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## Modern Methods for Diagnosing Bipolar Disorder

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### ABSTRACT

**Research objective:** the aim of this article is to study modern methods for diagnosing bipolar disorder, analyze their advantages and limitations, and identify prospects for their implementation in clinical practice.

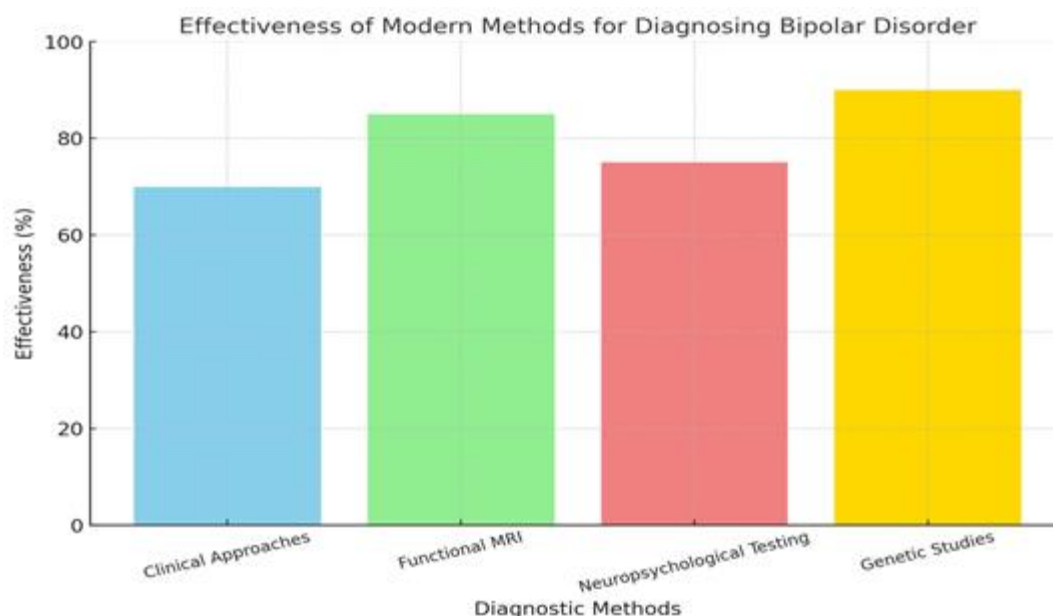
**Relevance:** bipolar disorder (BD) is one of the most common mental illnesses, affecting millions of people worldwide. The lack of timely and accurate diagnosis can lead to serious consequences, including suicidal attempts, reduced quality of life, and prolonged social maladaptation of patients. According to statistics, about 2–3% of the population suffers from BD, but the diagnosis is often significantly delayed. This underscores the importance of studying modern diagnostic methods to improve their accessibility and efficiency.

**KEYWORDS:** bipolar disorder, diagnostics, neuroimaging, genetic studies, standardized diagnostic criteria.

### Introduction

Bipolar disorder (BD) is a complex mental illness with a hereditary component. Such patients are often treated in psychiatric and psychological clinics. However, due to symptom overlap with other disorders like depression, anxiety disorders, and schizophrenia, accurate diagnosis can be challenging. Modern diagnostic methods integrate clinical and instrumental approaches, improving diagnostic precision and reducing underdiagnosis and overdiagnosis. Advanced technologies, such as functional MRI, neuropsychological testing, and genetic studies, provide insights into the biological mechanisms of the disorder. According to the World Health Organization (WHO), the prevalence of BD is about 1–3% of the population, affecting men and women equally. However, patients with BD may receive treatment for depression for years

without adequate therapy for controlling mania and hypomania.



**Pic. 2. Diagnostic Methods**

### Modern Diagnostic Methods

#### 1. Clinical Approaches

Standardized diagnostic criteria, such as DSM-5, play a crucial role in improving diagnostic accuracy. These include an analysis of medical history, patient complaints, and monitoring mood fluctuations.

2. Instrumental Methods  
Functional MRI: Identifies specific brain activity patterns characteristic of BD.  
Neuropsychological Testing: Assesses cognitive functions impaired in BD.  
Genetic Studies: Determine hereditary predisposition to the disorder.

3. Neuroimaging Technologies  
Techniques like PET and MRI provide precise data on structural and functional brain changes in BD patients.

Modern methods for diagnosing bipolar disorder offer new opportunities to improve psychiatric care. They enable:

- ✓ enhanced diagnostic accuracy;
- ✓ reduced cases of underdiagnosis and overdiagnosis;
- ✓ development of personalized treatment approaches for patients.

Further research is essential to integrate these methods into routine clinical practice. Special attention should be given to advancing genetic research and refining neuroimaging

### Conclusion and Recommendations

Modern methods for diagnosing bipolar disorder offer new opportunities to improve psychiatric care. Their application helps to increase diagnostic accuracy, reduce cases of underdiagnosis and overdiagnosis, and create personalized treatment approaches for patients. These advancements are crucial for improving the quality of life for people with BD, preventing prolonged periods of incorrect treatment, and improving long-term outcomes. Further research is essential, particularly in the fields of genetics and neuroimaging, to effectively integrate these methods into routine clinical practice. The use of advanced technologies, such as functional MRI and genetic testing, as well as standardized diagnostic criteria like DSM-5, enables more accurate and timely diagnosis, which is critical for proper treatment and improving patients' overall condition.

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