Supplementary Online Content


eAppendix. Review of Inclusion and Transition Criteria Used With Studies

eTable. Clinical High Risk (HR) for Psychosis

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Inclusion criteria for the high risk syndrome (HR)

Two broad sets of criteria have been used to define the HR syndrome: the “ultrahigh risk” (UHR) and the “basic symptoms” (BS) criteria. These criteria usually apply to help-seeking subjects aged 8 to 40 years.

UHR

The UHR criteria have been the most widely applied in the literature to date. Inclusion requires the presence of 1 or more of the following: attenuated psychotic symptoms (APS), brief limited intermittent psychotic symptoms (BLIPS), or a trait vulnerability plus a marked decline in psychosocial functioning (Genetic Risk and Deterioration Syndrome [GRD]).

BS

Basic symptoms are subjective disturbances of thought processing, language, and attention that are distinct from classical psychotic symptoms, in that they are independent of abnormal thought content.

Assessment Instruments for UHR

Three interview measures have been developed to assess UHR features: the Comprehensive Assessment of At-Risk Mental States (CAARMS), the Structured Interview for Prodromal Syndromes (SIPS) and the companion Scale of Prodromal Symptoms (SOPS), and the Basel Screening Instrument for Psychosis (BSIP). The CAARMS was developed by Yung and colleagues at the PACE clinic in Melbourne and has been widely used in Australia, Asia, and Europe. The BSIP was developed in the Early Detection of Psychosis Clinic (FEPSY) in Basel by Reicher et al. McGlashan and colleagues developed the SIPS/SOPS, which have become the instruments most used in North American studies. All 3 instruments are semistructured interviews and assess similar clinical features.
Assessment Instruments for BS

Basic symptoms were originally assessed using the Bonn Scale for the Assessment of Basic Symptoms (BSABS)\textsuperscript{14} and, more recently, the Schizophrenia Proneness Instrument, Adult Version (SPI-A), which allows a frequency-based severity rating of basic symptoms.\textsuperscript{15} These instruments focus on self-perceived cognitive and perceptual changes, ultimately clustered in 2 partially overlapping subsets relating to the COPER (10 cognitive-perceptive basic symptoms) and the COGDIS criteria (the 9 cognitive basic symptoms that are the most predictive of later psychosis).\textsuperscript{16}

Because the UHR and BS criteria relate to complementary sets of clinical features, there is an increasing tendency for centers to use both when assessing HR subjects.\textsuperscript{17}

Definition of Transition to Psychosis

In general, there is an acceptance within the field that the definition of “psychosis” is somewhat arbitrary.\textsuperscript{18} The intensity, frequency, and duration of psychotic experiences in HR subjects appear to vary along continua, and defining transition involves making a quantitative distinction between a symptom severity that corresponds to 1 of 2 categories (psychosis and nonpsychosis).\textsuperscript{19,20} Different studies in the HR literature have used different criteria to define the transition to psychosis.\textsuperscript{21} Within this literature, we identified 3 main sets of criteria that were used for this purpose: (1) “standard” criteria from the 2 major psychiatric diagnostic guidelines (\textit{DSM} and \textit{ICD-10}); and criteria from the main clinical schedules for the assessment of UHR subjects, the (2) CAARMS and the (3) SIPS. The standard criteria are based on the \textit{DSM-III-IV} or \textit{ICD-10} criteria for schizophrenia and other psychotic disorders. The \textit{DSM} defines brief psychotic disorder as an illness lasting from 1 day to 1 month, with an eventual return to the premorbid level of functioning. The concordance of \textit{ICD-10} acute and transient psychosis and \textit{DSM-IV} brief psychotic disorder is considered good.\textsuperscript{22} Under these criteria, psychosis can be diagnosed if 1 psychotic symptom occurs for 1 day, so this threshold is generally lower than CAARMS and SIPS, which have longer duration criteria.

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The CAARMS criteria require the occurrence of at least 1 fully (positive) psychotic symptom (variably assessed on the hallucination scale, unusual thought content/suspiciousness scale, suspiciousness, or conceptual disorganization scale) several times a week for more than 1 week. The SIPS criteria require the presence of at least 1 fully (positive) psychotic symptom (unusual thought content, suspiciousness, grandiosity, perceptual abnormalities, or disorganized communication) several times per week for at least 1 month, or at least 1 fully psychotic symptom for at least 1 day, if this symptom is seriously disorganizing or dangerous. Both the CAARMS and the SIPS transition criteria are weighted toward positive psychotic symptoms. As a result, HR subjects who develop severe negative symptoms or functional impairments (but not severe positive symptoms) can still be categorized as not having made a transition.

REFERENCES


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<table>
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<tr>
<th>Basic Symptoms (BS)(1)</th>
<th>Genetic Risk and Deterioration syndrome (GRD)</th>
<th>Brief (limited) intermittent psychotic episode (BLIP)</th>
<th>Attenuated psychotic symptoms (APS)</th>
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<tbody>
<tr>
<td>CAARMS</td>
<td>Family history of psychosis OR an individual with schizotypal personality disorder AND drop in functioning OR sustained low functioning (2)</td>
<td>Transient psychotic symptoms: symptoms in the subscales of unusual thought content, non-bizarre ideas, perceptual abnormalities, disorganized speech; duration of the episode &lt; 1 week; spontaneous remission; symptoms occurred within the last 12 months; AND drop in functioning OR sustained low functioning (2)</td>
<td>Subthreshold attenuated positive symptoms: e.g. ideas of reference, 'magical' thinking, perceptual disturbance, paranoid ideation, odd thinking and speech; held with either subthreshold frequency or subthreshold intensity; present for more than 1 week within the last 12 months AND AND drop in functioning OR sustained low functioning (2)</td>
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<td>SIPS/SOPS</td>
<td>First-degree relative with a psychotic disorder OR an individual with schizotypal personality disorder AND a significant decrease in functioning (3) in the past month compared to one year ago</td>
<td>Transient psychotic symptoms: symptoms in the realm of delusions, hallucinations, disorganization; onset in past 3 months; frequency: at least 1 hour/day at min. average frequency of 4 day/week over a one month period or symptoms are seriously disorganizing/dangerous</td>
<td>Subthreshold attenuated positive symptoms: e.g. unusual ideas, paranoia/suspiciousness, grandiosity, perceptual disturbance, conceptual disorganization; without psychotic level conviction; onset or worsening in the past year; frequency: at least once per week in the past month</td>
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<td>SPI-A</td>
<td>Cognitive-perceptive basic symptoms (COPER): at least 1 of 10 basic symptoms with a score of at least 3 within the last 3 months and first occurrence at least one year ago irrespective of earlier frequency or persistence AND/OR cognitive disturbances (COGDIS): at least 2 of 9 basic symptoms with a score of at least 3 within the last 3 months</td>
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<td>BSIP</td>
<td>Genetic risk and further risk factors according to screening instrument (e.g. social decline, unspecific prodromes) <strong>Mixed category (unspecific)</strong> Combination and minimal amount of certain unspecific risk factors/prodromes</td>
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<td></td>
<td>Psychotic symptoms above decompensation limit (hallucinations ≥4, delusion ≥5, unusual thought content ≥5, suspiciousness ≥5) each time less than 1 week with spontaneous remission</td>
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<tr>
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<td>Psychotic symptoms below decompensation limit (hallucinations ≤3, unusual thought content ≤4, suspiciousness ≤4)* at least several times per week, in total persisting for &gt;1 week</td>
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(1) Basic symptoms include COPER (cognitive-perceptive basic symptoms) and COGDIS (cognitive disturbances); (2) A significant drop in functioning is defined as SOFAS score at least 30% below previous level of functioning, occurred within last year and sustained for at least one month; a sustained low functioning is defined as SOFAS score ≤50 for the past 12 months or longer; (3) A significant decrease is defined as 30% drop in Global Assessment of Functioning Scale score from premorbid baseline; CAARMS, Comprehensive Assessment of the At Risk Mental State; SIPS (and SOPS), Structured Interview for Prodromal Syndromes (Scale of Prodromal Symptoms); SPI-A, Schizophrenia proneness instrument - Adult version; SPI-CY, Schizophrenia proneness instrument - Child & Youth version; BSIP, Basel Screening Instrument for Psychosis. Adapted from Cannon et al


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