Understanding Drug-Induced Psychosis

AUTHOR

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This presentation will be exploring the question of does a family history of psychosis increase the risk for an individual that struggles with addiction to experience drug induced psychosis?

REFERENCES

LINK

01. Problem and Significance

The primary concern of psychosis is the individuals safety. Psychosis is a mental state in which the affected person is out of touch with reality. Due to this psychological disconnect, it can lead to the affected person doing dangerous activities that could potentially harm themselves or others. The populations this concerns revolves around individuals struggling with addiction and those with a family history of psychosis. The consequences include the development of chronic psychotic disorders and long- lasting cognitive problems.

03. Interventions recommended in the literature + effectiveness/gaps

Across the included studies, early intervention combining medication, psychological therapies, and addiction programs was shown to be effective in helping individuals with drug-induced psychosis return to reality (Lam et al., 2025). Aggressive treatment upon admission, followed by continued care and follow-up, resulted in medication adherence rates of 50% at two months and 41.5% at twelve months, with self-reported adherence slightly higher at 73.3% and 68.8%, respectively. Effectiveness was limited by small sample sizes, reliance on self-reported data, and fluctuating measures such as the ANT scale.

Nursing interventions can support adherence and recovery through protocol-driven care, patient education on addiction and its risks, therapeutic communication, and monitoring of prescription use. Additional strategies include pharmacy tracking and screening for drug abuse and family history of psychosis in emergency departments, which may help reduce hospital readmissions and improve long-term outcomes.

04. Implications for nursing/patient care

1. Patient Education: Provide information on the risks of substance use, importance of medication adherence, and coping strategies for psychotic symptoms.
2. Protocol-Driven Care: Follow hospital detox and treatment protocols to ensure safe withdrawal and symptom management.
3. Therapeutic Communication: Use supportive, nonjudgmental communication to build trust and encourage engagement in treatment.
4. Follow-Up Coordination: Assist with scheduling outpatient visits, addiction programs, and prescription refills after discharge.
5. Screening and Risk Assessment: Identify patients with a family history of psychosis or ongoing substance use to tailor interventions early.

Metrics to Track:

1. Medication Adherence Rate: Percentage of patients taking prescribed medication correctly, using pharmacy refill data or self-reports.
2. Readmission Rate: Number of patients readmitted within 30 days of discharge to evaluate effectiveness of interventions and continuity of care.

02. Synthesis of the Research

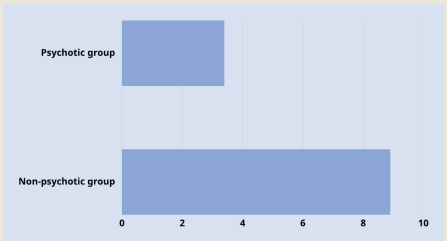
The key findings of each study

The First Study: Lower Folate Levels in Methamphetamine-Induced Psychosis (Hadizadeh et al., 2020)

Key Results Summary: Design: Cross-sectional study comparing serum folate levels across three groups:

1. Methamphetamine users with psychosis
2. Methamphetamine users without psychosis
3. Controls

- Sample: 40 individuals with methamphetamine use disorder.
- Findings:
- Serum folate levels were significantly lower in methamphetamine users who had psychosis.
- For each 1-unit increase in folate, the odds of psychosis decreased by 27%.
- Age of first use and duration of methamphetamine use did not correlate with risk of psychosis.
- Implications: Low folate may play a role in vulnerability to methamphetamine-induced psychosis, suggesting a potential biological risk factor.
- Strength: Identifies a physiological marker (folate level) associated with psychosis risk.
- Limitation: Family psychiatric history was not included, which could influence psychosis risk.



Risk Factor	Relative Risk (RR)	95% Confidence Interval (CI)	Notes
Methamphetamine use (past week)	2.3	1.3 – 4.3	Independent effect
Family history of psychosis	2.4	0.9 – 7.0	Independent effect
Both meth use + family history	4	2.0 – 7.9	Joint risk (no significant interaction)
Interaction effect (meth use × family history)	0.7	0.3 – 1.8	Not significant; small excess risk 0.20 (CI: −1.63 to 2.03)

Study 2: Family History of Psychosis & Risk of Methamphetamine-Related Psychotic Symptoms (McKetin et al., 2023)

Key Results Summary: Design:*Longitudinal pan*el study assessing whether family history of psychosis increases vulnerability to methamphetamine-related psychosis.

- Sample: 148 participants without baseline psychotic disorders.
- Findings:
  - Methamphetamine use independently increased risk of psychotic symptoms, regardless of family history.
  - Family history of psychosis, even without drug use, nearly doubled the risk of psychotic symptoms.
  - When both factors were present, risk was high, but family history did not amplify the drug-related risk—each factor contributed independently, not interactively.
- Implications: Methamphetamine use and genetic vulnerability both elevate psychosis risk, but they appear to operate as separate risk pathways rather than enhancing one another.
- Strength: Directly addresses the interaction between drug use and family history.
- Limitation: Focuses on symptoms rather than confirmed diagnoses of psychosis.

Study 3: Primary Psychosis With Comorbid Drug Abuse vs. Drug-Induced Psychosis (Mauri et al., 2017)

- Design: Longitudinal follow-up study (approx. 5 years) comparing clinical evolution of:
  a. Primary psychosis with comorbid drug abuse
  b. Drug-induced psychosis
- Sample: 48 psychiatric inpatients with psychosis plus substance abuse.
- Findings:
  - At baseline, patients with primary psychosis + drug abuse had higher unusual thought content scores (BPRS) than drug-induced psychosis patients.
  - After 5-year follow-up, the groups no longer differed in BPRS scores.
  - Diagnosis stability was similar across both groups.
  - No evidence that drug-induced psychosis patients improved more after stopping substances.
  - Individuals with primary psychosis had an earlier age of onset, especially those later diagnosed with schizophrenia.
- Implications: Distinguishing drug-induced psychosis from primary psychosis can be difficult—over time, the clinical trajectories converge.
- Strengths: Shows long-term diagnostic evolution; highlights overlap between drug-induced and primary psychosis.
- Limitation: Lack of family history data, which may influence both onset and outcome.

