in the sense that BS are subtle, subjectively experienced subclinical disturbances in drive, affect, thinking, speech, (body) perception, motor action, central vegetative functions and stress tolerance²⁴. BS can occur not only in prodromal, but also in the residual phases of psychotic disorder and during psychotic episodes^{25,26}. The subjective feature of BS makes these symptoms accessible only to the suffering individual, differentiating BS from negative symptoms that are functional deficits visible from the outside. Indeed, avoidance or social withdrawal can represent BS coping strategies. Another feature of BS is insight: the patient realises that something new, strange and barely understandable and explicable is happening. Chapman²⁷ and Varsamis²⁸ firstly studied similar kind of experiences during 1960-1970, yet it was Gerd Huber and his research group to propose their first systematic exploration coining the notion of "Basic Symptoms". The choice of the term "basic" reflects the

idea of such symptoms as the first, immediate experiential expression of the presumed neurobiological substrate of vulnerability to schizophrenia. According to the BS approach, in the early phases of psychotic disorders, especially schizophrenia, symptoms occur in three developmental levels: the first consists of uncharacteristic BS (subthreshold alterations in drive, volition, affect, concentration and memory) that could spontaneously remit or gradually increase in number and severity reaching the second level of BS with more typical alterations in thinking, speech, motor action and body perception. In the absence of remission, the second level BS can evolve into third level BS represented by outright psychotic symptoms. The symptomatic rise to real psychotic experiences is often the consequence of a burn-out, an exhaustion of personal resources and coping strategies closely related to external factors such as familiar environments, social relationships, working/studying functioning, coping skills, resilience etc²⁹. The first instruments developed for BS assessment were the Bonn Scale for the Assessment of Basic Symptoms (BSABS)³⁰ and the Frankfurt Complaint Questionnaire (FBF)³¹. More recently, the schizophrenia proneness instrument [available in both Adult (SPI-A)³² and Child-Youth (SPI-CY)³³ version] was developed. To date, SPI-A/CY are commonly used to assess BS. By analysing data from the Cologne Early Recognition (CER) study, two BS subgroups were identified for the definition of the prodromal phase: the first, known as COPER, includes 10 cognitive-perceptive BS (thought interference, thought perseveration, thought pressure, thought blockages, disturbance of receptive speech, decreased ability to discriminate between ideas/perceptions and fantasy/true memories, unstable ideas of reference, derealisation, visual perception disturbances and acoustic perception disturbances); the second, known as COGDIS, includes 9 cognitive disturbances (inability to divide attention, thought interference, thought pressure, thought blockages, disturbance of receptive speech, disturbance of expressive speech, unstable ideas of reference, disturbances of abstract thinking and captivation of attention by details of the visual field). According to the results of German Research Network of Schizophrenia, the COPER BS group has good predictive accuracy. On the other hand, the COGDIS BS group has been used as a set of high risk criteria as an alternative to UHR³⁴. The combination of BS and UHR criteria may identify the highest risk of transition to psychosis in the next 18 months¹⁵. However, the average period between COGDIS/COPER assessment and onset of psychosis is longer than the one between UHR evaluation and first episode of psychosis, suggesting that BS are more appropriate for early detection of distal prodromal states (compared to more proximal ones indexed by UHR APS and BLIPS criteria).

Self-disturbance approach

From a phenomenological point of view, a core marker of psychotic vulnerability and above all of schizophrenia spectrum disorders is the concept of self-disturbance. Indeed, in early descriptions of schizophrenia the disturbances of the self always had a central role: Bleuler described *Ich-Spaltung* and *Autism*, both involving an affliction of the self, as the two basic features of schizophrenia³⁵; Kraepelin metaphorically depicted the disunity of consciousness typical of schizophrenia as an “orchestra without a conductor”³⁶; Jaspers sustained the possible affliction of the self in different aspects such as activity, unity, vitality, identity and demarcation³⁷. Furthermore, he described the “delusional mood”, that is the first experiential, qualitative crisis that precedes the delusional manifestation; a similar construct has been labelled “*trema*” by Conrad³⁸; along a convergent line, Minkowsky coined the expression “*le trouble generateur*”³⁹ to describe the loss of vital contact with reality and the interrogative attitude typical of the early phases of schizophrenia, whereas Blankenburg talked about the loss of natural self-evidence, the non-specific specificity of being unable to grasp everyday mundane significations⁴⁰. Nowadays, phenomenologically-oriented psychopathology still emphasises the importance of examining subjective experiences rather than focusing on behavioural symptomatic manifestations to grasp the real psychotic vulnerability. This conceptual lacuna in the current behaviouristic and neurobiological psychiatry is also evident in the field of early detection of psychotic disorders. The UHR assessment of state and trait factors surely has substantial pragmatic value in identifying individuals at risk for imminent onset of a psychotic episode, but partly neglects the subjective and unique psychopathological core of self-experienced vulnerability. Thus, it is important not to equate UHR criteria and psychotic vulnerability. The BS, developed by Gerd Huber and largely studied in Germany during the last decades, partly overlap with the self-disturbances described by Parnas and Sass (e.g. disturbances of consciousness and action, alterations in bodily experiences),⁴¹⁻⁴⁴ although self-disturbance tend to emphasise a global, gestaltic change of subjecthood. According to the model developed by Parnas and Sass, self-disorders represent psychopathological trait markers of psychotic vulnerability and especially of schizophrenia spectrum disorders. Indeed, the fact that prodromal and psychotic symptomatology is not restricted to any particular modality of consciousness (i.e. it can appear as a cognitive, perception or sensory disturbance) suggests that a more basic and essential feature exists. As Minkowsky said “... it is not this or that function which is disturbed, but much more their cohesion, their harmonious interplay in its globality ...”⁴⁵. As the self can be described as the first personal givenness of experience,

self-disturbance may be defined as pervasive or frequently recurrent experience in which one’s first-person experiential perspective or one’s status as a subject of experience or action is somehow distorted⁴⁶. These anomalous experiences are not yet of psychotic intensity and the patient is able to keep a distance from them⁴⁷. The instrument to assess these disturbances is the Examination of Anomalous Self-Experience (EASE)⁴⁸. It is a symptom checklist for semi-structured phenomenological exploration of experiential subjective anomalies that appear to reflect disorders of basic self-awareness. It has been developed on the basis of self-descriptions obtained from patients suffering from schizophrenia spectrum disorders. It consists of five domains: cognition and stream of consciousness, self-awareness and presence, bodily experiences, demarcation and transitivity, and existential reorientation. The exploration of ASE can be complex because of the difficulty for the patient to communicate these uncanny and often ineffable subjective experiences (they often need to draw upon metaphors to describe them). It is also difficult for the interviewer who needs substantial familiarity with the experiences described, as well as the ability to create an intimate but neutral interview climate, since the patient has probably never talked with anyone about his basic self-disturbances. Empirical research on self-disturbance indicates that the ASE specifically captures schizophrenia spectrum vulnerability, rather than a generic psychosis-proneness.

Clinical staging model of psychosis and future directions

Clinical staging differs from conventional diagnostic practice in that “it defines the progression of disease in time and where a person lies along this continuum of the course of illness”⁴⁹ and can provide a clinical-decisional framework for person-tailored early intervention^{29 50}. Clinical staging not only defines the extent of progression of a disorder at a particular point in time, but also where a person lies along the continuum of the course of an illness⁵¹. The rationale of such developmental model is that the earlier in the course of illness the treatment is offered, the safer and the more effective it should be in terms of long-term outcomes⁵². The clinical staging model is already widely used in medicine for those disorders that are potentially severe and inclined to progress if untreated. This is the case of the majority of psychiatric disorders, although the clinical staging model is not yet common in the psychiatric practice where disorders are strictly defined by outright symptomatic criteria. The concept of clinical staging related to early psychosis indicates a continuum of increasing risk, in which initially unspecific conditions phenotypically overlapping with the initial stages of other disorders gradually progress to

more crisply defined clinical-diagnostic profiles. A clinical staging model of psychotic and severe mood disorders, composed of four different developmental stages has been developed ⁴⁹:

- Stage 0 comprises asymptomatic individuals with an increased risk for psychotic disorders;
- Stage 1 is divided in two subgroups. Stage 1a consists of individuals with mild or non-specific symptoms and with mild functional decline. Stage 1b coincides with UHR individuals. These two subgroups are quite similar to early/late initial prodromal states described by German Research Group;
- Stage 2 includes individuals with a first psychotic/severe mood disorder;

- Stage 3 consists of three subgroups: incomplete remission (3a); remission and relapse (3b) and multiple relapses (3c);
- Stage 4 is characterised by the persistence of the psychotic/severe mood disorder.

For each of these developmental stages of the disorder, target populations, referral sources and potential therapies are proposed (Table II).

The usefulness of this model as a guide to early interventions is rather transparent since contemporary classifications (e.g. DSM, ICD) do not offer a clear framework for describing and managing the widespread subthreshold symptomatology that characterises the early phases of psychosis ⁵³. Indeed, to date, DSM and ICD criteria al-

TABLE II.

The clinical staging model framework for psychotic and severe mood disorders (adapted from McGorry PD, Hickie IB, Yung AR, et al. *Clinical staging of psychiatric disorders: a heuristic framework for choosing earlier, safer and more effective interventions.* Aust NZ J Psychiat 2006;40:616-22).

Stage	Definition	Target population and referral sources	Potential interventions
0	Increased risk of psychotic/severe mood disorder No symptoms	1 st degree teenage Relatives of a proband	Improved mental health literacy Family education Drug education Brief cognitive skills training
1a	Mild/non-specific symptoms Mild functional change/decline	Screening of teenage population Primary care physicians School counsellors	Formal mental health literacy Family psychoeducation Formal CBT Active substance misuse reduction
1b	UHR	Primary care physicians Educational agencies Welfare agencies Emergency services	Family psychoeducation, formal CBT Active substance misuse reduction ω3 fatty acids Atypical antipsychotics Antidepressants, mood stabilizers
2	First episode of psychotic or severe mood disorder	Primary care physicians Welfare agencies Emergency services Specialist care agencies Drug/alcohol services	Family psychoeducation Formal CBT Active substance abuse reduction ω3 fatty acids Atypical antipsychotics Antidepressants, mood stabilizers
3a	Incomplete remission	Primary and specialist care services	As for stage 2 but with additional emphasis on medical and psychosocial strategies to achieve full remission
3b	Recurrence or relapse of psychotic or mood disorder with residual symptoms or decline in neurocognition	Primary and specialist care services	As for stage 3a but with additional emphasis on relapse prevention and strategies to detect early warning signs
3c	Multiple relapses Impact of illness is objectively present	Specialist care services	As for stage 3b but with additional emphasis on long-term stabilisation
4	Severe persistent unremitting illness	Specialised care services	As for stage 3c but with more emphasis on tertiary treatment and social participation

low the diagnosis of stable disorders (e.g. schizophrenia), but not developmental conditions. Although in the new DSM-5 “Attenuated Psychotic Syndrome” has been added in the appendix as a condition of further study, some refinement is necessary. Due to the non-specific nature of prodromal symptoms, there are reasonable concerns about labelling early psychotic phases. First of all, there is the conceptual and practical danger that risk could be seen as disorder⁵¹. This is why the DSM-5 former proposal “psychosis risk syndrome” has been replaced by “attenuated psychosis syndrome”. Moreover, since psychotic experiences can appear even in benign conditions and in the general population, the possibility to expose false positives to unnecessary medication is real⁵⁴. Likewise, the majority of these patients will not develop a psychotic disorder (in a recent meta-analysis the transition rate is 22% at 1 year, 29% at 2 years and 32% at 3 years) calling the safety and utility of treatment in question^{55,56}. Another important counterargument is that (at risk) psychotic-spectrum patients, once labelled, might begin to see themselves as defective, unworthy, shameful as well as discriminated and stigmatised by others; it is likely that knowing that one is at risk to develop a disabling psychotic disorder will have an impact on how the person views himself and plans for the future⁵⁷. On the other hand, the clinical staging model and the inclusion of ARMS in traditional diagnostic systems could have potential benefits. The conceptualisation of stigmatising phenomena as existing across a continuum within the general population suggests the possibility that liability to psychosis is simply a human vulnerability depending on the interaction of both genetic and non-genetic risk factors, not differently from other medical fields where gradations of parameters or symptoms confer quantified risk for outright disease. Moreover, the coding of ARMS in traditional diagnostic systems would include a large number of patients that, at present, are not enrolled in psychiatric services, even if they have high levels of suffering. Indeed, according to both ARMS and APS criteria, symptoms must be sufficiently distressing and disabling enough to lead to help-seeking^{56,58}. Therefore, early clinical management could not only prevent a possible transition to psychosis and better and early treatment, but it can also ameliorate the impaired quality of life of these patients. Furthermore, clinical staging substitutes a taxonomy of risk to a categorical concept of psychiatric diseases hopefully leading to a rational stratification of treatment according to the different developmental stages of a disease⁵⁸. In this sense, psychosocial counselling and support should be more tailored to the early phases, in which no specific symptoms are detectable, while psychoeducation, family intervention, cognitive behavioural therapy and eventually psychopharmacology would progressively become more pertinent with the

emergence of more characteristic prodromal and psychotic states^{6,7,17,59,60}.

Conclusion

A contemporary early detection approach, while shaping pragmatic-descriptive criteria to conduct rational intervention-based research in help-seekers at high risk of imminent onset of psychosis has overlooked fundamental clinical phenomena associated with the prodromal phases of psychotic disorders. Although some the phenomenological insights have been incorporated in the at risk BS criteria (i.e. COPER/COGDIS), further contributions of phenomenologically-oriented psychopathology are worth emphasising. First, on the clinical-phenotypic level, recent empirical research has shown the relevance of structural disorders of subjectivity (i.e. self-disturbance) as an early phenotypic marker of vulnerability to schizophrenia spectrum conditions (including both psychotic and not psychotic expressions)⁶²⁻⁶⁴. Thus, integrating the exploration of self-disorders in contemporary ARMS models could further identify (within the pool of subjects at increased risk of transition to psychosis) those who harbour a higher vulnerability to schizophrenia. Second, on a more comprehensive level, a phenomenologically-guided approach can provide a more experience-close explication of the early clinical phenomena that accompany the development of psychosis. This is of value for both early risk stratification and for psychosocial and educational support.

Conflict of interest

None.

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