Improving Antidepressant Adherence Rates in an Outpatient Behavioral Setting: A Quality Improvement Project

TAIWO ABIOYE, PMHNP-BC

DNPV 767 – PROJECT

TOURO UNIVERSITY NEVADA

PROJECT MEMBER(S): DR. JOHNSTON, DR. D'ERRICO

JUNE 22, 2021

Acknowledgement

I want to extend my appreciation to my academic mentor Dr. Heidi Johnston; her unwavering support, guidance, patience, and commitment to my success have been overwhelming. I also show gratitude to Dr. D'errico for her guidance and direction through this journey, your support is appreciated. I would like to also show appreciation to Dr. Grimm, Dr. Carrion and Dr. Zabriskie, and Dr. Thompson for their assistance and feedbacks.

Introduction

- Depression is a mood disorder that causes persistent sadness, impairments, and affects the quality of human life and psychosocial functioning.

- The project aims to evaluate antidepressant adherence in patients with depression by implementing an evidence-based guideline and protocol by mental health providers.

- This DNP project proved to improve the adherence of patients through the implementation of an antidepressant adherence protocol.

- The quality improvement DNP project contributes significantly improved provider's knowledge about depression and increased antidepressant adherence in patients with depression.

Background

- The National Institute of Mental health reported depression as the most prevalent mental health disorder in the United States of America, with over 16 million people been clinically diagnosed with depression.

- The national recommendations for managing depression are effective management and treatment with therapeutic support, pharmacotherapy, and psychotherapy.

- Nonadherence to antidepressants is the failure to adhere to a medical provider's treatment recommendations, which has negatively impacted health care and a significant challenge to patient outcomes.

- Nonadherence to antidepressants leads to a high low quality of life, poor health outcomes, increased risks of treatment relapse, vulnerability to suicide, and increased costs to the patient and health care system.

- Studies show that 60% of nonadherence to antidepressants was higher in minority groups, and they are less likely to refill their antidepressants, and that 60% of patients discontinue antidepressants use within three months.

Project Purpose

- The purpose of this DNP project is:
  - The purpose of the DNP project was to implement a quality improvement project to improve antidepressant adherence in adult patients with depression and enhance the knowledge of the mental health providers of an outpatient behavioral setting.

PROJECT PROBLEM

This quality improvement (QI) project is the lack of evidence-based guidelines to improve antidepressant adherence in patients with depression.

Project Question

Will implementing an evidence-based guideline on antidepressant adherence improve the adherence rate in adult patients of 18 -75 years within four weeks of the project Implementation phase?

PROJECT OBJECTIVES

1. Develop and implement evidenced-based toolkit and guidelines for providers prescribing antidepressants to enhance antidepressant medication adherence.
2. Present the developed evidenced-based antidepressant guidelines to clinicians and evaluate their understanding of the guidelines and assess improved knowledge on the antidepressant protocol.
3. Educate NPs, Pas, Physicians, and nurses on evidence-based toolkit and guidelines and pre-and post-knowledge tests to evaluate education effectiveness.
4. Evaluate their understanding of the guidelines.
5. Improve early intervention rates for patients at risk for nonadherence to antidepressant medications and define the clinic's policy and roles related to care of patients with depression.
6. Show a 5% increase in antidepressant medication adherence within four weeks of implementation.

Literature Review

- Implementation of evidence-based guidelines to improve antidepressant adherence rates in an outpatient behavioral setting.
- Impact of the problem; Antidepressant nonadherence can lead to decreased quality of life and poor health outcomes for patients.
- Addressing the Problem with Current Evidence identified factors influencing nonadherence in patients on antidepressants, including stigma, fear of the medication's adverse reaction, the ineffectiveness of antidepressants, and disbelief about diagnosis and severity of depression.

TABLE 2. BARRIERS TO ANTIDEPRESSANT ADHERENCE

Care access
Concern about potential sexual dysfunction, weight gain, and other adverse effects
Fear of antidepressants
Lack of an adherence strategy
Medication cost
Misattributions about the causes of depression
Negative attitudes and a perceived stigma
Perception of low symptom severity
Perception that depression is a character flaw
Unrealistic expectations

THEORETICAL MODEL
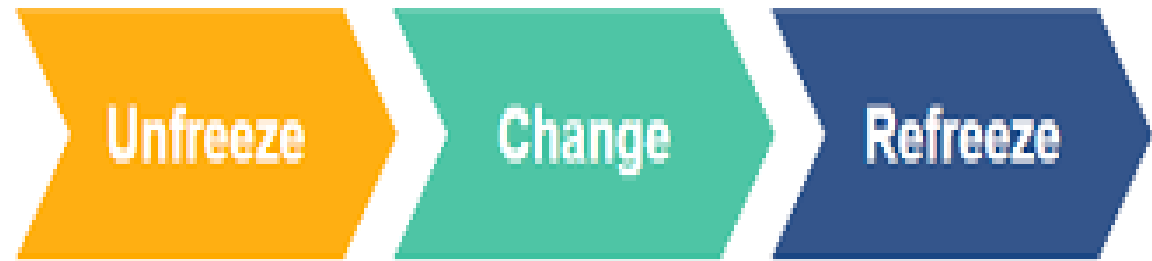
Kurt Lewin's Change Theory

Unfreeze

1. Recognize the need for change
2. Determine what needs to change
3. Encourage the replacement of old behaviors and attitudes
4. Ensure there is strong support from management
5. Manage and understand the doubts and concerns

Change

1. Plan the changes
2. Implement the changes
3. Help employees to learn new concept or points of view

Refreeze

1. Changes are reinforced and stabilized
2. Integrate changes into the normal way of doing things
3. Develop ways to sustain the change
4. Celebrate success

PROJECT DESIGN

- The design for this project utilized a quality improvement (QI) design

- The design focused on implementing best practice guidelines that outline the process for providers and nurses to follow, to improve antidepressant adherence rates in adult patients. The DNP quality improvement (QI) project's primary goal is to maintain the implementation of the best practice guideline in other to enhance adherence in patients on antidepressants.

PROJECT SETTING

The setting is an outpatient behavioral clinic located in El Paso Texas. This clinic provides medication management, psychosocial and rehabilitative programs, low energy and neurofeedback systems, and individual and family counseling to patients aged 18-75 years. The clinic serves approximately 3,000 patients and sees more than 190 patients daily, with approximately 80% Hispanics, 10% Caucasians, 5% African Americans, and 5% Middle Eastern and Asians.

PROJECT PLAN

- The DNP project was implemented during a four-week time frame.

- The implementation phase included:
  - Implementing the intervention
  - Data collection
  - Evaluating the project results

IMPLEMENTATION

Week 1: The project lead will meet with the providers, give a pretest to the medical providers, and provide education, followed by a post-test.

Week 2: Weekly retrospective chart reviews and implementation of the evidenced-based toolkit that outlines the process for providers (Nurse Practitioners, Physician Assistants, and Physicians) to follow in enhancing adherence to antidepressant adherence in adult patients at the practice site will continue. Meeting with the providers/stakeholders about updates on the project. The project lead will meet with the providers as needed every week to assess adherence to the protocol, check on the progress, and outcomes of the implementation and evaluation.

Week 3: Implementation of the evidenced-based toolkit that outlines the process for providers (Nurse Practitioners, Physician Assistants, and physicians) to follow in enhancing adherence to antidepressant adherence in adult patients at the practice site will continue. Random chart reviews after the implementation of the protocol

Week 4: Have the nurse supervisor call the patients to determine if they are still taking their medications. Final data collection and analysis of data will begin.

DATA COLLECTION

- This is a Quality improvement project.

- The QI project did not require the Institutional Review Board (IRB).

- Approval received from the CEO, Chief medical director, and stakeholders of the project site.

- Direct recruitment of population of interest and utilized in-person and zoom meetings.

- Pre and post test of provider knowledge administered electronically during the educational intervention sessions.

- Chart audit and data collection performed over a four- week period.

- No personal data collected.

- Data was exported to IBM SPSS Statistics.
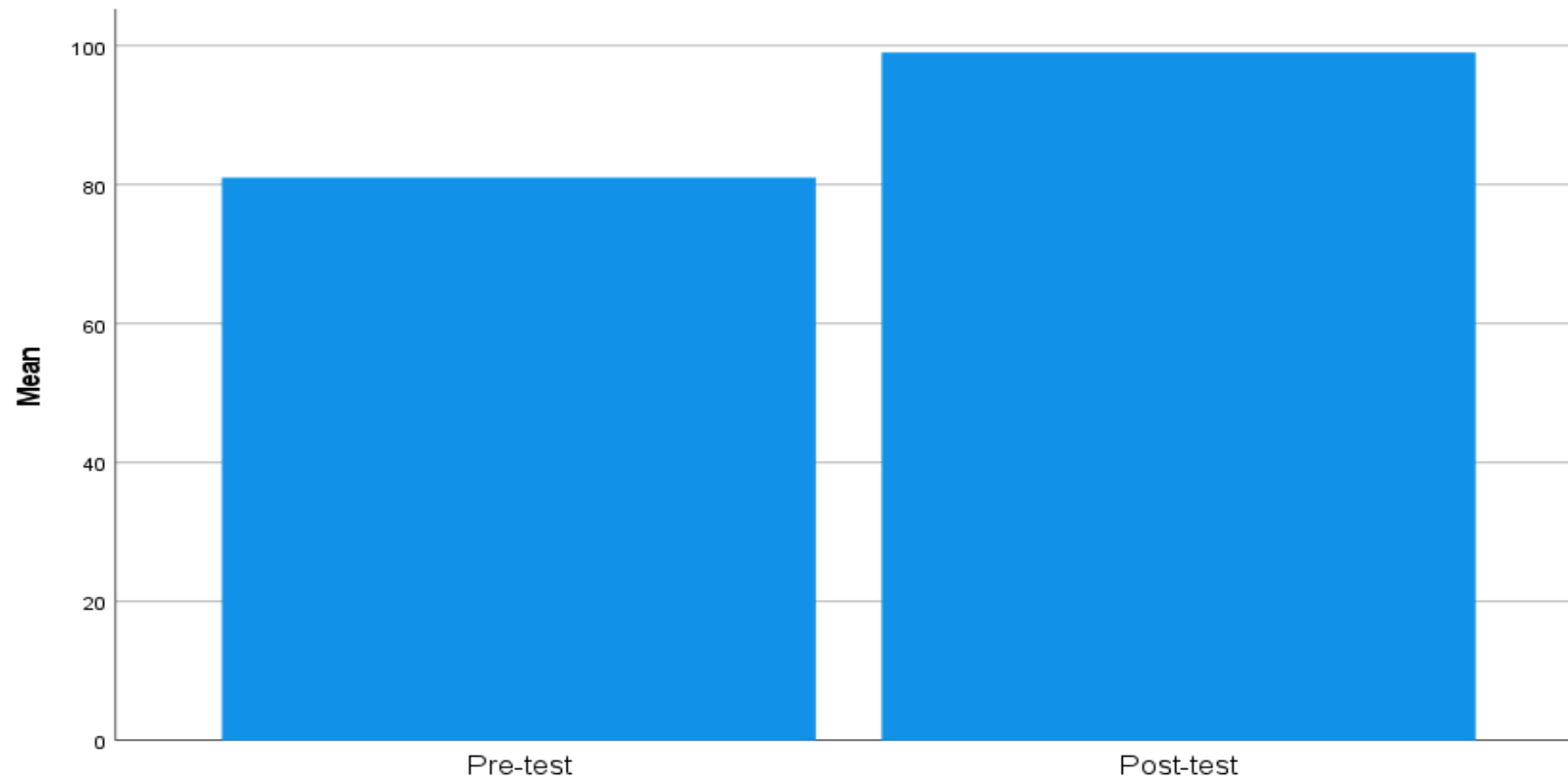
RESULTS

- The result of the pre-test and post-test were compared, and the increase in score between the pre and post-test showed a knowledge increase evidenced by a mean score of 81% versus a score of 99% on the post-test.

- Descriptively, post-test (adherence section), all providers increased their adherence to protocol with an overall rate of 77% from 0%.

- Significant differences between pretest and posttest scores for knowledge.

- Pre-test scores ranged from 60-90% and post-test scores ranged from 95-100%.

- Post-test- scores improved in comparison to the pre-intervention scores 60% to over 95%.
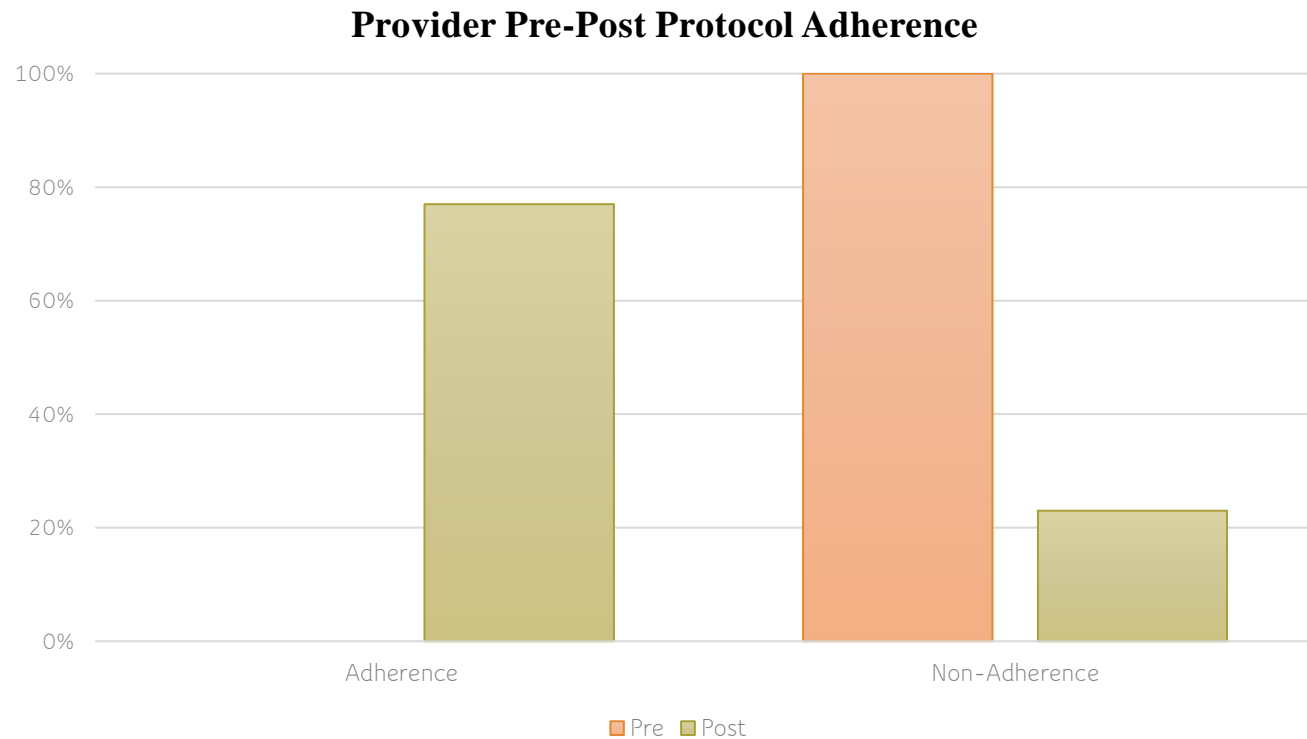
RESULTS

Provider Pre-Post Antidepressant Adherence Knowledge Test

RESULTS

Provider Pre-Post Protocol Adherence

- Descriptively, post-test (adherence section), all providers increased their adherence to protocol with an overall rate of 77% from 0%.

- Pre-phase none of the providers adhered to the protocol.

- This graph illustrates overall provider pre and post protocol adherence and non-adherence.

Table 1.
Pre and Post Pre-Post Antidepressant Adherence Knowledge Test Paired Samples Statistics

Paired Samples Statistics		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pre	81.00	6	2.000	.816
	post	99.00	6	2.000	.816

Table 2.
Pre and Post Pre-Post Antidepressant Adherence Knowledge Test Paired Samples Correlations

Paired Samples Correlations		N	Correlation	Sig.
Pair 1	pre & post	6	.250	.633

Table 3.
Pre and Post Pre-Post Antidepressant Adherence Knowledge Test Paired Samples Test

	Paired Samples Test		
	t	df	Sig. (2-tailed)
Pair 1 pre - post	-18.000	5	.000

Table 5.

Results

Table 4.

Pre and Post Pre-Post Antidepressant Adherence Knowledge Test Paired Differences

Paired Samples Test

| | | Paired Differences | | | | |
					95% Confidence Interval of the Difference	
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper
Pair 1	pre - post	-18.000	2.449	1.000	-20.571	-15.429

Table 5.

Pre and Post Pre-Post Antidepressant Adherence Knowledge Test Paired Samples Effect Sizes

			Standardizer[a]	Point Estimate	95% Confidence Interval	
					Lower	Upper
Pair 1	pre - post	Cohen's d	2.449	-7.348	-11.835	-2.909
		Hedges' correction	2.655	-6.781	-10.920	-2.684

EVALUATION
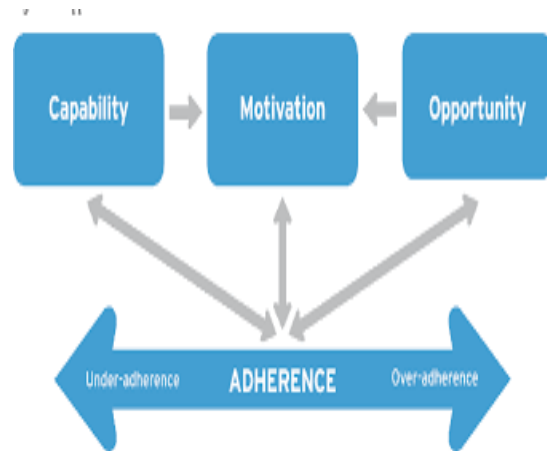
- Evaluation entailed an assessment of provider knowledge increase regarding the importance of antidepressant adherence.

- It evaluated the provider's knowledge and awareness of antidepressant adherence protocol, thereby determining an increase in the percentage of adherence in patients on antidepressants compared to pre-implementation.

- The change in adherence rates pre-and post-implementation determined was analyzed using paired t-test analysis.

- A binomial test was used to analyze the results of the pre-and post-protocol adherence by providers.

- 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 PowerPoint presentation and delivered to the academic staff and students of Touro University on June 2021 in Las Vegas, NV.

- The project will also be submitted to the DNP repository.

- The DNP candidate will the DNP QI project has presented the results of this project to the stakeholders and providers in the current healthcare organizations.

- The project lead also plans to disseminate the findings of this project to the Texas chapter of Black Nurses Rock Professional Organization.

- It is also planned to be disseminated to the DNPs of color (DOP) professional conference on July 22, 2021.

- An abstract will be submitted for presentation at the 2021 AANP Fall Conference in Hollywood, Florida, dated September 23, 2021 – September 26, 2021.

- . The project will also be disseminated through an abstract submission for publication and presentation to the Global Alliance and the International Society of Psychiatric-Mental Health Nurses (ISPN) dated March 15-20, 2022, at Redondo Beach, CA.

CONCLUSION

- Increased knowledge of the mental health providers.

- Utilization of antidepressant protocol showed improvement in adherence to antidepressants in patients with depression.

- Mental health provider's attitudes towards the protocol were improved by education.

- Utilizing the adherence protocol helped enhance favorable outcomes for the patients.

Thank You Everyone

Taiwo Abioye

ANY QUESTIONS

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