

Bi-Weekly Follow-Up of Adult Patients Diagnosed With Schizophrenia to Increase Treatment Adherence: A Scoping Review

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Purpose

This scoping review will evaluate existing literature to assess if a multimodal approach, such as increased patient follow-ups in addition to scheduled, current-practice long-acting injectable (LAI) treatment and management, may increase treatment adherence (TA) in adult patients diagnosed with schizophrenia.

Background

Schizophrenia, for most patients, is a significant, chronic, disabling, and distressing psychiatric disorder (Marcus et al., 2015). In addition to it affecting a patient's psychological state, it also affects their behavior, cognition, mood, and speech in various ways.

Symptoms of Schizophrenia

- Auditory hallucinations
- Visual hallucinations
- Disorganized behaviors
- Depersonalization
- Aggression
- Paranoia
- Delusions
- Cognitive and thought disorders

Potential Results of Unmanaged Symptoms

- Medication non-adherence
- Relapse
- Increased length of stay (LOS)
- Re-hospitalization
- Job loss
- Interpersonal conflicts
- Arrest
- Incarceration
- Suicidal ideations
- Homicidal ideations

Pharmacological Treatments for Schizophrenia

- Pharmacological treatments can be effective at reducing the rates of relapse.
- Medication nonadherence is one of the most common causes of hospitalization, relapse, and re-hospitalization.
- Continuous treatment is essential to ensure the achievement of long-lasting therapeutic outcomes.
- Pharmacological treatments for schizophrenia include but are not limited to:

- Oral Antipsychotics (OAPs)
 - Nonadherence to OAPs occurs in around 42% of patients (Aykut, 2019).
- Long-Acting Injectable (LAI) Antipsychotics
 - Are a more effective treatment option than OAPs
 - Provide continuous, long-term therapy
 - Improve treatment adherence (TA)

Non-Medication Factors That Affect Treatment Adherence (TA)

- Patient health beliefs
- Low health literacy
- Poorly developed therapeutic alliances
- Cognitive and mood dysfunction

How to Address Non-Medication Factors That Affect Treatment Adherence (TA)

- Multimodal treatment approach combining:
 - Initial patient visits
 - Medications
 - Patient follow-up appointments

Methods

Journal Articles

Eligibility Criteria for Inclusion

- Focus on specific medication(s) and/or multimodal treatment(s)
- Demonstrate the effectiveness of medication intervention(s) and health outcomes

Required Design Characteristics

- English language
- Peer-reviewed
- Published within the last ten years
- Accessible free, full-text versions
- Human subjects

Information Sources

Databases searched from 2013 to 2022:

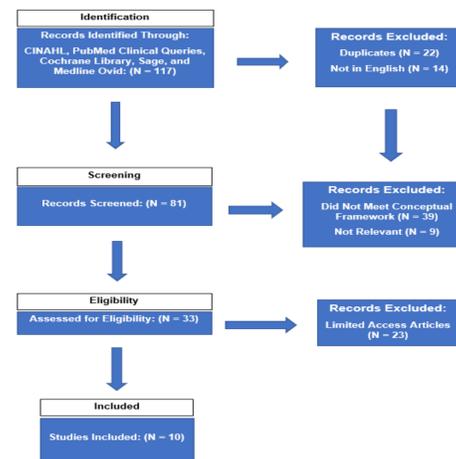
- The University of Tennessee Health Science Center (UTHSC) online library database
- The Cumulated Index to Nursing and Allied Health Literature (CINAHL)
- PubMed Clinical Queries
- Cochrane Library
- SAGE
- Medline Ovid

Keywords: schizophrenia, outcome, follow-up, and medication adherence

Selection of Sources of Evidence

- 117 articles met the search criteria
- The Ohio State University College of Nursing rapid critical appraisal (RCA) tools were used for article screening.
- Quantitative and observational studies were selected to provide alternative perspectives on:
 - Medication interventions
 - Health outcomes
- Excluded Articles:
 - Duplicates
 - Not in English
 - Did not fit the conceptual framework
 - Irrelevant
 - Limited access
- After screening and applying exclusion criteria, ten articles were selected for use.

Selection of Sources of Evidence



Data Items

- The ten selected articles were searched for the following data:
 - Treatment group
 - Age
 - Gender
 - Race
 - Employment status
 - Relationship status
 - LAI (name of medication)
 - Length of time on LAI
 - Frequency of LAI
 - Positive and Negative Syndrome Scale (PANSS) score
 - Symptom Onset in Schizophrenia (SOS) score
 - Total missed appointments
 - Total assessment visits

Results

Results of Individual Sources of Evidence

	1	2	3	4	5	6	7	8	9	10
Level I: Systematic Review or Meta-Analysis	x	x								
Level II: Randomized Controlled Trial			x	x	x	x				
Level III: Controlled Trial Without Randomization							x			
Level IV: Case-Control or Cohort Study								x	x	x
Level V: Systematic Review of Qualitative or Descriptive Studies										
Level VI: Qualitative or Descriptive Study, CPG, Literature Review, QI, or EBP Project										
Level VII: Expert Opinion										

Synthesis of Results Table

	1	2	3	4	5	6	7	8	9	10
LOS	↓ ^b	↓ ^b	↓	↓ ^b	↓ ^b	↓	↓	↓	↓	↓
PANSS	↓	↓	↓	↓	NE	↓	↓ ^b	↓	NE	NE
TA	↑	↑	↑ ^b	↑	↑ ^b	↑	↑	↑	↑	↑

↑=Increased, ↓=Decreased, ^a=Statistically Significant Findings, ^b=Statistical Significance Not Reported,

LOS = Length of Stay, PANSS = Positive and Negative Symptoms of Schizophrenia, NE=Not Examined, TA = Treatment Adherence

1 = Kishimoto et al. (2012); 2 = Kishimoto et al. (2018); 3 = Leatherman et al. (2014); 4 = Schreiner et al. (2015); 5 = Alphas et al. (2015); 6 = Correll et al. (2016); 7 = Aykut (2019); 8 = Marcus et al. (2015); 9 = Diaz-Fernandez et al. (2019); 10 = Chan et al. (2021)

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Most of the articles that mentioned medication adherence did not address any follow-ups as an additional intervention. All the articles stated statistical significance. All studies reported positive findings in two areas of interest except for three studies. All the articles demonstrated increased treatment adherence with LAIs compared to OAPs, along with a decreased length of stay. Seven of the articles reported less severe or frequent symptoms of schizophrenia. This scoping review demonstrated that the use of LAIs for the treatment of schizophrenia led to better health outcomes, improved treatment adherence, decreased hospitalizations and length of stays, improved PANSS scores, and supports further investigation of this topic.

Implications for Practice

- Long-acting injectable antipsychotics are generally superior to oral antipsychotics in the treatment of adult patients diagnosed with schizophrenia.
- There is not enough literature or evidence to determine the effectiveness of bi-weekly follow-ups in combination with long-acting injectable antipsychotic treatments to increase treatment adherence in adults diagnosed with schizophrenia.
- The implementation of bi-weekly follow-ups for schizophrenic patients still holds promise, but more studies are required to evaluate the effectiveness of long-acting injectable treatments and accompanying interventions to increase treatment adherence.
- Future research should be focused on conducting head-to-head long-acting injectable antipsychotic studies to evaluate the comparative effectiveness of long-acting injectable treatments and accompanying interventions in order to assess treatment outcomes.
- It is hopeful that this scoping review will help direct future research, identify strengths and weaknesses of current evidence-based practices, and increase treatment adherence in adult patients diagnosed with schizophrenia.

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