

At Risk Mental States: Understanding & Support

Authored by
mohammed loot

November 15, 2025

RECOMMENDED CITATION

mohammed loot (2025). *At Risk Mental States: Understanding & Support*. Psychepedia.
Retrieved from <https://psychepedia.arabpsychology.com/?p=23036>

Introduction and Conceptual Definition of At Risk Mental States

The concept of **At Risk Mental States** (ARMS), often interchangeably referred to in clinical literature as Ultra High Risk (UHR), represents a critical paradigm shift in psychiatric care, moving the focus from treating established illness to implementing rigorous preventative strategies. ARMS identifies individuals who exhibit subthreshold symptoms or specific risk factors that place them at a significantly elevated statistical probability of developing a full-threshold psychotic disorder, most commonly schizophrenia, within a defined short-term timeframe, typically one to three years. This classification is fundamentally rooted in the recognition of a **psychosis prodrome**--a period preceding the onset of frank psychosis characterized by subtle, often fluctuating changes in thought, perception, mood, and functioning. The identification of this state is paramount because early intervention during the prodromal phase offers the greatest potential to mitigate severity, delay onset, or potentially prevent the transition to chronic psychosis altogether, thereby dramatically improving long-term functional and social outcomes for vulnerable individuals.

The clinical utility of the ARMS framework lies in its ability to delineate a target population that is neither fully healthy nor fully ill, necessitating specialized diagnostic and therapeutic approaches distinct from those applied to established psychotic disorders. These states are defined by symptoms that are often attenuated, meaning they are present but do not meet the intensity or duration criteria necessary for a formal diagnosis of schizophrenia or schizophreniform disorder according to standardized diagnostic manuals like the DSM or ICD. Moreover, individuals in an ARMS often experience significant distress and functional impairment, even in the absence of frank psychosis. This impairment may manifest as declines in academic or occupational performance, withdrawal from social activities, or difficulties maintaining personal hygiene, reflecting the insidious progression of the underlying pathological process before the emergence of definitive psychotic symptoms. Therefore, the ARMS designation serves not merely as a prediction tool, but as a justification for offering immediate, specialized clinical care aimed at symptom reduction and functional preservation.

Understanding ARMS requires acknowledging the inherent heterogeneity within this population. Not every individual identified as being at risk will ultimately transition to psychosis; indeed, the majority will not. This statistical reality--often cited as a transition rate of approximately 20% to 35% within the first two years of identification--presents significant clinical and ethical challenges, specifically concerning the potential for over-diagnosis and unnecessary treatment exposure. Consequently, research and clinical efforts have intensely focused on refining diagnostic criteria and developing predictive models that can distinguish those who are truly on a trajectory toward psychosis from those whose symptoms may remit spontaneously or stabilize without progression. This differentiation is crucial for ensuring that high-intensity interventions, particularly pharmacological ones, are reserved for the subset of ARMS individuals deemed to be at the highest immediate risk, while providing less intensive, psychosocial support to the broader ARMS

cohort.

Historical Context and Evolution of Terminology

The conceptual foundation of ARMS is built upon decades of research into the precursors of schizophrenia, dating back to early 20th-century observations of premorbid personality traits and subtle behavioral changes noted by pioneering psychiatrists. However, the modern, operationalized concept gained significant traction in the late 1980s and 1990s, driven by the realization that treating psychosis only after its full manifestation often led to poorer long-term outcomes due to the neurotoxic effects associated with the duration of untreated psychosis (DUP). Early research efforts sought to identify individuals exhibiting schizotypal personality traits or those with a strong family history of psychosis, classifying them under broad terms like "schizotypy" or "genetic high risk." While these groups demonstrated an increased likelihood of developing the disorder, the predictive power was often low, making them unsuitable targets for focused clinical trials aimed at prevention.

A pivotal moment in the evolution of the ARMS concept was the development of standardized, reliable instruments specifically designed to capture subthreshold psychotic phenomena. The most influential of these was the Comprehensive Assessment of At-Risk Mental States (CAARMS), developed primarily by researchers in Melbourne, Australia. The CAARMS criteria provided an empirically validated method for identifying individuals based on the presence, severity, and frequency of attenuated positive symptoms (APS) and other high-risk indicators. This shift marked a move away from relying solely on non-specific risk factors (like genetics) toward focusing on the actual, albeit mild, clinical expression of the emerging disorder. This methodological rigor allowed for the establishment of specialized, dedicated research and clinical programs, often referred to as specialized prodromal or UHR clinics, which became the standard bearers for early intervention research globally.

The nomenclature itself has undergone refinement. The term **Ultra High Risk (UHR)** gained widespread acceptance as it emphasized the relative elevation of risk compared to the general population or even compared to other clinical groups (like those with depression or anxiety). More recently, the term **At Risk Mental States (ARMS)** has been increasingly favored, particularly in European contexts, as it is perceived to be less alarming to patients and families while maintaining the clinical specificity required for intervention. Although the terms UHR and ARMS are often used interchangeably in contemporary literature, they both refer to the specific set of criteria that characterize the prodromal phase of psychosis. This evolution reflects an ongoing effort not only to improve diagnostic accuracy but also to enhance the ethical and patient-centered aspects of identifying and labeling young people who are experiencing significant psychological distress.

Clinical Criteria and Subtypes (The P3 Criteria)

The identification of ARMS relies primarily on a specific set of operationalized diagnostic criteria, commonly referred to as the P3 criteria, which categorize individuals into three distinct risk groups. These criteria are essential for standardizing research populations and guiding clinical decision-making. The most significant and clinically relevant subtype is the presence of **Attenuated Psychotic Symptoms (APS)**. Individuals meeting the APS criteria exhibit symptoms typical of psychosis--such as unusual thought content, suspiciousness, perceptual disturbances (e.g., fleeting auditory or visual experiences), or disorganized communication--but these symptoms occur at a subthreshold intensity, frequency, or duration. For instance, a person might experience brief moments of believing others are talking about them, but this belief is not held with delusional conviction and is often recognized by the individual as possibly being untrue or strange. Crucially, these symptoms must have begun or worsened significantly within the past year and must cause observable functional decline or distress.

The second key subtype is **Brief Limited Intermittent Psychotic Symptoms (BLIPS)**. This category captures individuals who experience symptoms that meet the full threshold criteria for psychosis (e.g., clear delusions or hallucinations) but are transient and resolve spontaneously within a very short duration, typically less than one week, and do not lead to a formal diagnosis of a psychotic disorder due to their ephemeral nature. Although BLIPS episodes are defined as full-threshold, their intermittence and rapid remission distinguish them from established psychotic disorders. The BLIPS group is often considered to represent the highest immediate risk for transition to sustained psychosis, as the brain has already demonstrated the capacity to generate full-blown psychotic phenomena. The presence of even a single BLIPS episode mandates careful and urgent clinical monitoring and intervention due to the inherent volatility of the symptom presentation.

The final subtype, often termed **Genetic Risk and Functional Decline (GRFD)** or Trait and State Risk, identifies individuals who do not currently exhibit attenuated or brief psychotic symptoms but possess a significant underlying vulnerability combined with recent, marked functional deterioration. This vulnerability is typically defined by having a first-degree relative (e.g., parent, sibling) with a psychotic disorder, or by possessing a schizotypal personality disorder. The functional decline must be recent and substantial, usually defined as a drop of at least 30% on a standardized measure of functioning (like the Global Assessment of Functioning, GAF, or the Social and Occupational Functioning Assessment Scale, SOFAS) sustained over a specified period. The GRFD criteria emphasize that risk is not solely determined by the presence of attenuated symptoms, but also by the interaction between underlying genetic liability and observable deterioration in daily life performance, suggesting that the underlying pathology is beginning to overwhelm compensatory mechanisms.

Neurobiological and Cognitive Markers

Research into the neurobiological underpinnings of ARMS has revealed consistent structural and functional brain abnormalities that largely mirror, albeit in a milder form, those found in established schizophrenia, solidifying the idea that ARMS represents an early, potentially reversible stage of the illness. Neuroimaging studies frequently demonstrate subtle but progressive changes in brain morphology, particularly involving the prefrontal cortex and the medial temporal lobe structures, such as the hippocampus. Longitudinal magnetic resonance imaging (MRI) studies have specifically noted accelerated gray matter reduction in frontal and temporal regions among those ARMS individuals who subsequently transition to psychosis, suggesting a period of intense, possibly pathological, synaptic pruning or neuroinflammation during the prodromal phase. These structural changes are hypothesized to contribute directly to the observed cognitive deficits and the emergence of positive symptoms through disruption of critical neural networks, especially those involved in executive function and emotional regulation.

Cognitive impairment is recognized as a core feature of ARMS and serves as a powerful predictor of transition risk, often preceding the emergence of attenuated positive symptoms. Deficits are commonly observed across multiple domains, including verbal learning and memory, attention, processing speed, and executive functions (e.g., planning and problem-solving). These cognitive markers are particularly salient because they are linked to long-term functional outcome, independent of positive symptom severity. For an individual in an ARMS, these impairments translate directly into difficulties in school or work environments, contributing significantly to the functional decline that is a mandatory component of the ARMS criteria. Identifying and targeting these specific cognitive deficits through specialized training programs (such as cognitive remediation therapy) has become a major focus of early intervention research, aiming to strengthen cognitive reserve and potentially buffer against the progression of the disorder.

Furthermore, neurochemical models point toward dysregulation of the **dopaminergic system** as a key mechanism underlying ARMS. While full-blown psychosis is associated with excessive dopamine activity in the striatum, ARMS individuals often show subtle alterations in dopamine synthesis capacity and release patterns. Additionally, there is growing evidence implicating the N-methyl-D-aspartate (NMDA) receptor hypofunction hypothesis, suggesting that imbalances in glutamate neurotransmission contribute to the perceptual and cognitive disturbances characteristic of the prodrome. Beyond neurotransmitters, studies have highlighted the role of chronic stress and HPA axis (hypothalamic-pituitary-adrenal axis) dysregulation, leading to elevated cortisol levels. This heightened biological stress response may interact with genetic vulnerability to exacerbate neuroinflammation and accelerate the pathological processes leading to psychosis, positioning stress management and the reduction of biological load as vital components of therapeutic intervention.

Risk Factors and Predictors of Transition

While the ARMS criteria define the initial target population, the central challenge remains predicting which individuals within this group will transition to full-blown psychosis, typically defined as a sustained psychotic episode lasting longer than one week. The average transition rate across major international studies hovers around 20% to 35% over two years, necessitating the identification of specific, high-leverage risk factors that can refine individual prediction. Demographic and clinical predictors consistently associated with higher transition rates include a younger age of onset of ARMS symptoms, greater severity and persistence of attenuated positive symptoms, and the presence of severe functional deterioration at baseline. The brief, intermittent nature of BLIPS symptoms also places individuals at a higher risk compared to those presenting solely with APS or GRFD criteria.

Several specific clinical features serve as potent predictors. The emergence of **negative symptoms**, such as avolition (lack of motivation), alogia (poverty of speech), and affective flattening, is particularly concerning in the ARMS population. While negative symptoms are often non-specific early on, their increasing severity and stability over time strongly correlate with a higher risk of transition and poorer long-term functional outcomes, reflecting potentially greater underlying neuropathology. Furthermore, the co-occurrence of substance use disorders, particularly heavy cannabis use, is a well-established risk factor, hypothesized to interact synergistically with biological vulnerabilities to precipitate the onset of psychosis. The presence of comorbid depressive or anxiety disorders, while common, must be carefully assessed, as they can complicate the clinical picture and potentially mask or exacerbate the underlying prodromal symptoms.

Beyond intrinsic clinical factors, environmental and psychosocial stressors play a crucial, often accelerating role in the transition process. Exposure to early life trauma, including physical or sexual abuse, is strongly linked to increased risk. Furthermore, recent research has highlighted the impact of social factors, such as social isolation, low socioeconomic status, and migration status, particularly when coupled with experiences of discrimination or perceived social defeat. These environmental factors are thought to act as chronic stressors, compounding the biological vulnerability and potentially triggering the neurobiological changes associated with transition. Therefore, a comprehensive risk assessment in an ARMS setting must integrate a careful evaluation of these environmental stressors alongside the clinical and biological markers to create a holistic predictive profile and guide targeted psychosocial interventions.

Clinical Management and Early Intervention Strategies

The core principle guiding the clinical management of ARMS is **early intervention**, aiming to reduce current distress, restore functioning, and prevent or delay the transition to psychosis. Due

to the relatively low transition rate and the potential side effects of pharmacological agents, the initial and primary treatment modality for most ARMS individuals is psychosocial intervention. Cognitive Behavioral Therapy for Psychosis (CBTp) is the cornerstone of this approach, focusing on helping individuals identify and manage their distressing attenuated symptoms, reducing suspicion and paranoia, and challenging dysfunctional beliefs about the self and others. Psychoeducation, provided to both the individual and their family, is equally critical, offering a framework for understanding the symptoms, reducing anxiety, and promoting treatment adherence and relapse prevention strategies.

In conjunction with individual therapy, supportive interventions aimed at restoring functional capacity are essential. These may include specific programs targeting vocational or academic skills, social skills training, and family support and therapy. The goal is not merely symptom reduction but the active reversal of the functional decline associated with the prodrome. Research has also explored nutritional and lifestyle interventions; for instance, supplementation with Omega-3 fatty acids has shown modest efficacy in some studies, posited to work by reducing inflammation and improving neuronal membrane fluidity. These non-pharmacological approaches are favored because they carry minimal risk and address the holistic needs of the young person experiencing significant life disruption.

Pharmacological intervention in ARMS remains a complex and controversial area. While low-dose antipsychotic medication has been shown in some trials to reduce the risk of transition, the widespread use of these drugs is debated due to concerns over significant potential side effects, including metabolic syndrome, weight gain, and sedation, especially when administered to individuals who may never develop psychosis. Current consensus generally favors reserving antipsychotic medication for ARMS individuals deemed to be at the highest immediate risk (e.g., those with persistent BLIPS or severe, worsening APS coupled with rapid functional decline) and only after a thorough trial of psychosocial interventions has proven insufficient. An alternative approach involves the use of antidepressants for co-occurring mood or anxiety symptoms, or the use of specific cognitive enhancers, always prioritizing the lowest effective dose and maintaining vigilant monitoring for adverse effects.

Ethical and Practical Considerations

The identification and treatment of ARMS populations raise profound ethical and practical dilemmas that must be carefully navigated by clinicians and researchers. The primary ethical concern revolves around the issue of **false positives**. Given that the majority of ARMS individuals will not transition to psychosis, labeling a young person as "at risk" carries the potential for significant psychological distress, stigmatization, and the imposition of unnecessary medical interventions. This labeling can fundamentally alter a person's self-perception, impact educational and career choices, and influence how they are treated by family and social networks. Therefore,

clinicians must exercise extreme caution in communicating the risk profile, ensuring that the language used is balanced, hopeful, and clearly explains that ARMS denotes increased risk, not inevitable outcome.

The issue of informed consent is also heightened in the ARMS context. Because the target population often includes adolescents and young adults who may be experiencing cognitive difficulties or high levels of anxiety, ensuring truly informed consent for complex interventions, especially those involving psychotropic medication, requires careful and repetitive education. Clinicians have an ethical obligation to clearly articulate the known risks and benefits of both treatment (including side effects) and non-treatment (including the risk of transition). Furthermore, there is the practical challenge of **over-medicalization**. The enthusiasm for prevention must be tempered by the imperative to avoid pathologizing normal adolescent distress or non-specific mental health symptoms. This requires robust training for clinicians in specialized ARMS clinics to accurately distinguish between transient, normative distress and clinically significant prodromal symptoms.

From a practical standpoint, the delivery of high-quality ARMS care is resource-intensive. Specialized ARMS clinics require multidisciplinary teams, including psychiatrists, psychologists, social workers, and occupational therapists, trained in complex risk assessment and specialized psychosocial therapies (like CBTp). Ensuring equitable access to these specialized services is challenging, often resulting in disparities where individuals in rural or underserved areas miss the critical window for intervention. Future efforts must focus on developing scalable, cost-effective models for ARMS identification and intervention, potentially leveraging digital mental health technologies, to ensure that the benefits of early intervention are accessible to all vulnerable populations, regardless of geographic location or socioeconomic status.