Improving Medication Adherence for Patients in a Psychiatric Out-Patient Setting Utilizing an Evidence-Based Protocol: A Quality Improvement Project

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Abstract

Medication non-adherence in psychiatric mental health patients leads to low quality of life care, shortened lives and higher health care costs. Medication non-adherence is a widespread problem globally that impacts the quality and length of life. Participants were health care providers in an out-patient psychiatric care center. An assessment tool (MARS) and a new protocol were introduced via an educational intervention. Chart audits were done to assess compliance of the protocol. An intervention included an educational seminar and evidence-based protocol introduction, and post quiz data results were analyzed using a paired samples T-test to test if there was a significant difference in pre and post scores which showed a significant statistical improvement in knowledge. The chart audits did not yield any statistically significant results. In conclusion, significant improvement in general medication adherence knowledge was seen but not the documentation of it, nor implementation of the actual protocol. Medical providers' knowledge of medication non-adherence, patient rapport building, and accurate regular medical adherence assessment can be improved using an evidence-based program as this project has shown.

Improving Medication Adherence for Patients in a Psychiatric Out-Patient Setting, Utilizing an Evidence-Based Protocol: A Quality Improvement Project

Medication non-adherence is a highly prevalent and complex problem which can lead to lack of effective quality care, relapses, hospitalizations, and safety concerns, in patients with serious mental health disruptions including bipolar, major depression, and schizophrenia, often also the most underserved population (Loots et al, 2021). Medication nonadherence begins when the client takes 50 percent of prescribed medications or less, and has been defined as a patient not taking medication for a week (Eliasson et al, 2020). Non-adherence of less than 80% of the prescribed dose is predictive of a subsequent hospitalization (Loots et al, 2021). A timely, patient-centered approach is needed to be implemented early in a patient's diagnosis, that will ensure quality, equitable healthcare, and cost efficiency (NC, 2021).

Significance

Approximately fifty percent of patients are estimated to be non-compliant with taking their medications as prescribed (Eliasson et al, 2020). Non-adherence ranges from 63% to 74% in patients with schizophrenia with a relapse rate of 78% -82%, and in patients with bipolar, non-adherence of about 50% with a 60% relapse rate (Loots et al, 2021). The project site has a significant number of patients with these mental health disruptions. Psychopharmacological medication non-adherence is 3ultifactorial and may involve socio-demographic, clinical effects, psychological or cultural factors (Deng et al, 2021; Marrero et al, 2020). It is believed that sixty percent or more of patients with mental health disorders who are non-adherent suffer from the highest risk of disability, chronic hospitalizations, escalating health care costs, and suicide (Deng et al, 2022). Patient-centered interventions utilizing the latest evidence-based approaches need to be implemented to address this failure in health care delivery that adversely affects patients,

families, staff, and the health care system (Loots et al, 2021). Medication adherence measurement methods are often imperfect estimates of actual medication ingestion by self-report, and providers report that it is challenging when the client later admits that he or she was not truthful about medication schedule compliance, not understanding the consequences (NC, 2021). This causes a meaningful disruption in the progress of their care, distress, confusion, and it impacts the providers at the health care center if the providers tend to depend upon the mentally ill client being able to be responsible, truthful, compliant, and the staff may only question the client when there are noticeable behavior changes (NC, 2021). The adverse impact of sporadic and poor medication adherence on the client, and extended costs to the health care system, shows an inadequacy or failure in the current methods and make this a high priority for the treatment center to have a protocol and pro-active plan in place to educate the providers in assessing barriers to medication adherence before a catastrophe occurs and have a toolkit of strategies to implement that are patient-centered (NC, 2021).

The nature of the current problem Is that there is no medication adherence protocol, or guidelines currently being utilized in this relatively new practice site for providers working with clients (NC, 2021). This problem has been on-going since this developing project site's inception just over a year ago. Providers need to understand the importance of medication adherence psychoeducation, adherence assessment methods, and strategies to address individual barriers as part of the treatment plan, and to include a brief but consistent assessment in their interactions and documentation along with psychoeducation (Ameel, 2019; Ghatwal, 2021). Care providers need to have current knowledge and skills to identify the many barriers to adherence, and to match the appropriate up-to-date, evidence-based interventions to support individual client's barriers to

medication adherence, prevent setbacks and relapses, to improve their quality of life, or even save their life, and keep health care costs down (Gandhi et al, 2021; NC, 2021).

Background

The project site is a new out-patient psychiatric care group established in January 2022, which offers a part-time or intensive, out-patient hospitalization program, and a variety of outpatient programs for many mental health needs across the lifespan from children to adults. The project site medical staff provide psychiatric evaluation, diagnosis, and medication management, and masters and doctoral prepared staff, including the therapists and social workers to provide individual, group, and family therapy. Some of the site's specialties include ADHD, autism, addiction, substance use disorder, anger management, anxiety, bipolar, mood disorders, eating disorders, oppositional defiance disorder, psychosis, suicidal ideation, self-harming, sexual abuse, transgender, personality disorders and more.

With a strong focus on a variety of multi-disciplinary therapies and less emphasis on psychopharmacology, addressing medication non-adherence issues can be overlooked if there has been no specialized training in the latest evidence-based practices nor protocol in place (NC, 2021). The National Council for Mental Wellbeing has created a toolkit of evidence-based practices for health facilities and emphasizes the need for specialized training of providers in this complex problem in psychiatric care which is due to a variety of factors and barriers (NC, 2021). They offer training in assessment and strategies addressing specific barriers, in a toolkit for facilities to use to develop their own protocol (NC, 2021). There are also many research reviews and evidence-based practice guidelines for reference. A protocol can be developed with a plan for provider and client psycho-education, to understand its importance, enhance the therapeutic relationship, assessment skills, and learn new tools, and strategies to help clients identify and

overcome their individual barriers to medication adherence. A compliance officer will be recommended to be appointed among the staff to ensure it continues to be addressed. As well, a health care policy, and procedure with guidelines will be developed to help guide the staff and ensure consistency moving forward in the future with this growing care center.

Project Question

For providers in an outpatient mental health setting providing care for psychiatric patients, will the implementation of evidenced-based medication adherence protocol, as compared to current practice, increase medication compliance, as evidenced by self-reporting, in a 4-week implementation timeline?

PICOT

P= Population - Providers in outpatient mental health setting.

I = Intervention - Implementation of an evidence-based medication adherence protocol

C= Comparison - Current practice.

O= Outcome - Increased medication adherence as evidenced by self-report to provider.

T= Time - 5 weeks of implementation.

Search Methods

Guided by the project question, the literature search provides validation for the recommended national guidelines, and development of a project site protocol**.** Search terms for this project included “medication + non-adherence,” or “medication +non-compliance” and “psychiatric patients + medication compliance,” and “medication + in psychiatry”, “therapist role + medication adherence,” and “ improving medication adherence in psychiatric patients” or “mentally ill,” and “evidence-based practice + medication non-adherence.” Databases from the Touro University library were used including (CINAHL) Cumulated Index to Nursing and Allied

Health Literature, Pro-Quest, Cochrane library, Psychiatry Online, PubMed, and National Guidelines.

Inclusion criteria included the English language, based in the United States, out-patients, adolescent or adult population, scholarly studies, addressing the mentally ill, attention deficit hyperactivity disorder, schizophrenia, and bipolar disorders. As well, research that further addressed factors, barriers or evidence-based solutions, were included. This helped narrow down the article results to be more relevant to this project.

Exclusion criteria limited research to be within the last five years, and excluded anything not relevant to the out-patient population or the United States population, or to medication challenges in psychiatry.

Review of Study Methods

Upon the review of the study methods in selected literature, common themes emerged that support this project. The literature included integrative reviews (Ameel et al, 2019) exploratory qualitative studies (Lin et al, 2022), retrospecifc and observational studies (Youn et al, 2022), mixed-methods comparative studies, systemic reviews (Garcia-Perez et al, 2020; Marrero et al, 2020), meta-analysis (Loots et al, 2021), interventional or clinical trials (Baskaya et al, 2022; Eliasson et al, 2020), and a clinical based improvement project (Xia et al, 2020), and a quasi-experimental study (Ghatwal et al, 2021). These methodologies support the goal of the study and are relevant to this DNP project. As well, these studies are verifiable as they follow evidence-based practices and produce the same desirable results of improving medication adherence and preventing relapses. The methodology this project will use will be an exploratory qualitative study, with observational studies and an interventional trial.

Review Synthesis

Many recent studies and evidence related to medication non-adherence were available and common patterns and key concepts emerged (Ameel et al, 2019; Deng et at, 2022; Ghatwal et al, 2021). The national guidelines' discussion of common gaps and evidence-based practice trends, unite the selected studies under a common umbrella (NC, 2021). Implementation of best practices were most often seen to be led by registered nurses in the clinical area (Ameel et al, 2019; Ghatwal et al, 2021; Kessler & Bjorklund, 2020). In new out-patient psychiatric treatment centers, such as the project site, where there is a heavier concentration of therapists such as marriage, family, child counselors, social workers, and other professionals, evidence-based practice protocols are needed to be added. The literature overwhelmingly indicates that the impact of the problem warrants specialized training and evidence-based guidelines (NC, 2021; Gault et al, 2019; Lin et al, 2022). The research literature identifies multiple factors, barriers and challenges, ineffective therapeutic communication skills, lack of regular engaging assessments, patient psychological and cultural barriers and knowledge deficits (Deng et al, 2022; NC, 2021; Marreno et al, 2020; Resnick et al, 2020). Various interventions are implemented, many utilizing similar ideas of those discussed in the National Council evidence-based practice guidelines, and some with innovative ideas (Ameel et al, 2019; Anabel et al, 2022; Garcia-Perez et al, 2020; Kizihrmak et al, 2021; NC, 2021; Resnick et al, 2020). Thus, the research findings are consistent with the challenges found at the project site, that are not currently being addressed, so implementing a protocol based on the guidelines and evidence-based interventions would make a big and positive impact on patients and their families.

Impact of the Problem

The over-arching message of the current literature is that the impact of medication non-adherence, is critical. The research clearly identifies common factors, barriers and challenges that mentally ill patients experience with medication adherence, and the need for strengthening of the health care provider-patient relationship, providing more psychoeducation, and innovative, individualized supportive approaches for an improved quality of life, prevention of relapses, rehospitalizations, and even prevent early death (Deng et al, 2022; NC, 2021). For example, the importance of side effects on bipolar and schizophrenia treated patients is essential to assess as a barrier to adherence to their prescribed medication and adjustments made (Ata et al, 2020). Whatever the patient's barriers are, engaging meaningfully with the patient, gaining their trust, is the first step, and then finding a solution together as partners in care, may be as simple a solution as adding family support, or an innovative intervention that may be explored such as a digital digestable sensor that would enhance the therapeutic relationship between provider and patient in managing serious mental illness (Anabel et al, 2022). Essentially, medication non-adherence is a huge issue that effects us all, the patient's quality of life, relapses, rehospitalizations, and contributes to escalating health care costs.

Literature Themes

Provider Education

A common thread throughout the literature was an awareness of the need for specialized education of the provider or mental health care professionals on evidence-based techniques as a first step to promote medication adherence (Baskaya et al, 2022; Gault et al, 2019; Kizihrmak et al, 2021; NC, 2021). According to research, the first thing that needs improving is the quality of the therapeutic relationship through enhancing therapeutic communication skills with deeper

listening and patient engagement, building that trusting, healing relationship and identifying their intimate personal challenges (Ghatwal et al 2021; NC, 2021). Another issue that was addressed was the need for the provider or therapist to do a regular, individualized casual checking in or assessment of medication non-adherence (Deng et al 2022; NC, 2021). A variety of provider assessment methods for medication adherence were explored throughout the literature, from pill counting, pharmacy prescription pick-up checking, self-reporting, and one study going so far as to study the use of a digestable digital medication tags (Ameel et al, 2019; Anabel et al, 2022; Lin et al 2022; Loots et al 2021). Also, there is a validated assessment tool called the Medication Application Rating Scale (MARS) with a reliability that is rated good to excellent (Terhorst et al, 2020). Some of the literature focused on identifying barriers, and evidence-based interventions or solutions to align with those specific barriers, that supports the national guidelines (Ameel et al, 2019; Baskaya et al, 2022; Deng et al, 2022; Garcia-Perez et al, 2020; Lin et al, 2022; Loots et al, 2021; NC, 2021). The guidelines recommend health care facilities appoint a Medication Compliance representative to ensure the policies and protocol are continued to be utilized by the providers or therapists to promote consistency, an increased quality of life for the patients, prevent relapses or loss of life and help keep medical costs down (NC, 2021).

Patient Education by Providers

Another recurrent theme was the need to address a patient knowledge deficit. During the health care provider's assessment of the patient, they can assess the patient's beliefs, knowledge level, and psycological factors (NC, 2021). The implementation of a brief patient-centered psychoeducation program for patients to increase adherence to medicatons, can be individualized or as a part of group psychoeducation with like patients (Ghatwal et al, 2021; Kessler et al, 2020; Kizilrmak et al, 2021). It is essential to educate, support and monitor medication adherence,

especially in newly diagnosed young adults, to help maintain a quality of life unimpeded by relapses and rehospitalizations, or potential early death (Deng et al, 2022). Psychopharmacology details can be discussed and reinforced from time to time, as patients may be forgetful or have different cognitive abilities or learning styles. Different teaching approaches should include visual, auditory and handouts (NC, 2021).

Patient Support

Another theme was the discussion of the added benefit of a support system, besides a closer therapeutic relationship with their provider, family members, or partners can provide immense help (Svendsen et al, 2021). One study reported that loneliness, social isolation or social phobia had a negative impact on medication adherence (Seki et al, 2022). Family therapy could also be offered to help support or strengthen the patient's relationship with their loved ones.

Psychological and cultural factors are important issues discussed through-out the literature which further reinforces the need for patient support (Deng et al, 2022). Examples include, the loss of hope, lack of insight, fear of stigma, unwanted side effects, and distrust of western drugs, (Deng et al, 2022; Seki et al, 2022). Patient education and family or community support are interventions that can help with psychological and cultural factors, such as resistance to medications and negative attitudes towards western medicine (Marrero et al, 2020).

National Guidelines Pertinent to the Problem

A toolkit for healthcare organizations was developed by the national council for mental wellbeing (NC, 2021). It includes health care professional education programs, a patient education program, discussion of factors, barriers, and specific evidence-based interventions. It is a complete guide aimed at health care facilities.

Best Practice Standards

The national guidelines' best practices include

- Increasing communication/engagement skills, strengthening the therapeutic/ healing relationship with the patient.
- Regular assessment for non-adherence to include verbal check-ins, texts, pill-counting, urine or serum drug tests.
- Standardized assessment tool "MARS Calculator rating scale" to assess medication non-adherence.
- Psychopharmacology education and the importance of medication compliance for patients and families.
- Family support and involvement of loved ones.
- Interventions matched with the identified barrier(s) for adherence.

(Garcia-Perez et al, 2020; Gault et al, (2021); Loots et al, 2021; NC, 2021.)

Quality Gap and Suboptimal Care

The project site has a quality gap as there are no guidelines or protocol followed to address this issue and it is currently left to the patient to self-report and to deal with any barriers, with little to no interventional support. Provider and patient therapeutic relationship needs strengthening so that patients feel comfortable honestly reporting when they mess up their medication schedule or adherence. Health care professionals need a specialized training program in medication non-adherence, relationship building, assessment techniques and evidence-based practice interventions available.A policy and protocol needs to be developed and adopted and a staff member assigned to oversee the continued implementation of the protocol.

Project Aim

The specific aim of this quality improvement project is to facilitate a quality improvement by introducing an evidence-based protocol and education for mental health practitioners to improve medication adherence in patients in an out-patient psychiatric setting.

Project Objectives

1.The first objective will be to present an education seminar to the multidisciplinary psychiatric care staff. It will be about the impact of medication non-adherence, and introduce them to current evidence-based-practice (EBP) research, and national guidelines, to facilitate patient medication adherence. This will include assessment methods, patient-provider relationship building, barriers with specific interventions, patient education, and documentation.

2. The second objective will be to introduce the facility's new evidence-based practice (EBP) protocol, or policy and procedure for prevention or management of medication non-adherence which will include a regular brief assessment by the staff therapists during their interactions, increasing and building a trusting, healing relationship, assessing for barriers, and providing the appropriate interventions.

3. Finally, the staff will document in the patient's chart the patient medication adherence assessment, education of medications or importance of compliance, and assessment of barrier and interventions..

Implementation Framework

The framework that this project will be modelled on is the Plan-Do-Study-Act (PDSA) cycle or model for improvement. The PDSA method, also called "The Deming Wheel," was created by American Dr. W. Edwards Deming at the turn of the twentieth century (BL, 2022). He was a leading mathematical physicist, and business consultant in the field of quality management (BL, 2022). Dr. Deming believed in doing the best you can and continually seeking to improve and grew up with that mindset, and applied it to everything he did, so while he was a professor teaching engineers and businessmen, he came up with a formula for helping people make improvements (Hunter, 2023). Walter Shewhart created a Shewhart Cycle in 1939 that is believed

that inspired Dewing and he improved upon it (Flinch, 2021). Dewing said that when people make a change they often follow these logical steps without thinking about it, but by putting it in writing in his format it helps people to focus on the steps (Hunter, 2023). This project is a quality improvement endeavor and therefore this framework would be most apt as a guide.

Application of Major Tenets of Implementation Framework Applied to DNP Project

A major tenet of undertaking any project, not just the DNP project, is that the first step is to plan ahead what you will need to do (AHRQ, 2020). Therefore, the Plan-Do-Study-Act framework begins with what is generally held to be true, plan first. In this project, planning logically is first and includes collaborating with the stakeholders, researching improvement ideas, appraising the research and guidelines, developing a facility protocol, considering how to collect data for evaluation, and planning the staff education seminar. The DNP prepared nurse must first plan, then research the planned subject and its keywords for the most current information to address the project question.

Plan

In this first step of the model, the aim and desired outcome of the quality improvement is clearly defined which will include the population to be improved, and the timeframe (AHRQ, 2020). Then the steps to execute the improvement are planned. This will include researching and developing ideas of how to implement the quality improvement. Specifically, in this project, there would be improvement ideas for the goal of improving medication adherence in psychiatric out-patients through implementation of an evidence-based practice protocol and training of the providers. After appraising the research and any current national guidelines, the next step in the plan would be to create a new evidence-based practice protocol, or policy and procedure for medication non-adherence to include assessment, management and documentation. To introduce

the new protocol, a staff education seminar will be planned and will include guidelines for patient education. Handouts will also be planned as a reminder guide for the staff.

Do

This is the action phase of the model where the plan is implemented and we make our observations (AHRQ, 2020). For this project that means the staff education seminar will be conducted, and the new protocol will be presented and implemented, and any questions addressed. They will be instructed that the project data will be collected through their documentation during their interactions with the patients. The DNP student will be available to help answer questions about the new protocol, to ensure the continuation of the evidence-based practice after the project is completed.

Study

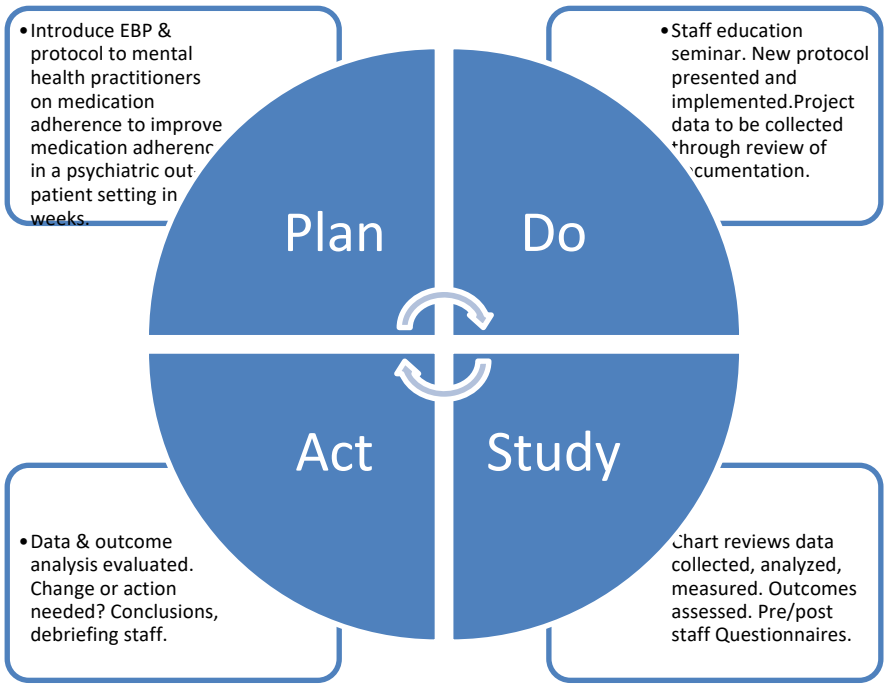
This is the phase of the model where the data is collected and analyzed. It is compared to what was predicted and summarized (Deming, 2023). In this project, data from chart documentation reviews over the five weeks will be conducted. The collected data will be analyzed and measured and outcomes assessed. Results will be collected, tabulated, and analyzed. In this DNP project this would involve chart reviews of the staff notes during their patient visits for a line or paragraph on the documented medication adherence assessment.

Act

This is the phase of the project model where the collected data analysis and outcomes are evaluated to see if any further change or action is needed based on the results for the next cycle. (AHRQ, 2020; Deming, 2023). What is the conclusion? Debriefing and discussion with the participant staff can also shed light on any further actions needed. Are reminders needed or no further intervention? Is there any action needed to improve the protocol to improve outcomes

going forward? This is a time when debriefing and survey of the staff would occur for their input.

In conclusion, the major tenets of the Plan-Do-Study-Act implementation framework follows a logical course and works well as this DNP project implementstion framework for a medication adherence quality improvement project in an out-patient treatment center.



Project Setting

The project setting is in a small suburban psychiatric out-patient treatment center, which is part of a system of clinics, located on the outskirts of the large, diverse metropolitan city, Los Angeles. It is a new, small franchise, organized by a group or board of providers. They specialize in a variety of psychiatric disorders, including addiction treatment.

Population of Interest

The direct population of interest, or the participants in the project are the multidisciplinary psychiatric clinical team and providers. This will include the medical and pharmacy staff, licensed social workers, licensed marriage, family therapists, and resident therapists, social workers, physician assistants and psychiatric nurse practitioners. It is important for everyone to learn the current evidence-based-practice guidelines on how to best assess medication adherence and prevent relapses, and what individualized tools or interventions they can use to support the cllients and be consistent throughout the facility. The inclusion criteria are staff that work regularly with clients directly. The exclusion criteria are staff that are ancillary staff such as yoga or drama instructors.

The Indirect population of Interest are the out-patient psychiatric treatment center clients who are on scheduled medications and receiving medication management care.

Stakeholders

Key stakeholders include the Medical Director and Psychiatrist, and chief owner of the franchise, who is also the Director of the Board and has the power to give permission for the project to be completed at this project site. Thus, no affiliation agreement is necessary. Other stakeholders include the Board of Directors (co-owners). They include the Clinical Director, a licensed clinical social worker (LCSW); the Operations Director, a licensed marriage and family therapist (LMFT); and the Director of Complimentary Medicine, (PharmD), a Doctor of Advanced Practice Pharmacology, and Pharmacist. I anticipate that the Clinical Director and Doctor of Pharmacology, along with the Medical Director, will play a pivitol role in the DNP project by sharing suggestions and feedback on the protocol, and by being important participants in implementing the new policy and protocol as on-site changemaker champions. The other

members of the board will be supportive, and the rest of the clinical staff will be the participants.

Intervention

The project planning team consisted of the project lead, project site Board chairman and medical director, the project mentor and the university project investigator or instructor. The timeline for this quality improvement project is five weeks. The resources required include a meeting room, participants, laptop for projecting the education session, tools such as digital and printed assessments, handouts and protocol.

Week 1

Project implementation begins. Updated baseline data on medication adherence rates among patients will be collected by random chart audit before meeting with the participants. The project lead will meet in person with the practitioner participants and conduct a pre-education questionnaire and then provide an education seminar on evidence-based practice, national guidelines on the impact of medication non-adherence, and how to improve and document medication non-adherence (National Council, 2021). A new facility protocol, or policy and procedure, will be introduced, which will require staff to 1) document regular assessment of medication adherence with an initial use of a MARS assessment tool, 2) assess for barriers, and 3) provide patient education about their medications or the importance of medication compliance. These will be the criteria that will be sought in the chart reviews. The project, and protocol implementation begins after the education is completed.

Weeks 2-4

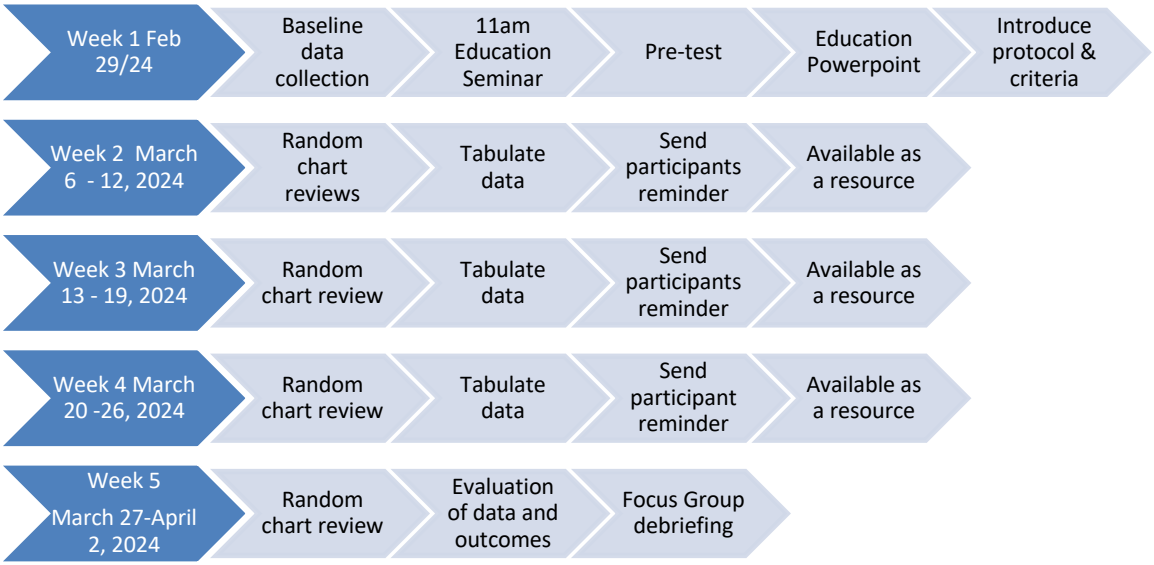
Weekly random chart reviews will be conducted to check for implementation of the evidence-based protocol, instances of medication non-adherence, change in symptom serverity, relapses or hospitalization. The project lead will meet with practitioners weekly as needed to

answer questions, check on progress and outcomes. Practitioners may receive an automated email or text reminder with their approval. Data will be tabulated and evaluated.

Week 5

The project lead will meet with the practitioners and administer the post-intervention questionnaire/assessment and then conduct a focus group discussion/survey. Qualitative insights into their experiences with the new protocol, challenges faced, suggestions for improvement, and patient satisfaction with interventions will be discussed. The evaluated data and project outcome will be shared and adjustments made as needed to sustain the protocol going forward.

Project Timeline



Tools

The tools that will be used in this project include, the Pre and Post Intervention/education Questionnaire, (Appendix "A"), which was created in collaboration with the project site medical director. The new Protocol and Policy (Appendix "B"), with attachments (Barriers and Interventions, Medication Adherence Self-Reporting tool (MARS), and Motivational Interviewing

Concepts handout) were created by the project leader with contribution and feedback from the medical director. The Chart Audit Tool, ("Appendix C"), was created by the project leader in collaboration with the project site medical director. The Educational Presentation, (Appendix "D"), was discussed with the project site medical director and created by the project leader. Finally, the tools were reviewed and approved by the project instructor and project mentor.

Methods

Study of Interventions / Data Collection

Data will be collected from pre and post-intervention questionnaires, in-person at the initial education session, and in the final debriefing and survey. Responses will be kept anonymous through the selection of a number code for each participant. As well, weekly observation and chart reviews will be conducted on five random charts per participant looking for three criteria to be documented. Participant data will also be private and coded, and data storage will be secure and coded.

Ethics / Human Subjects Protection

The participants are recruited from current staff. They will benefit from the education of the up-to-date evidence-based practice guidelines. There are no forseeable risks. The education seminar will occur during company time, with the permission of the director. There will be no separate compensation. IRB is not required for a quality improvement project and the project site does not require IRB or oversight.

Data Analysis Plan

No statistician will be used as the writer will use the International Business Machines (IBM) SPSS Statistics analysis software.

For objective 1, staff education, a paired t-test (option A) will be utilized. This will tabulate the pre and post questionnaires' coded data. There is an assumption that there will be an improvement in scores.

For objective 2, chart documentation, a Chi Square test will be done to measure compliance/non-compliance (option B). This will be gathered from the chart review, with two of the three criteria required for compliance. The three criteria include, 1) Assessment of Medication Adherence or use of MARS, 2) Assessment of barriers, and 3) Patient education: medications or compliance. Again, there is an assumption that there will be improvement and data will be kept secure.

For objective 3, qualitative analysis, the focus group survey will be qualitative and no data analysis is applicable.

Discussion and Interpretation of the Results

Pre and Post Quiz Results

Pre and Post Quiz data results were analyzed. A Paired Samples T-test was performed to test if there was a significant difference in pre and post scores. The p-value shows if there is a statistically significant difference between pre and post scores. The p-value of .009 being below the commonly used alpha level of .05, indicates that the difference in pre and post quiz scores is statistically significant. As well, the p-value suggests that there is less than a 1% probability that the observed difference in quiz scores occurred by chance alone. The t-value of -3.2 indicates that the magnitude of the difference between the pre and post quizzes relative to the variability of the scores.

The mean score on the post-quiz (44.7) is higher than the mean score on the pre-quiz (40.5) suggesting an improvement in quiz performance after the intervention or training.

The paired samples t-test results showed a mean difference of -19.60, that indicates that on average, the post-quiz scores are 19.60 points higher than the pre-quiz scores. The variability, standard deviation of differences was 13.86723 that shows the spread of the differences between the pre and post quizzes. On average, the post-quiz scores are 19.60 points higher than the pre-quiz scores and this difference is statistically significant at the 0.05 significance level with a p-value of .034 for a two-sided test.

Overall, the improvement in the post-quiz scores indicates that the teaching, intervention or learning approach was effective in enhancing knowledge or skills in the subject matter. In conclusion, based on the paired t-test results, there is a statisfically significant improvement in quiz scores from pre-test to the post-test. This suggests that the intervention or training had a positive impact on the participants' understanding and retention of the quiz subject matter.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PreQuiz	5	33	66	46.40	13.867
PostQuiz	5	66.00	66.00	66.0000	.00000
Valid N (listwise)	5				

Paired Samples T-Test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PreQuiz	46.40	5	13.867	6.202
	PostQuiz	66.0000	5	.00000	.00000

Paired Samples Correlations

		N	Correlation	Significance One-Sided p	Significance Two-Sided p
Pair 1	PreQuiz & PostQuiz	5	.	.	.

Paired Samples Test

		Paired Differences					t	df	Significance	
					95% Confidence Interval of the Difference					
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			One-Sided p	Two-Sided p
Pair 1	PreQuiz - PostQuiz	-19.60000	13.86723	6.20161	-36.81844	-2.38156	-3.160	4	.017	.034

Paired Samples Effect Sizes

			Standardizer[a]	Point Estimate	95% Confidence Interval	
					Lower	Upper
Pair 1	PreQuiz - PostQuiz	Cohen's d	13.867	-1.413	-2.667	-.092
		Hedges' correction	17.380	-1.128	-2.128	-.074

a. The denominator used in estimating the effect sizes.
Cohen's d uses the sample standard deviation of the mean difference.
Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

Chart Audit Results

Specific chart data was collected on five staff members, with five random charts per staff member reviewed weekly over a period of four weeks. They were noted as compliant or non-compliant for each incidence. The chart data was tabulated, analyzed and interpreted using a crosstabulation table and Chi-square Test to see a detailed view of compliance distribution across staff members and weeks to determine if there was a significant statistical pattern in compliance levels. The Chi-square test results showed no significant association between the observed data and the expected data. The lack of significant Chi-square test results suggested that the difference between the observed data and expected data are likely due to random variation rather the

meaningful associations or trends, and one cannot draw definitive conclusions. The Chi-square test results support the null hypothesis, suggesting that any observed differences in compliance across weeks are not statistically significant. The p-value indicates that the distribution of compliant and non- compliant charts varies significantly across staff members and/or weeks.

In summary, there is no significant association between observed data and expected data. The observed increased compliance data are likely due to random variation rather than meaningful associations or trends. (See Appendix B).

Modifications to the timeline occurred at the beginning to allow for all participants to be present.

Chi-Square Tests

Compliance		Value	df	Asymptotic Significance (2-sided)
.00	Pearson Chi-Square	.[b]		
	N of Valid Cases	1		
1.00	Pearson Chi-Square	.889[c]	4	.926
	Likelihood Ratio	1.359	4	.851
	N of Valid Cases	8		
2.00	Pearson Chi-Square	4.000[d]	3	.261
	Likelihood Ratio	4.499	3	.212
	N of Valid Cases	4		
3.00	Pearson Chi-Square	.[b]		
	N of Valid Cases	1		
4.00	Pearson Chi-Square	.[b]		
	N of Valid Cases	1		
5.00	Pearson Chi-Square	.833[e]	2	.659
	Likelihood Ratio	1.185	2	.553

	N of Valid Cases	5		
Total	Pearson Chi-Square	.000[a]	12	1.000
	Likelihood Ratio	.000	12	1.000
	N of Valid Cases	20		

a. 20 cells (100.0%) have expected count less than 5. The minimum expected count is 1.00.
b. No statistics are computed because Staff_ID and Week are constants.
c. 9 cells (100.0%) have expected count less than 5. The minimum expected count is .50.
d. 8 cells (100.0%) have expected count less than 5. The minimum expected count is .25.
e. 6 cells (100.0%) have expected count less than 5. The minimum expected count is .40.

Staff_ID * Week * Compliance Crosstabulation

Compliance				Week				
				Week1	Week2	Week3	Week4	Total
.00	Staff_ID	Staff4	Count	1				1
			% within Staff_ID	100.0%				100.0%
			% within Week	100.0%				100.0%
			% of Total	100.0%				100.0%
		Total	Count	1				1
			% within Staff_ID	100.0%				100.0%
			% within Week	100.0%				100.0%
			% of Total	100.0%				100.0%
1.00	Staff_ID	Staff1	Count	1	1	1		3
			% within Staff_ID	33.3%	33.3%	33.3%		100.0%
			% within Week	50.0%	33.3%	33.3%		37.5%
			% of Total	12.5%	12.5%	12.5%		37.5%
		Staff3	Count	1	1	1		3

			% within Staff_ID	33.3%	33.3%	33.3%		100.0%
			% within Week	50.0%	33.3%	33.3%		37.5%
			% of Total	12.5%	12.5%	12.5%		37.5%
		Staff4	Count	0	1	1		2
			% within Staff_ID	0.0%	50.0%	50.0%		100.0%
			% within Week	0.0%	33.3%	33.3%		25.0%
			% of Total	0.0%	12.5%	12.5%		25.0%
	Total		Count	2	3	3		8
			% within Staff_ID	25.0%	37.5%	37.5%		100.0%
			% within Week	100.0%	100.0%	100.0%		100.0%
			% of Total	25.0%	37.5%	37.5%		100.0%
2.00	Staff_ID	Staff1	Count	0			1	1
			% within Staff_ID	0.0%			100.0%	100.0%
			% within Week	0.0%			33.3%	25.0%
			% of Total	0.0%			25.0%	25.0%
		Staff2	Count	1			0	1
			% within Staff_ID	100.0%			0.0%	100.0%
			% within Week	100.0%			0.0%	25.0%
			% of Total	25.0%			0.0%	25.0%
		Staff3	Count	0			1	1
			% within Staff_ID	0.0%			100.0%	100.0%
			% within Week	0.0%			33.3%	25.0%
			% of Total	0.0%			25.0%	25.0%
		Staff4	Count	0			1	1
			% within Staff_ID	0.0%			100.0%	100.0%

		% within Week	0.0%			33.3%	25.0%
		% of Total	0.0%			25.0%	25.0%
	Total	Count	1			3	4
		% within Staff_ID	25.0%			75.0%	100.0%
		% within Week	100.0%			100.0%	100.0%
		% of Total	25.0%			75.0%	100.0%
3.00	Staff_ID Staff2	Count		1			1
		% within Staff_ID		100.0%			100.0%
		% within Week		100.0%			100.0%
		% of Total		100.0%			100.0%
	Total	Count		1			1
		% within Staff_ID		100.0%			100.0%
		% within Week		100.0%			100.0%
		% of Total		100.0%			100.0%
4.00	Staff_ID Staff5	Count	1				1
		% within Staff_ID	100.0%				100.0%
		% within Week	100.0%				100.0%
		% of Total	100.0%				100.0%
	Total	Count	1				1
		% within Staff_ID	100.0%				100.0%
		% within Week	100.0%				100.0%
		% of Total	100.0%				100.0%
5.00	Staff_ID Staff2	Count		0	1	1	2
		% within Staff_ID		0.0%	50.0%	50.0%	100.0%
		% within Week		0.0%	50.0%	50.0%	40.0%

			% of Total		0.0%	20.0%	20.0%	40.0%
		Staff5	Count		1	1	1	3
			% within Staff_ID		33.3%	33.3%	33.3%	100.0%
			% within Week		100.0%	50.0%	50.0%	60.0%
			% of Total		20.0%	20.0%	20.0%	60.0%
	Total		Count		1	2	2	5
			% within Staff_ID		20.0%	40.0%	40.0%	100.0%
			% within Week		100.0%	100.0%	100.0%	100.0%
			% of Total		20.0%	40.0%	40.0%	100.0%
Total	Staff_ID	Staff1	Count	1	1	1	1	4
			% within Staff_ID	25.0%	25.0%	25.0%	25.0%	100.0%
			% within Week	20.0%	20.0%	20.0%	20.0%	20.0%
			% of Total	5.0%	5.0%	5.0%	5.0%	20.0%
		Staff2	Count	1	1	1	1	4
			% within Staff_ID	25.0%	25.0%	25.0%	25.0%	100.0%
			% within Week	20.0%	20.0%	20.0%	20.0%	20.0%
			% of Total	5.0%	5.0%	5.0%	5.0%	20.0%
		Staff3	Count	1	1	1	1	4
			% within Staff_ID	25.0%	25.0%	25.0%	25.0%	100.0%
			% within Week	20.0%	20.0%	20.0%	20.0%	20.0%
			% of Total	5.0%	5.0%	5.0%	5.0%	20.0%
		Staff4	Count	1	1	1	1	4
			% within Staff_ID	25.0%	25.0%	25.0%	25.0%	100.0%
			% within Week	20.0%	20.0%	20.0%	20.0%	20.0%
			% of Total	5.0%	5.0%	5.0%	5.0%	20.0%
		Staff5	Count	1	1	1	1	4

	% within Staff_ID	25.0%	25.0%	25.0%	25.0%	100.0%
	% within Week	20.0%	20.0%	20.0%	20.0%	20.0%
	% of Total	5.0%	5.0%	5.0%	5.0%	20.0%
Total	Count	5	5	5	5	20
	% within Staff_ID	25.0%	25.0%	25.0%	25.0%	100.0%
	% within Week	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total	25.0%	25.0%	25.0%	25.0%	100.0%

Summary

Critical Findings

In the implementation of this project and protocol, the most significant finding was a increase in knowledge on the subject and statistics regarding medication adherence, techniques for improving patient rapport, assessment methods, motivational interviewing, techniques and for overcoming barriers. This was seen in the improved post-quiz scores and in the final debriefing survey. Staff were interested in the follow-up resources for further reading/ study, and a Nurse Practitioner champion agreed to lead in helping continue the utilization of the medication adherence protocol.

Thus, the strengths of the project were that it increased knowledge about an important topic, provided guidelines and a protocol to follow, taught them new therapeutic communication techniques such as motivational interviewing techniques, assessment tools such as MARS and provided follow-up resources.

The weakness of the project were that the sample size was small as staff participants were limited, and they were mostly therapists and not medication management providers. The therapists were not as motivated as nurses or prescribing staff, in following the protocol. Despite

weekly email reminders, they said that visual reminders such as adding a section to the charting template would have helped. Visual modifications to the chart template were suggested to mention to the director to improve compliance with the protocol moving forward.

Interpretation

Evidence-based treatments such as psychoeducation, delivered by nurses in a previously published psychiatric out-patient center study align with the results of this study (Ameel et al, 2019). There are limited studies of nursing interventions in the adult psychiatric outpatient setting and even less directed at educating the psychiatric care staff (Ameel et al, 2019).

The impact of the project on the participants and system itself, was clinically significant as it has brought the participants and facility up-to-date with evidence-based practice for managing medication adherence, and deepened the rapport with patients. The use of the MARS tool helped close any gaps in assessment and improved communication between the client and provider/therapist.

The association between the intervention and the outcomes were divided. While the knowledge increased as seen in the post-quiz and debriefing, the written documentation was not significantly improved. The difference between the observed medication adherence intervention charting, and the anticipated outcomes should not have been a surprise.. Several barriers were identified. Nurse Practitioners were more compliant than the family therapists in addressing medication non-adherence, possibly because it is a usual part of their assessment as medication management providers. This coincides with the literature where nurses are some of the most active participants in studies (Ameel, 2019; Lin, 2022). Participants suggested they needed visual reminders, and suggested that it needs to be added to the assessment part of the chart.

During the intervention the enthusiasm was palpable, so the anticipated outcome was high, but the observed outcome turned out to be lower than anticipated.

In implementing this project, one cost is the time for the participants to participant, and time needed to document. Spending a few minutes longer with the client to make a thorough medication adherenence assessment is a trade-off because it reduces the therapy time, but ensures patient safety with handling an important and sensitive subject. The DNP Nurse is a valuable asset to any facility as she / he can integrate evidence-based practice into the system and make a significant improvement in the quality of life of the clients, as well as keeping staff up-to-date. It was a good /successful opportunity to increase the knowledge among the staff on the topic. One anticipated system cost might be that the facility will need to update their chart template to included medication adherence assessment and the MARS tool.

Limitations

Factors that might have limited the project include bias, design, data collection and data analysis.

Bias

A bias that was identified was that therapists (and everyone) believed tthat the therapists could be equally motivated to document medication adherence assessment despite not being involved in medication management. In fact, the therapists were the most enthusiastic participants at the initial education seminar, and the final debriefing, but actually followed through the least on the implementation of the protocol If more Nurse Practitioners could have been available, the outcome would have been more robust.

Design

The design of the project included a telemedicine assessment, a MARS questionnaire and free documentation. Many participants had trouble remembering to add a note about medication adherence in the notes.

Data Collection

The facility director emailed staff schedules, as charts were listed by client name. The digital weekly staff assignments and schedules varied because they worked as a team, seeing each others' patients and being the lead in some, making chart review challenging.

Conclusion

Brief summary of project

Participants were given a quiz before an educational intervention on the topic of medication non-adherence, improving client-patient rapport, motivational interviewing, reducing barriers to taking meds and evidence-based solutions for combating barriers. Participants were to document assessment results along with their session notes for audit.

Usefulness of the Work:

Medication non-adherence is a global crisis and approximately 50% of patients are non-compliant (Eliasson et al, 2020). It contributes to a reduced quality of life and shortened lifespan. This work brings attention to the fact that all facilities need to be educated in the importance of med adherence.Innovative digital reminders and other strategies are introduced using evidence-based practice.

Sustainability

The educational quality improvement project materials are digital, and a facility champion has been established to ensure the continuation of the implementation of the evidence-based

protocol. As well, a mandatory annual review and update for all staff is required to be implemented and records maintained..

Recommendations for the future:

Discussion at the end regarding how an embedded section of chart specific for medication adherence assessment/ MARS would have helped remind the providers and made a big difference in assessment.

Implications for practice in the field (Nursing Practice)

Nurses are great patient advocates and champions for medication adherence. Nurses also embrace new ideas to inspire and improve old problems. Care providers, and therapists, need to work together as they share a common goal, to heal the patient.

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Appendix "A"

Pre & Post Invention Medication Adherence Improvement Questionnaire

Participant # ____

This is an anonymous questionnaire. You will draw a code number to link your pre and post questionnaire. Please remember the number you selected.

Circle the most correct answer:

1. Two techniques that the practitioner may use to enhance the therapeutic relationship:
   A. Focused questions & reflective listening
   B. Reflective listening & explaining
   C. Shared decisions & analysis
   D. Motivational interviewing & shared decisions

2. The percentage of patients who do not adhere to their medication prescription(s):
   A. 30% B. 50% C. 75% D. 80%

3. Barriers to medication adherence include all except:
   A. Self-management skills B. Stigma C. Polypharmacy D. Pharmacy error

4. Motivation interviewing skills include all except:
   A. Collaboration.
   B. Education
   C. Discrepancy development.
   D. Amplified Reflection

5. The best practice for assessment of medication adherence is:
   A. Checking-in with patient on medication adherence challenges each session.
   B. Having patient complete a written MARS questionnaire.
   C. Checking if prescriptions have been picked up.
   D. Checking in with patient each session and having them complete MARS questionnaire.

6. According to the World Health Organization, what does medication adherence impact?
   A. Quality of life B. Length of life. C. Health care costs D. All of these

7. What percentage of your patients that are on psychotropic medication do you ask about medication adherence or prescription compliance?
   A. 0 – 15% B. 16-30% C. 31– 60% D. 61-75% E. 76 - 100%

8. What percentage of your patients are having struggles with taking their medications regularly or have had setbacks or relapses in the past month?
   A. 0-15% B. 15-30% C.31- 60% D. 61-75. E. 76 -100%

Appendix "B"

CHAPTERS
Family Treatment Center

Out-Patient Psychiatry
Policy & Procedures
Title: Client Medication Non-Adherence Protocol

Page No.	Policy No.
Required Review: Dr. Parhami, Medical Director	
Approval	
Approval Date: 12/18/23	
Effective Date: 02/29/24	
Responsible Position(s):All therapists/providers	

INTRODUCTION:

Medication non-adherence in patients with severe mental health disorders such as bipolar and schizophrenia, impacts the quality of the patient's life, may cause relapses, rehospitalizations, escalating health care costs, family disruptions, and even early death (Lin et al., 2022). Extra support is needed from mental health professionals and family.

PURPOSE:

The purpose of this protocol is to provide support to the most vulnerable of our psychiatric patients to assist with medication adherence to ensure a better quality of life, prevent relapses and rehospitalizations, and to promote participation in their own care, (Kizilrmak et al, 2021).

RESPONSIBILITY:

Every mental health practitioner is responsible for completing the medication non-adherence training program and implementing the evidence-based protocol and documenting in their session notes 1) assessment for medication adherence, 2) administration of MARS assessment tool, 3) assessment of barriers to compliance and interventions, if any (National Council, 2021).

The following is the evidence-based practice procedure:

PROCEDURE:

1. TRAINING PROGRAM: All mental health staff will complete the Medication Non-adherence training program, and new staff upon hire, to increase their knowledge of the prevalence and impact of medication non-adherence, its multiple barriers, and strategies to improve medication adherence (National Council, 2021, p.20). It will include four main content areas:
    a. **Strengthening the patient-practitioner bond** through shared decision-making (SDM) and motivational interviewing (MI) techniques.

b. **Documentation of continued on-going assessment** of patient medication adherence and use of MARS tool (National Council, 2021).
c. **Documentation of assessment of barriers & individualized interventions** based on best practices (see Barriers/Interventions chart following).
d. **Documentation of patient education on medication adherence** and/or specific medication education (National Council, 2021).

2. ON-GOING ASSESSMENT, PSYCHOEDUCATION & DOCUMENTATION:
After the training program, the practitioner will regularly assess the patient at the beginning of their session interactions, on the patient's medication adherence, do a quick MARS, restate the importance of medication adherence, inquire about any medication side effects or concerns, or new barriers that may have arisen (National Council, 2021; Chan et al., 2020). The National Institutes of Health (NIH) Adherence Network reports that use of self-report tools in clinical practice is efficient timesaving (National Council, 2021). The practitioner will make a note in the session document to state 1) medication adherence assessed and patient response, 2) Psychoeducation of disease or medication specifics, 3) Barriers and interventions, assessed or evaluated (Baskaya et al, 2022) .

3. SUSTAINABILITY PLAN: Using motivational interview concepts and shared decision concepts, patient self-empowerment and family support is encouraged. All mental health practitioners will continue to regularly assess and support patients as new barriers or changes in patient's life can occur, (National Council, 2021). A facility Medication Adherence Improvement Champion /Team Leader is recommended by national guidelines to be appointed to lead the Implementation Team to ensure the interventions needed are continued without interruption. Please let the director know if you are interested in this important role if it is not already filled (Deng et al., 2022 ; National Council, 2021).

(Attachments: Barriers & Interventions, MARS Assessment Tool, Motivational Interview Core Concepts.)

Barriers and Interventions

Factors/ Barriers	Intervention/Tools/Resources
1. **Self-management skill deficit**. (Newly diagnosed, young or elderly, missed, forgot, took it twice by mistake, complex scheduling, cognitive impairment…)	Electronic reminders. Use phone alarm, Siri/Alexis, or reminder Apps to send reminder messages/ alarm. Take with on travel
2. **Knowledge Deficit of illness and medications.** (Fear, attitudes, mistrust, cognitive issues, stigma…) (i.e. stopped abruptly, mixed with other. substances such as alcohol,)	Assess knowledge. Improve health and mental health literacy. Psychoeducation with an equal relationship and coaching style respectful attitude, via individual or group counseling sessions on diagnoses, medications, potential side effects and other treatments and support. Repeat and simplify as needed.
3.**Self-Dosing issues**: Independent pausing, stopping, alteration of dose, self-dosing. (Beliefs, values, denial, lack of symptoms, increased symptoms, complex regimen, perceived. benefits/risks…)	Assess reasons. Educate to help understand their disorder and its management. Medication management to reassess.
4. **Side Effects**: Stopped due to side effects such as tired, sluggish, tremor… and/or decreased access to service. (Adverse side effects, polypharmacy, other substances interfering, new illness, co-morbidity…)	Educate importance of notifying Medication Management/psychiatrist immediately to report change in condition, before stopping medication that they may need to be weaned off, for reassessment
5.**Socioeconomic barriers**: cost, insurance coverage, access to care, homelessness, substance abuse, transportation, unstable living situation, poverty.	Refer to social worker, social services.

(Chan et al., 2020; Kvarnstrom et al., 2023; National Council, 2021).

Motivational Interviewing (MI) Core Skills

"Enhancing intrinsic motivation to change by exploring and resolving ambivalence."
(Miller and Rollnick, 2002)

Demonstrating MI "Spirit" (encourages ownership, enhances self-efficacy, assumes competency)
- Respect Autonomy vs. exert authority.
- Collaborate vs. confront.
- Evoke vs. educate.
- Explore vs. explain.

Using Opening Strategies (creates a safe environment for disclosure and creative exploration)
- Open questions
- Affirmation
- Reflective Listening
- Periodic Summaries

Maintaining a Therapeutic Alliance

Principles (supports consonance)	***Traps*** (creates dissonance)
DO: Express empathy	**DON'T:** Argue, disagree, challenge
Develop discrepancy (Decisional Matrix)	Analyze, explain, direct.
Role with resistance	Judge, criticize, blame, label.
Support self-efficacy	warn, try to persuade with logic.

Eliciting and Exploring "Change Talk" (supports movement toward change)
- Reasons (Problem recognition)
- Desire, Need (Concern)
- Ability (Confidence)
- Commitment (Intention)

Responding to "SustainTalk" (respects client's pace while encouraging insight)
- Simple Reflection
- Amplified Reflection
- Double-sided Reflection
- Shifting Focus
- Reframing
- Agreement with a Twist
- Emphasizing Personal Choice and Control
- Coming Alongside (Siding with the Negative)

Recognizing and Consolidating Commitment
(assists client to maintain motivation in the face of residual ambivalence)
- Recapitulation
- Transition
- Exploration of options
- Change plan: Development
  Implementation
  Monitoring
  Refinement

Based on: "Motivational Interviewing," Miller, W & Rollnick, S. (2002)

(Attachment 3 to Protocol/Policy).

(Scoring: The higher the score, the better the adherence)

MARS-5 MEDICATION ADHERENCE RATING SCALE Circle the answer that applies						
#	**Question**	**Always**	**Often**	**Sometimes**	**Rarely**	**Never**
1	I forget to take them.	1	2	3	4	5
2	I alter the dose.	1	2	3	4	5
3	I stop taking them for a while.	1	2	3	4	5
4	I decide to miss a dose.	1	2	3	4	5
5	I take less than instructed.	1	2	3	4	5
	Column Totals					
	TOTAL SCORE					

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7885329/#:~:text=The%20MARS-5%

MARS-5 MEDICATION ADHERENCE RATING SCALE Circle the answer that applies						
#	**Question**	**Always**	**Often**	**Sometimes**	**Rarely**	**Never**
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	Column Totals					
	TOTAL SCORE					

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7885329/#:~:text=The%20MARS-5%

Appendix "C"

Weekly Data Collection Tool. Chart Audit

Documented Criteria: 1) Assessment of Med Adherence/MARS, 2) Assessment of barriers, 3) Patient education: meds/compliance

Week #___0___ Participant #	Compliant (2/3 criteria)	Non-Compliant <2 criteria	# Charts reviewed *(Random 5 charts per participant)*
1			
2			
3			
4			
5			
Column totals			
Week #___1___ Participant #	Compliant (2/3 criteria)	Non-Compliant <2 criteria	# Charts reviewed *(Random 5 charts per participant)*
1			
2			
3			
4			
5			
Column totals			
Week #_____2_ Participant #	Compliant (2/3 criteria)	Non-Compliant <2 criteria	# Charts reviewed *(Random 5 charts per participant)*
1			
2			
3			
4			
5			
Column totals			
Week #___3___ Participant #	Compliant (2/3 criteria)	Non-Compliant <2 criteria	# Charts reviewed *(Random 5 charts per participant)*
1			
2			
3			
4			
5			
Column totals			
Week #____4__ Participant #	Compliant (2/3 criteria)	Non-Compliant <2 criteria	# Charts reviewed *(Random 5 charts per participant)*
1			
2			
3			
4			
5			
Column totals			

APPENDIX "D"

MEDICATION ADHERENCE

Created by Heather Walsh, DNP-IP, MSN-Ed, PMHNP-BC, APRN. Touro University Nevada

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PURPOSE

This presentation is designed to support clinicians, therapists or practitioners with evidence-based practice tools to enhance their skills in assessing and improving patient medication adherence.

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Learning Objectives

1. Define medication adherence.
2. Importance of Medication Adherence
3. Assessment of Non-Adherence
4. Assessing Factors and Barriers
5. Interventions & Solutions
6. Documentation & follow-up

3

1. Definition

Medication Adherence **is:**
- A partnership
- Patient-centered
- Clinician collaborative.
- An information exchange
- Matched to lifestyle
- Goal: self-mastery

*Non-adherence is to be off meds for more than 1 week.

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2. Importance of Medication Adherence

- Stabilize mood and behavior for a more satisfying and longer life.
- Avoid relapses and hospitalizations
- Reduce overall healthcare costs.
- Prevent adverse reactions.

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3.Assessment of Medication Non-adherence

- Build a strong clinician-client therapeutic relationship.
- Use MARS-5 assessment tool to assess.
- Regular assessment at each meeting in a casual conversational manner.
- Educate on importance of medication adherence.
- Use Motivational Interview concepts to guide your conversation to promote medication adherence.

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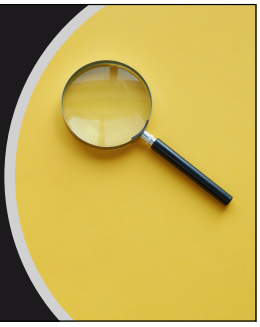
4.Adherence factors

- Ask the patient if they are having an challenges taking their medications…



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Barriers to Adherence

- What are some barriers?
- Side effects
- Cost
- Complex schedule

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5. INTERVENTIONS & SOLUTIONS.

- *Electronic reminder devices*
- *Watch, phone reminders*
- *Medication adherence APPS*
- *Assistance with scheduling*
- *Generic drugs to reduce cost*
- *Family support*

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6. Documentation and Follow-up

1. Document assessment at every client visit.
2. Discuss how their medication adherence is going. Assess for barriers, challenges. And document.
3. Educate about medication adherence and their specific medications, especially if they are taking psychotherapeutics that need to be weaned off of Document education.

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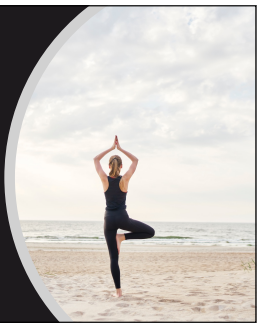
Health and Mental Health Management

- Research shows that with these evidence-based practices, a more stable, satisfying and longer life can be ehanced through medication adherence.



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FURTHER READING

TBA

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Credits

- Thank you to Chapters Treatment Center for their support and collaboration of this quality improvement project.
- Thank you to Touro University Nevada.
- Thank you for your participation and continued dedication to our patients.

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