



# COMPARING ANTIPSYCHOTIC DRUG COMPLIANCE IN ADULT PATIENTS WITH SCHIZOPHRENIA SPECTRUM DISORDERS RECEIVING LONG ACTING INJECTABLE VERSUS ORAL MEDICATIONS



BY CAROLINE LUKANO, DNP, PMHNP-BC, FNP-BC, STACEY JONES, DNP, FNP-BC, KERRI OUTLAW, DNP, PMHNP-BC, AND BARBARA MILLER, PHD, ACNS-BC

## INTRODUCTION

- ❖ Barriers to medication compliance are multifaceted and in part due to the pressure to take medications daily.
- ❖ Research consistently demonstrates low compliance to antipsychotic medications among patients with schizophrenia spectrum disorder (Velligan et al., 2017).
- ❖ Several studies note long-acting injectable (LAI) to be most effective when compared to oral administration in promoting patient compliance (Green et al., 2017; Park et al., 2018).
- ❖ Medication compliance is an ongoing challenge for mental health professionals and patients.
- ❖ Despite, the use of LAI to increase compliance to medications, both the clinicians and patients continue to struggle with this issue.

## SIGNIFICANCE OF THE PROBLEM

- ❖ Noncompliance and partial compliance leads to illness progression, decompensation, and relapse of symptoms
- ❖ Associated with early mortality
- ❖ Frequent use of psychiatric services-Emergency rooms and psychiatric hospitals
- ❖ Decline in social interactions, inability to hold a job and enjoy life to the fullest (Phan 2016; Velligan et al., 2017).

## RESEARCH PURPOSE



To determine whether LAI or oral medications were more effective in achieving compliance among patients with schizophrenia spectrum disorders.

## DESIGN

A retrospective chart review design from January 2016 to December 2019 was used to compare LAI versus oral antipsychotic to determine the most effective formulation to promote patient medication compliance.

## SAMPLE

Sample included 284 patients (142 on oral and 142 on LAI) who met inclusion criteria

## RESULTS

*Independent Samples t-test of Refill times based on Medication Route (N = 284)*

	M	SD
<b>On time refill:</b>		
Oral	34.87	15.441
LAI	48.68	22.243
<b>Late refill:</b>		
Oral	4.05	4.938
LAI	2.55	5.759
<b>Missed:</b>		
Oral	9.08	13.216
LAI	5.46	9.231

*On-time*  $-(t_{(282)} = -6.074, p < .01)$ , *late*  $(t_{(282)} = 2.356, p < .05)$ , and *missed*  $(t_{(282)} = 2.676, p < .05)$

Patients on LAI demonstrated increased compliance for on-time doses when compared to patients who received oral medications.

There was a significant positive relationship between on-time refill for oral and LAI with the number of years with the diagnosis and age.

A significant negative relationship was present between number of years with diagnosis, missed doses, and the age of the patient.

## CONCLUSION



The results demonstrated patients on LAIs had greater medication compliance than those on oral antipsychotic medications

## IMPLICATION FOR PRACTICE



- ❖ Improve medication compliance for better clinical outcomes
- ❖ Identify specific barriers for medication compliance
- ❖ Reduce relapse of symptoms which leads to hospitalizations
- ❖ Encourage collaboration between provider, family/caregiver, and patient to increase medication compliance

## ACKNOWLEDGEMENT

This study was completed as a partial fulfillment of the requirements for the degree of Doctor of Nursing Practice in the Graduate School of Troy University. The author would like to acknowledge the dedication and support of my professors Dr. Stacey Jones, Dr. Kerri Outlaw, and Dr. Barbara Miller for their substantial contributions and guidance along my journey.



## BACKGROUND OF THE PROBLEM

- ❖ 3.8 prescriptions written annually and about one in five is actually filled with 50% not taken as prescribed (Neiman et al., 2017)
- ❖ 33%–69% of hospital admissions are due to noncompliance (Grover et al., 2017)
- ❖ 20 -60% patients drop-out from treatment
- ❖ 40% patients self-discontinue their antipsychotic medication (Grover et al., 2017)
- ❖ Antipsychotic noncompliance rates of 26.5% and 58.8% (Salzamann-Erickson & Sjodin, 2018)

## LITERATURE REVIEW

Ertem and Duman (2019) noted poor medication compliance and poor insight to mental illness frequently co-occurred together.

The review of the cohort studies in Kishimoto et al. (2018) noted LAI to be superior to oral antipsychotic medications and a better choice for patients with known or expected compliance problems.

Greene et al. (2017) conducted a randomized control study and noted LAI to be superior to oral antipsychotic medications in improving compliance to antipsychotic medications.

In a systematic review conducted by Garcia et al. (2016) the authors noted younger patients with schizophrenia were associated with noncompliance to antipsychotic medication.