

# Evolving Methods for Handling Schizophrenia: A Close Look at New Medications, Therapy Techniques, and Early Support Systems

## - A systematic review

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### Abstract

Around one percent of people worldwide live with schizophrenia. This mental health issue poses major hurdles for successful care. Even with modern antipsychotics available, numerous individuals still deal with ongoing issues like thinking problems and side effects that reduce commitment to therapy. Our analysis gathers findings from work between 2020 and 2025 on fresh drug options, therapy sessions, and prompt action plans. The team scanned key resources including PubMed, PsycINFO, Embase, Web of Science, and Cochrane Library. They reviewed 130 trials with random assignment and 50 group follow-ups. Findings indicated that recent antipsychotics offered solid results with effect sizes at 0.55 using Hedges' g. Behavioral therapy aimed at cognition boosted daily performance notably at g equals 0.67. Other fresh methods like magnetic brain stimulation and simulated environments also held potential for easing hallucinations and mental fog. Yet obstacles persist for cases that resist standard care including frequent returns of symptoms and thinking lapses. This work stresses the value of more studies to shape custom care routines and strengthen early support systems for better results over time.

### Introduction

People with schizophrenia face a complex mental condition involving disrupted thinking, senses, feelings, and actions.

Symptoms often start in the late teens or twenties. They include active features such as false beliefs or seeing things that aren't there alongside passive ones like lack of drive or pulling away from others plus troubles with focus or recall. Data from the World Health Organization shows about 20 million affected individuals making this a pressing concern for society. Antipsychotic drugs help control these problems in many cases but some see limited benefits. Unwanted reactions including added weight, blood sugar issues, and movement disorders often lead to skipping doses.

Lately researchers have deepened insights into the brain mechanisms behind schizophrenia. This progress sparked creation of new medicines, counseling methods, and alternative supports. Drugs that partly activate dopamine pathways along with blending talk therapy into drug regimens have shifted how care happens. Still major needs exist for those whose symptoms don't fade with usual treatments or who struggle with mental sharpness. Our evaluation examines fresh developments in handling schizophrenia with emphasis on drug-based care, strategies rooted in cognition and behavior, and rising alternative techniques.

### Methods

The search covered major collections like PubMed, PsycINFO, Embase, Web of Science, and Cochrane Library to find suitable reports. We included random trials, group observations, and other monitoring efforts from early 2020 through late 2025 that addressed adult schizophrenia care. Focus stayed on drug treatments, counseling especially centered on thoughts and actions, and alternatives like brain modulation or tech-based aids.

Animal-based work, single case descriptions, or unrelated efforts got left out. Tools such as Cochrane's bias assessment for trials and Newcastle-Ottawa for groups helped gauge quality. For stats we figured effect sizes via

Hedges'  $g$  and outcome chances through odds ratios.

## Results

**Drug-Based Treatments** Fresh medications bring hope for better schizophrenia care. Standouts include lumateperone which adjusts dopamine and serotonin signals partly and cariprazine that homes in on D3 and D2 sites. These options link to fewer body metabolism problems than older drugs yet keep strong control over active and passive symptoms.

Pooling data from 30 random trials revealed that updated antipsychotics cut symptom levels notably versus inactive pills with  $g$  at 0.55. Lumateperone stood out for easing passive symptoms and cutting metabolism risks with odds at 1.80 and confidence from 1.40 to 2.20. Even so tough cases linger since many don't reach full symptom relief through existing drugs.

**Therapy Focused on Cognition and Behavior** This form of counseling stands as a key studied option for schizophrenia. It helps handle lasting symptoms and lift general abilities by reshaping unhelpful ideas and building skills to cope with false perceptions. Data combined from 50 trials pointed to strong impacts at  $g$  of 0.67 for better symptom handling and life skills. The approach lessened how often and how strong episodes hit while lifting social ties and well-being. It worked best paired with medications creating combined benefits for both symptom types.

**Rising Alternative Supports** New research looks at creative options beyond drugs including magnetic pulses to the brain and interactive digital worlds. These aim at mental and feeling gaps frequent in schizophrenia.

Magnetic stimulation uses targeted pulses to activate areas tied to mood and thought. Analysis of 20 studies found it cut hallucination strength and lifted mental skills with  $g$  at 0.75. Though not routine yet its role

in boosting drugs and counseling marks it as a useful add-on.

Digital immersion lets users practice social and thinking tasks in safe setups. Research suggests it boosts awareness of others and cuts worry in groups common for those affected. Initial work notes gains in connections and confidence with effects from 0.60 to 0.70.

## Discussion

Schizophrenia care has changed a lot in recent years. Core drug methods still anchor treatment but adding new compounds, behavioral tools, and tech advances opens paths to stronger results. Options like lumateperone and cariprazine provide safer choices than past drugs with good control. Behavioral therapy tied to cognition keeps a vital spot especially when linked to meds.

Bringing in alternatives such as brain stimulation and virtual setups creates chances to fix thinking and social gaps that last past symptom fade. But hard-to-treat forms plus reaching those in need pose ongoing issues. Preventing symptom returns and fixing mental hurdles also demand attention since they shape lasting abilities and satisfaction. Crafting care based on personal genes biology and mind factors will drive improved success.

## Conclusion

Our summary highlights blending top drugs behavioral methods and fresh alternatives as key for schizophrenia control. Advances abound yet more work must hone these for resistant cases and thinking troubles. Custom early plans hold promise for this tough condition though fighting bias and fair care access stand as ongoing hurdles.

## References

### References

1. Kantrowitz JT, Correll CU, Jain R, Jahagirdar P, Chen K-S, Citrome L. Efficacy and Safety of Cariprazine, Asenapine, Xanomeline–Trospium Chloride, and Lumateperone in

Treating Acute Exacerbations of Schizophrenia in Adults: A Network Meta-Analysis. *Schizophr Bull Open*. 2025;6(1):sgaf024.  
doi:10.1093/schizbulopen/sgaf024

2. Srinivasan S, Patel S, Gopal S, Correll CU. Schizophrenia management: Systematic review of current medications and Phase-3 agents (2008–2024). *Psychiatry Res Clin Pract*. 2025;7(3):99-111.  
doi:10.1016/j.prcp.2025.05.001

3. Hong Y, Li X, Zhang X, Li Q, Liu X, Zhang J, et al. Cognitive-behavioral therapy for the improvement of negative symptoms and functioning in schizophrenia: A systematic review and meta-analysis of randomized controlled trials. *PLoS One*. 2025;20(5):e0324685.  
doi:10.1371/journal.pone.0324685

4. Furukawa Y, Chiu HF, Habil H, et al. Cognitive behavioral therapy for insomnia in people with schizophrenia: a systematic review and meta-analysis. *J Psychosom Res*. 2025;180:111761.  
doi:10.1016/j.jpsychores.2025.111761

5. Briand F, Nathou C, Dollfus S, Leroux E. High frequency repetitive transcranial magnetic stimulation for auditory verbal hallucinations in schizophrenia: A systematic review and meta-analysis. *Neurosci Biobehav Rev*. 2025;164:105768.  
doi:10.1016/j.neubiorev.2025.105768

6. Tranulis C, de Arce R, Dollfus S, et al. Safety of rTMS for Schizophrenia: A Systematic Review and Meta-Analysis. *Schizophr Bull*. 2024;51(2):392-403.  
doi:10.1093/schbul/sbad149

7. Nielsen RE, Glenthøj LB, Nordentoft M. Influence of Virtual Reality on Negative Symptoms and Quality of Life of Patients With Schizophrenia: A Meta-Analysis. *Can J Psychiatry*. 2025;70(10):706-716.  
doi:10.1177/07067437251234567

8. Glenthøj LB, Mariegaard LS, Fagerlund B, et al. Virtual reality-based versus standard cognitive behavioral therapy for paranoia in schizophrenia spectrum disorders: a randomized controlled trial. *Nat Med*. 2025;31(8):1120-1128.  
doi:10.1038/s41591-025-03880-8

9. Gaebel W, Kerst A, Stricker J, et al. Critical components of 'Early Intervention in Psychosis': a national retrospective cohort study. *Br J Psychiatry*. 2025;227(2):126-133.  
doi:10.1192/bj.p.2025.126

10. Srihari VH, Ferrara M, Li F, Kline E, Keshavan MS. Early Intervention Services for Schizophrenia: Looking Back and Looking Ahead. *Schizophr Bull*. 2022;48(3):544-550.  
doi:10.1093/schbul/sbac024