Improving Antipsychotic Adherence Rates in an Outpatient Psychiatric Setting: A Quality Improvement Project

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DPNV 767-PROJECT III

TOURO UNIVERSITY, NEVADA

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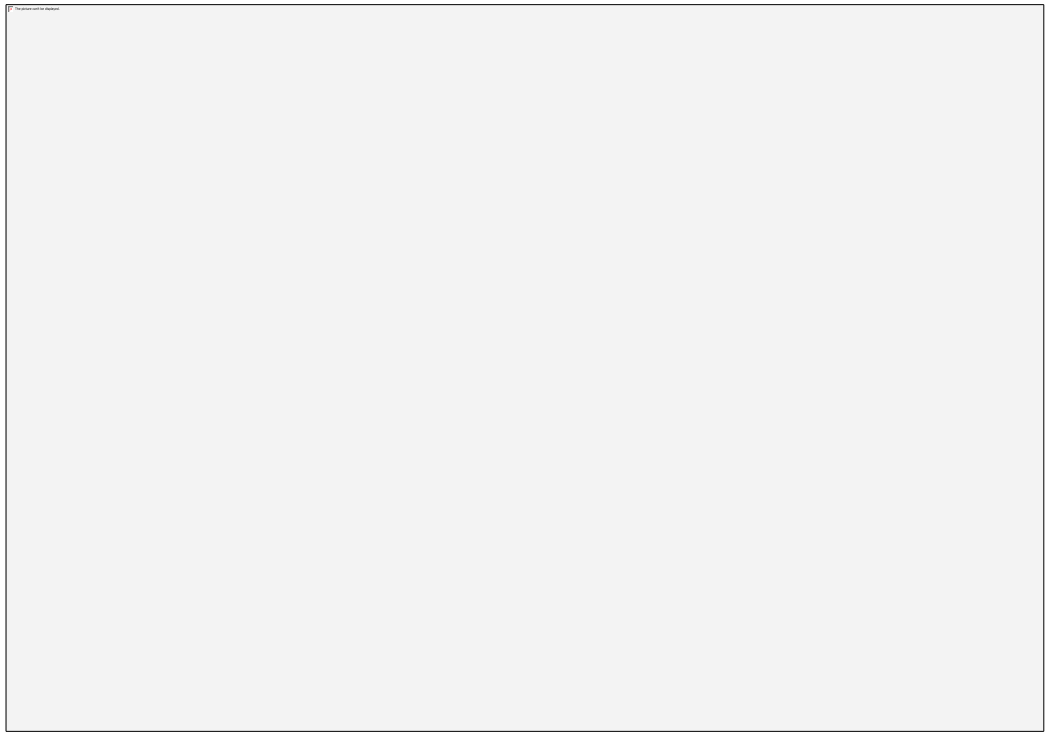
This project is in partial fulfillment of the degree requirements for the Doctor of Nursing Practice at Touro University Nevada



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Introduction

- Nonadherence to antipsychotic treatment is prevalent in clinical settings, which often leads to worsening of symptoms and reduces quality of life.
- This quality improvement project aims to evaluate antipsychotic adherence in patients prescribed antipsychotics by implementing evidence-based guidelines and protocols by mental health providers.
- This DNP project demonstrated an improvement in the rates of adherence to antipsychotics in patients by implementing evidence-based guidelines and protocol.
- This quality improvement project contributed significantly to the mental health providers' knowledge and increased rate of adherence to antipsychotics in patients prescribed antipsychotics.

Background

- Nonadherence to antipsychotics is the failure to adhere to a mental health provider's treatment recommendation, which negatively impacts the patient's quality of life and health outcome.
- Existing data indicate that 30 % to 40 % of patients with the first episode of psychosis become non-adherent to medication within six months of treatment, leading to a higher rate of relapse, hospitalization, and increased healthcare costs (Steger et al.2018).
- Studies show several factors have been identified that influence nonadherence to antipsychotic therapy, which includes the severity of the patient's symptoms, self-medication to alleviate symptoms, sociodemographic status, lack of insights about the disease process, and antipsychotic side effects (Abdullah-Koolmee et al., 2021).
- Nonadherence to antipsychotic treatment was also associated with substance use, suicidal attempts, violence, and decompensation of patients with psychotic disorders (Caqueo-Urízar et al., 2020).

Project Aim

- The aim of this DNP Project is :
  To implement a quality improvement project to improve
  Antipsychotic adherence in adult patients prescribed
  Antipsychotic in an outpatient psychiatric Setting

Project Problem

This quality improvement project is the lack of evidence-based guidelines to assess adherence to antipsychotic therapy in adult patients with mental health disorders.

Project Question

Will the implementation of a comprehensive antipsychotic medication adherence protocol improve the adherence rates in adult patient ages 18 to 50 years by 5% within four weeks of the project implementation phase?

Project Objectives

- Develop and implement evidence-based guidelines outlining the process for providers when prescribing antipsychotics to encourage adherence.
- Provide an education seminar for the multi-disciplinary team on the EBP guidelines, assessing adherence, and the cause of nonadherence.
- Increase rates of (antipsychotic adherence in the adult population) by 5 % within a 4-week implementation frame.
- Determine provider compliance with the use of the implemented toolkit.

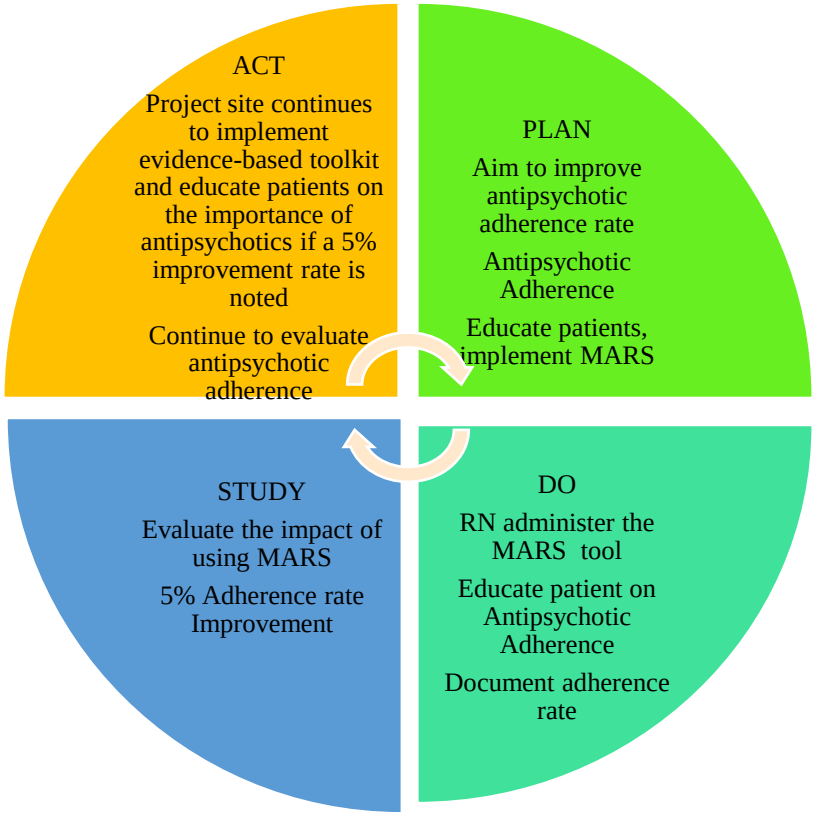
Literature Review

- Implementation of evidence-based guidelines to improve antipsychotic adherence rates in an outpatient psychiatric setting .

- Impact of the Problem: Treatment with antipsychotics continues to be the gold standard for patients experiencing psychosis like Schizophrenia. Nonadherence to antipsychotic treatment has remained a challenge in the clinical setting, affecting patient symptom improvement, rehospitalization, and increased healthcare costs .

- Addressing the problem with current evidence identified factors influencing nonadherence in patients on antipsychotics include severity of the patient's symptoms, self-medication to alleviate symptoms sociodemographic status, lack of insights about the disease process, and antipsychotic side effects.

THEORETICAL MODEL
PDSA CYCLE



PROJECT DESIGN

- The design for this project employed a quality improvement design

- The design is focused on implementing evidence-based guidelines that outlines the process for providers and nurses to follow to improve adherence rate to antipsychotics in adult patients.

- The primary goal of this QI project is to retain the evidence-based guidelines to improve antipsychotic adherence in adult patients.

PROJECT SETTING

The setting is an outpatient psychiatric clinic located in Katy, Texas. The clinic is a private practice specializing in offering mental health care to all age groups starting with children from age four years old, adolescents, and adults from age eighteen years and above. The clinic offers psychiatric and mental health treatment to about ten to twelve patients daily, averaging two hundred patients in one month. All types of medical healthcare insurance are accepted at the project site, including Medicaid and Medicare.

PROJECT PLAN

- The DNP Project was implemented during a four-week time frame
- The phases of implementation include:
- Implementation of the Intervention
- Data collection
- Evaluation of Project results

IMPLEMENTATION

- **Week 1**:Project lead Met with project Mentor. Project lead collaborated with project Site CEO. Power point presentation by project lead .Copy of MARS shared with the CMA, RN and NP .Collection of Pre MARS assessment for 30 new patients

- **Week 2**: Nursing Staff and CMA continues administering MARS and report score to the Nurse practitioner to follow up by educating patient about adherence to antipsychotic

- **Week 3**: Project lead **f**ollow up with Nursing staff and CMA about medication adherence rating scale administration.

- **Week 4**:Project lead collected data for Pre Mars administration and Post Mars administration. Data was stored while maintaining confidentiality, and analysis of data. Project lead collaborated with PM to discuss project results, analyze and evaluate the data and determine how it relates to the project topic.

DATA COLLECTION

- Quality Improvement Project
- No Institutional Review Board (IRB) needed
- Project site CEO approved project to be implemented at project site.
- Educational presentation about medication adherence tool kit
- Pre MARS and Post MARS assessment
- Chart Audit and data collection over 4 weeks period
- No personal self identification data collected
- Data exported into IBM SPSS statistics

RESULTS

- The results of the pre-MARS and post-MARS assessment were compared using a paired T test and the increase in the rate of adherence showed a mean score of 2.56 for post MARS assessment.

- There was a statistically significant increase in the rate of adherence to antipsychotics from the pre-MARS scores (M =5.16 SD =2.58) to post-MARS score (M =2.56 SD =1.61), t (24) =5.46, p <0.001 (two-tailed). The mean decrease in MARS score was 2.60, with a 95% confidence interval ranging from 1.62 to 3.58.

- The result of the provider's compliance to the evidence-based toolkit also shows 83.3 % which significantly increase the rate of adherence to antipsychotics in patients.

Pre and Post Pre-Post MARS assessment paired sample statistics

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PRE MARS	5.16	25	2.577	.515
	POST MARS	2.56	25	1.609	.322

Pre and post Pre-Post MARS assessment paired sample correlations

Paired Samples Correlations					
				Significance	
		N	Correlation	One-Sided p	Two-Sided p
Pair 1	PRE MARS & POST MARS	25	.430	.016	.032

Paired Samples Test

		Paired Differences					t	df	Significance	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			One-Sided p	Two-Sided p
Pair 1	PRE MARS - POST MARS	2.600	2.380	.476	1.617	3.583	5.461	24	<.001	<.001

Pre and Post Pre-Post MARS assessment Paired Sample Test and paired Differences

Pre and Post Pre-Post MARS assessment paired Sample Effect sizes

Paired Samples Effect Sizes						
			Standardizer[a]	Point Estimate	95% Confidence Interval	
					Lower	Upper
Pair 1	PRE MARS - POST MARS	Cohen's d	2.380	1.092	.587	1.583
		Hedges' correction	2.458	1.058	.568	1.533

Provider's Adherence to Antipsychotic Protocol

Case Processing Summary			
		N	%
Cases	Valid	25	83.3
	Excluded[a]	5	16.7
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability of Instruct Used

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.557	.601	2

EVALUATION

- Evaluation entails an assessment of provider's compliance with the evidence-based tool kit as it affects the rate of antipsychotic adherence in patients
- The change in the rate of adherence to antipsychotics comparing the pre-MARS and post-MARS assessment was analyzed using a paired t-test analysis.
- A simple statistics analysis to determine the provider's compliance with the evidence-based toolkit.
- The chart audit was completed, the data was compiled into an Excel spreadsheet and the analysis was done with the SPSS software

FUTURE DISSEMINATION

- The project will be prepared as a power point presentation and presented to the academic staff and students of Touro University on February 9th,2024 via Zoom.
- The project will also be submitted to DNP repository .
- The DNP candidate will also present the results of the QI project to the stakeholders and provider at the project site.
- An abstract will be submitted to the Touro University for the TUN research day presentation.
- The project will also be disseminated through an abstract submission for publication to the Journal of Psychiatric and Mental Health Nursing .

CONCLUSION

- The objectives for the QI project were met as project results showed an increase in the rate of adherence to antipsychotics with a mean score of 2.56 for post-MARS assessment as compared to the mean score of 5.16 for pre-MARS assessment.
- The lower the total score of a MARS assessment, the greater the medication adherence (Wei et al., 2021).
- The provider's compliance with the evidence-based toolkit was 83.3%.
- The results of this QI project help to show a possible relationship between the psychoeducation of patients about antipsychotic adherence to patient's adherence to antipsychotics.
- Educating providers on antipsychotic adherence helped in enhancing favorable outcomes for the patients.
- Project sustainability will be achieved through the CEO's and other stakeholders' support through the integrating the evidence-based protocol and the MARS assessment
- The project site will also provide in-service training to newly hired providers about the antipsychotic adherence protocol

Thank you Everyone

Adebisi Okieimen

ANY QUESTIONS

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