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Staff Education Project For Enhancing Medication Adherence in Mental Health: An Evidence-Based Education Program for Healthcare Practitioners in Outpatient Clinics

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This is to certify that the doctoral study by

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has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
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Executive Summary:

For Enhancing Medication Adherence in Mental Health: An Evidence-Based Education Program for Healthcare Practitioners in Outpatient Clinics

by

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Summary

The staff education project was designed to address medication non-adherence among mental health patients in an outpatient psychiatric clinic by enhancing the knowledge and skills of mental health nurses and nurse practitioners. The lack of structured, evidence-based training on medication adherence strategies has contributed to poor patient outcomes, increased hospitalizations, and higher healthcare costs. Clinic patient reports indicated 50% medication non-adherence, highlighting the need to address non-adherence through effective nursing-led education, medication management, and adherence monitoring. The project assessed whether enhancing the outpatient healthcare providers' skills and knowledge through a structured, evidence-based program would improve the providers' medication adherence strategies. The project utilized psychoeducation, motivational interviewing (MI), shared decision-making (SDM), and digital adherence tools. The Centers for Disease Control (CDC) Health Literacy Questionnaire was used to measure changes in provider skills, knowledge, and confidence pre- and post-training. Results showed a 44.6% increase in knowledge and skills and a 40% improvement in participants' confidence in applying adherence strategies. Electronic health record (EHR) audits tracking patient adherence showed an 18.2% increase, Perx app improved by 18%, and telehealth participation increased by 14%. Findings showed that the education project enhanced provider competency and confidence in addressing medication adherence. Recommendations include ongoing training, adherence tracking tools, and the retention of effective strategies to sustain progress. The project advanced nursing practice; promoted equitable, inclusive, patient-centered care; and supported positive social change through improved health outcomes.

Background

Medication non-adherence among mental health patients is a significant challenge that leads to symptom relapses, increased hospitalization, higher healthcare costs, and poor treatment outcomes. At the outpatient psychiatric clinic located in the Mid-Atlantic region of the United States, where the project was implemented, 50% of patients reported not adhering to their prescribed medications, contributing to treatment resistance and worsening mental health conditions (Ghosh et al., 2022; Semahegn et al., 2020). Factors influencing non-adherence include stigma, cognitive impairments, medication side effects, substance use, and lack of social support.

The clinic primarily relied on patient support systems, including family members and caregivers, to support medication adherence. The absence of a structured, evidence-based education program for healthcare providers contributed to a practice gap, limiting the application of consistent adherence strategies. Bridging the gap involved enhancing the knowledge base and practical application of targeted strategies to reduce medication non-adherence and support sustained outcomes. The project implemented a structured, evidence-based education program that provided tools to strengthen medication adherence. The core components included using EHRs for adherence monitoring and integrating the Perx smartphone app to facilitate engagement. Li et al. (2021) reported that Perx improved adherence through gamification, real-time tracking, and interactive features. Loots et al. (2021) identified digital interventions, including telemedicine and electronic reminders, as effective adherence support for mental health populations.

The DNP project was guided by the EBP question: “What is the effect of an evidence-based education program for mental health nurses and nurse practitioners on improving medication adherence rates among mental health patients in an outpatient mental health clinic as measured by an EHR audit?" The project sought to enhance the providers' knowledge, skills, and confidence in adherence strategies by incorporating psychoeducation, MI, SDM, and digital adherence tools (telemedicine and the Perx smartphone app). By implementing structured training, the project aimed to improve patient medication adherence as measured by EHR audits, ultimately reducing symptom relapses, hospital readmissions, and poor treatment outcomes. The educational training addressed both systemic and patient-specific factors contributing to medication non-adherence, including stigma, substance use, cognitive impairments, and medication side effects. The project was comprised of a structured, evidence-based education program to enhance staff knowledge by equipping mental health nurses and nurse practitioners with effective medication adherence strategies. The training program used psychoeducation to reduce stigma and improve patient awareness and self-management, motivational interviewing, shared decision-making, and digital tools improved adherence rates and patient engagement (Harmanci & Budak, 2022; Li et al., 2021; Loots et al., 2021). Digital tools included EHR tracking, the Perx smartphone app, and telehealth platforms that addressed systemic barriers by enabling real-time adherence monitoring, personalized reminders, and continuous support, which increased accountability and engagement (Li et al., 2021; Loots et al., 2021). Integrating behavioral strategies, patient-centered communication, and technology established a comprehensive approach that improved adherence, reduced hospital readmissions, and enhanced mental health outcomes.

The training program addressed a key practice gap in the outpatient psychiatric clinic: the absence of structured, evidence-based education to enhance medication adherence strategies among providers. Chien et al. (2015) showed that MI-based adherence therapy significantly improved adherence in individuals with schizophrenia spectrum disorders by addressing cognitive and emotional barriers, aligning with the project's goal to strengthen providers' ability to apply MI techniques. Systematic reviews and randomized controlled trials further support the effectiveness of psychoeducation, SDM, and digital adherence tools in improving adherence and patient outcomes (Del Pino-Sedeno et al., 2024; Loots et al., 2021; Semahegn et al., 2020). The evidence highlights the importance of comprehensive provider training and supports the project's implementation as a practical, evidence-based approach to closing the identified practice gap.

The evidence supporting the practice change is strong and grounded in high-level research. Systematic reviews and meta-analyses (Level I) confirm that multifaceted interventions, including psychoeducation, MI, and digital tools, effectively improved medication adherence in mental health settings (Loots et al., 2021; Semahegn et al., 2020). The EBP strategies were central to the implemented education program, which targeted improving the providers' knowledge, skills, and confidence. Randomized controlled trials (Level II) demonstrated that SDM and MI significantly enhanced self-motivation, adherence, and clinical outcomes (Chien et al., 2015; Del Pino-Sedeno et al., 2024). Additionally, studies showed that digital tools like the Perx app improved adherence through gamification and real-time tracking (Li et al., 2021), aligning with the clinic's technology integration, including EHR tracking and mobile reminders. Level III evidence supported provider-focused training and patient-centered interventions to overcome barriers to stigma, substance use, and lack of insight (Deng et al., 2022; Mohammed et al., 2024). The comprehensive, evidence-based approach informed the project's design and successfully enhanced adherence strategies, improved engagement, and supported long-term mental health outcomes. The strength of the evidence supporting the practice change is highly rated, with most of the evidence evaluated by Levels I, II, and III. Implementing multifaceted, evidence-based adherence strategies ultimately enhanced patient outcomes and reduced hospitalizations.

Staff Education Project Development

The project included 10 mental health nurses and nurse practitioners from an outpatient psychiatric clinic in the Mid-Atlantic region of the United States. The healthcare providers were selected for their critical roles in medication management, patient education, adherence monitoring, and direct patient care. Participation in the evidence-based education program was based on their willingness to engage and contribute to the project's implementation and success. Research has emphasized the importance of healthcare providers in influencing medication adherence through consistent patient interaction and education (Aremu et al., 2022). Similarly, poor aftercare and lack of provider involvement have been identified as major barriers to adherence, reinforcing the need for active provider engagement in adherence strategies (Deng et al., 2022). The findings support the selection of involved and committed providers as essential to closing the practice gap and improving outcomes in mental health settings.

The project included a multifaceted, evidence-based education program on psychoeducation techniques, MI, SDM, and digital adherence tools, including EHR tracking, the Perx smartphone app, and virtual telehealth. The structured training sessions were conducted for over 1 month, with multiple biweekly sessions held virtually and in person in the conference room of the outpatient clinic. The training sessions were designed to accommodate participants' schedules and focused on psychoeducation techniques, MI, SDM, digital adherence tools, and strategies to overcome systemic barriers. Each instructional session lasted approximately 90 minutes, which combined interactive lectures, group discussions, role-playing exercises, and hands-on demonstrations to reinforce learning and skill development. Each training session included components of a pretest assessment using the health literacy knowledge questionnaire to measure the participants' base knowledge, skill, and confidence in applying medication adherence strategies. The training included an educational information session that covered psychoeducation, MI, SDM, and hands-on practice with digital adherence tools. The participants had access to the educational materials, including the handouts, real-time interaction exercises, and small group discussions during and after the sessions to ensure success.

The interactive sessions were a core component of the evidence-based education program, designed to actively engage participants and reinforce their knowledge and skills in medication adherence strategies. Role-playing exercises allowed participants to simulate patient-provider interactions, practicing MI, psychoeducation interventions, and SDM. Participants alternated between healthcare provider, patient, and observer roles, enabling them to experience different perspectives and receive constructive feedback. Each group was assigned real-world challenges, including patients struggling with medication side effects, stigma, or forgetfulness, and tasked with developing evidence-based strategies to address the barriers. The participant assigned groups then presented their solutions to the larger cohort, promoting peer learning and knowledge exchange. A post-test Health Literacy Questionnaire, identical to the pre-test assessment, was also administered to measure changes or improvements in knowledge, skills, and confidence following the intervention. Observers provided feedback on the effectiveness of communication strategies, empathy demonstrated, and ability to address adherence barriers.

The data collection process involved administering a pre- and post-education assessment to evaluate healthcare providers' knowledge, skills, and confidence in implementing medication adherence strategies. Structured assessments aligned with evidence from Chien et al. (2015) demonstrated that targeted interventions, including MI, were most effective when providers were adequately trained and assessed for competency. Semahegn et al. (2020) and Loots et al. (2021) also emphasized the importance of provider-focused interventions in improving adherence, highlighting the need to evaluate provider readiness and capability before and after educational programs. Responses were gathered using the Health Literacy Questionnaire, completed immediately before and after the evidence-based education program. The questionnaire measured changes in the providers' ability to apply strategies including psychoeducation, MI, SDM, and digital adherence tools. EHR tracking and installing the Perx app on each participant's smartphone were implemented to support and monitor medication adherence. EHR tracking allowed for real-time documentation of medication schedules and adherence trends and provided healthcare providers with a clearer view of participants' behavior. The Perx app, including personalized medication reminders, gamification, and real-time tracking, was used to engage patients and encourage consistent medication use. The data collected through the Perx app and EHR helped identify adherence barriers, supported timely provider interventions, and improved adherence rates by reinforcing reminders and accountability.

The evaluation process involved a structured comparison of pre- and post-intervention data to assess the effectiveness of the evidence-based education program. The pre- and post-test scores were analyzed using a comparative approach to determine changes in competency. The direct comparison helped identify the impact of training on providers' ability to apply strategies, including psychoeducation, MI, SDM, and digital tools. Additionally, post-training feedback surveys were used to evaluate participants' perspectives and the relevance of the education program.

Results

The instruments used to evaluate the impact of the evidence-based education program included the Health Literacy Questionnaire and the post-training feedback survey. The Health Literacy Questionnaire was administered immediately before and after the intervention to assess changes in participants' knowledge, skills, and confidence in implementing multifaceted adherence strategies, including MI, psychoeducation techniques, telemedicine technologies, and SDM. The compared results showed a significant difference between pre- and post-assessment scores, indicating improved provider competency in applying the evidence-based education strategies. In the knowledge and skill assessment, the pre-test scores for all participants were between 40 and 65, with an average of 52.4, while in the post-test scores, all participants scored between 80 and 95, with an average of 75.8 (see Table 1). The percentage increase in knowledge and skill assessment improved by 44.6%, indicating a significant enhancement in provider competency in medication adherence strategies.

Table 1

Pre-Test and Post-Test Implementation Results

Participants	Pretest Scores	Post Test Scores
1	45	82
2	50	85
3	40	80
4	55	90
5	60	92
6	52	88
7	58	95
8	48	83
9	65	94
10	53	89

Additionally, data shows an increase in provider confidence in applying medication adherence strategies to address systemic barriers, including alcohol use, substance use, and stigma, aligning with the program's goal of enhancing provider competency. Before the intervention, only 50% of participants reported confidence in using adherence strategies. Following the training, 40% demonstrated confidence in applying evidence-based strategies.

The EHR audits also showed an 18.2% increase in medication adherence rates, indicating that trained providers effectively implemented adherence interventions (Table 2). Further, digital adherence tracking and installation of the Perx app increased patient engagement. Perx smartphone app logins increased by 18%, and telehealth participation increased by 14%, demonstrating that participants responded positively to digital interventions.

Table 2

Participants' Engagement Before and After Interventions

Outcome Measure	Before Intervention	Post-Intervention	Percentage Increase
Medication Adherence	5 out of 10 (52%)	7 out of 10 (70.2%)	18.2
Perx App Logins (patient engagement)	4 out of 10 (45%)	6 out of 10 (63%)	18
Telehealth Participation	5 out of 10 (50%)	6 out of 10 (64%)	14

The project encouraged healthcare providers to use a multifaceted approach, including psychoeducation, MI, SDM, and telemedicine interventions, to address medication non-adherence, highlighting the importance of continued collaboration between patient and healthcare provider. The project aligns with the organizational goals of reducing symptom relapses, hospital readmissions, and overall patient outcomes and enhancing medication adherence (Aremu et al., 2022; Deng et al., 2022; Harmanci & Budak et al., 2022; Loots et al., 2021). Likewise, by enhancing the healthcare providers' knowledge and skill during the project with up-to-date evidence-based adherence strategies, the organization fosters a culture of continuous learning, ensuring more effective treatment management, minimizing healthcare costs associated with medication non-adherence, emergency visits, and rehospitalization (Ghosh et al., 2022). Enhancing provider competency ultimately contributes to organizational success by promoting quality care, patient satisfaction, and sustainable healthcare improvement.

The project included only 10 mental health nurses and nurse practitioners, limiting the generalizability of the findings to a larger population of healthcare providers. In contrast, studies conducted by Loots et al. (2021), Harmanci and Budak (2022), and Deng et al. (2022) involved larger participant groups and found that multifaceted interventions including psychoeducation, MI, SDM, and digital tools significantly improved medication adherence strategies. Loots et al. demonstrated that combining these approaches led to higher adherence rates among patients with mental health disorders. Harmanci and Budak confirmed the effectiveness of psychoeducation and MI in enhancing treatment engagement and adherence. Deng et al. identified key barriers, including stigma and inadequate follow-up, and emphasized the role of trained providers and digital tools in addressing these challenges, ultimately improving adherence outcomes.

Additionally, a relatively short post-implementation period was not sufficient to assess the long-term sustainability of improved medication adherence strategies. The short duration limited the ability to track whether these improvements were maintained over time. Extended training and reinforcement strategies lead to better long-term adherence outcomes, suggesting that ongoing education and follow-up assessments are necessary to sustain provider competency (Harmanci & Budak, 2022). Similarly, continuous provider training and structured follow-up interventions improve adherence by reinforcing newly acquired skills (Deng et al., 2022).

Furthermore, the differences in baseline knowledge and skills between mental health nurses and nurse practitioners in medication adherence could impact the adoptability of new concepts, including MI, psychoeducation, SDM, and technological expertise. Prior knowledge provides a foundation for learning, but some providers may resist change, rely on pre-existing approaches, or face challenges adapting to newer techniques. Limited provider training and poor aftercare coordination contributed to medication non-adherence, underscoring the importance of continuous professional development to enhance knowledge retention and skill application (Deng et al., 2022; Aremu et al., 2022).

The project has far-reaching implications as medication non-adherence remains a global challenge in mental health care (Ghosh et al., 2022; Semahegn et al., 2020). Implementing structured, evidence-based education programs for healthcare providers enhances knowledge and skills in psychoeducation, MI, and SDM, ultimately improving adherence rates and reducing hospitalizations. Better adherence leads to improved patient stability, decreasing relapses, and the need for emergency interventions, which can significantly reduce healthcare costs and alleviate the financial burden on the healthcare system. The organization strives to integrate telemedicine, digital integration, and adherence tracking as standardized practices, ensuring sustainable improvements in mental health treatment outcomes and improving patient engagement and adherence outcomes (Li et al., 2021). The organization installed the Perx app on all patients' smartphones to strengthen medication reminders. Ongoing provider training combined with technology integration can significantly improve medication adherence strategies across healthcare settings (Deng et al., 2022).

Conclusion

The project established the effectiveness of an evidence-based education program to enhance healthcare providers' knowledge and skills on strategies to improve medication adherence in mental health clinics. Improving healthcare providers' knowledge and skills aligns with the organizational goals of improving patient outcomes, reducing hospital readmissions, and enhancing medication adherence strategies (Deng et al., 2022). The organization fosters a patient-centered, cost-effective approach to mental healthcare by strengthening interdisciplinary collaboration and equipping healthcare providers with evidence-based adherence strategies.

Future recommendations for the project include extending the post-implementation period to at least six months to assess the long-term sustainability of improved adherence rates (Harmanci & Budak, 2022). Implementing continuous education and refresher training for nurses and nurse practitioners to address medication adherence challenges will reinforce key adherence strategies including psychoeducation, MI, and SDM**,** ensuring sustained skill application (Aremu et al., 2022; Deng et al., 2022; Harmanci & Budak et al., 2022; Loots et al., 2021). Furthermore, encouraging interdisciplinary collaboration among nurses, social workers, and pharmacists can strengthen patient-centered adherence interventions and align with integrated care models (Del Pino-Sedeno et al., 2024). Additionally, digital adherence monitoring should be strengthened by integrating EHR tracking and customized reminders to improve patient engagement and adherence outcomes (Li et al., 2021). Lastly, mandatory onboarding training for all new healthcare providers on up-to-date, evidence-based strategies for medication adherence should be established.

The program drives positive social change by addressing systemic and patient-specific barriers**,** including stigma, substance use, cognitive impairments, and financial constraints**,** leading to better health outcomes (Semahegn et al., 2020). Implementing culturally sensitive adherence strategies promotes inclusive, accessible care, reducing mental health disparities (Ghosh et al., 2022). Interdisciplinary collaboration among nurses, social workers, and pharmacists enhances holistic, coordinated care, improving treatment effectiveness (Del Pino-Sedeno et al., 2024). Expanding equitable access to digital adherence tools and tailored education strengthens health equity and reduces mental healthcare gaps (Beatriz González de León et al., 2022). The evidence-based education program ultimately enhances nursing competencies, improves adherence outcomes, and fosters a patient-centered, sustainable mental healthcare model.

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Appendix A: Pretest Questions and Posttest Questionnaire on Medication Adherence Strategies

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Please respond to the multiple-choice questions by checking the correct response below.

Question 1:
What is the definition of medication adherence?
A. Taking medications only when symptoms appear.
B. Following the prescribed medication regimen as instructed by a healthcare provider.
C. Stopping medication after side effects occur.
D. Taking over-the-counter medications when needed.

Question 2:
What is the primary goal of psychoeducation in medication adherence?
A. To provide medical instructions without addressing patient concerns.
B. To educate patients about their condition and treatment while offering emotional support.
C. To replace the need for follow-up visits.
D. To focus solely on explaining side effects.

Question 3:
How does motivational interviewing support medication adherence?
A. By instructing patients on exactly what to do without their input.
B. By addressing ambivalence and fostering the patient's intrinsic motivation to adhere to treatment.
C. By avoiding discussions about side effects.
D. By prescribing simpler medication regimens.

Question 4:
Which technological tool is used to track medication adherence in the training session?
A. Mobile apps and digital health tools.
B. Pharmacy refill records.
C. Shared decision-making.
D. In-person counseling sessions.

Question 5:
What is one patient-related barrier to medication adherence?
A. Poor communication between healthcare providers and patients.
B. Forgetfulness and misunderstanding treatment regimens.
C. Limited availability of medications in pharmacies.
D. Lack of standardized treatment protocols.

Question 6:
What is the key feature of a multifactorial approach to improving adherence?
A. Focusing only on prescribing simpler medications.
B. Addressing barriers from multiple dimensions, such as behavioral, psychological, and systemic factors.
C. Reducing the number of healthcare providers involved in care.
D. Avoiding discussions of social factors like substance use.

Question 7:
How can substance use, such as alcohol or smoking, affect medication adherence?
A. It has no significant impact on adherence.
B. It can interact with medications or disrupt the patient's routine, reducing adherence.
C. It only affects adherence for over-the-counter medications.
D. It helps patients remember to take medications.

Question 8:
What is the primary role of EHR (Electronic Health Records) in medication adherence?
A. Automatically reminding patients to take medications.
B. Offering discounts on medications.
C. Providing a comprehensive view of medication histories for targeted interventions.
D. Replacing in-person follow-up appointments.

Question 9:
Which communication technique is most effective for addressing ambivalence in patients?
A. Persuasion to follow the prescribed treatment.
B. Motivational interviewing to foster intrinsic motivation.
C. Providing financial incentives for adherence.
D. Increasing the frequency of appointments.

Question 10:
Which of the following is a common barrier to medication adherence?
A. Forgetfulness and fear of side effects.
B. Access to multiple medication reminders.
C. Increased frequency of healthcare visits.
D. Positive reinforcement from healthcare providers.

Question 11:
How confident are you in explaining medication adherence strategies to patients?
A. Very confident
B. Somewhat confident
C. Neutral
D. Not confident

Question 12:
How confident are you in using psychoeducation to support adherence?
A. Very confident
B. Somewhat confident
D. Not confident

Question 13:
How confident are you in applying motivational interviewing techniques during patient interactions?
A. Very confident
B. Somewhat confident
C. Neutral
D. Not confident

Question 14:
How confident are you in identifying barriers to adherence, including forgetfulness, side effects, or substance use?
A. Very confident
B. Somewhat confident
C. Neutral
D. Not confident

Question 15:
How confident are you in using EHR to monitor adherence patterns?
A. Very confident
B. Somewhat confident
C. Neutral
D. Not confident

Question 16:
How confident are you in using a multifactorial approach to address adherence challenges?
A. Very confident
B. Somewhat confident
C. Neutral
D. Not confident

Question 17:
How likely are you to collaborate with a multidisciplinary team to address adherence challenges?
A. Very likely
B. Likely
C. Neutral
D. Unlikely

Question 18:

How confident are you in integrating digital tools (e.g., apps or EHR) into adherence interventions?

A. Very confident

B. Somewhat confident

C. Neutral

D. Not confident.

Appendix B: Sample Session Outline

Session Title: Overcoming Barriers to Mental Health Treatment Adherence

Duration: 90 Minutes

1. **Introduction (10 minutes)**
    - Introduce the topic and objectives of the session.
    - Present a brief case study on a common barrier (e.g., transportation issues or stigma).
2. **Interactive Presentation (15 minutes)**
    - Reference the data from the PowerPoint slides.
    - Engage participants with short questions on perceived barriers.
3. **Small Group Exercise (20 minutes)**
    - Divide participants into groups 4-6. Assign each group a specific barrier (e.g., stigma, financial constraints).
    - Ask groups to discuss:
        - What contributes to this barrier?
        - What strategies could overcome it?
    - Encourage using tools like sticky notes, whiteboards, or brainstorming software.
4. **Group Presentations (25 minutes)**
    - Each group presents their findings and proposed solutions.
    - The facilitator encourages questions and provides constructive feedback.
5. **Collaborative Problem-Solving (15 minutes)**
    - Groups collaborate to integrate the best ideas into a cohesive action plan.
    - Discuss the feasibility and implementation of these solutions.
6. **Conclusion and Evaluation (5 minutes)**
    - Participants share one lesion learned from the session.
    - Distribute short monkey surveys to assess understanding and engagement.

Example Exercise:

Barrier: Stigma in Mental Health Treatment
Task:

- Identify the root causes of stigma in mental health within your context.
- Brainstorm three solutions to reduce stigma and propose one implementation initiative immediately.
- Use a mind map to organize your ideas and be prepared to present in 5 minutes.

Activity Design: Overcoming Barriers to Mental Health Treatment Adherence

Activity Title: Collaborative Problem-Solving for Adherence Challenges

Objective:

1. Participants will identify common barriers to mental health treatment adherence, analyze their causes, and collaboratively propose practical solutions.

Activity Structure

2. **Total Duration**: 90 Minutes

Part 1: Introduction (10 minutes)

3. **Facilitator Briefing**:
   - Share a real-life scenario or case study of medication non-adherence (illustrated in a patient avoiding therapy due to stigma).
   - Highlight the importance of addressing these barriers for successful outcomes.
4. **Exercise:**
   - Ask participants to share a mental health care barrier they have observed or experienced.
   - Record responses on a whiteboard or digital tool.

Part 2: Group Exercise (20 minutes)

5. **Task**: Participants will explore assigned barriers in small groups.

    1. **Setup**:
        - Divide participants into groups of 4-6. Assign each group a specific barrier:
            - Stigma
            - Financial constraints
            - Transportation or logistical challenges
            - Medication side effects and regimen complexity
        - Provide each group with a worksheet or template.
    2. **Instructions**:
        - Identify the root causes of the assigned barrier.
        - Brainstorm at least three potential strategies to address the barrier.
        - Develop an implementation plan.

Part 3: Group Presentations (25 minutes)

1. Each group presents:
    - Their assigned barrier and identified causes.
    - The strategies they brainstormed.
    - Their final proposed solution and how it can be implemented.
2. **Facilitator Role**:
    - Have the groups addressed the potential obstacles that might arise during implementation?

Part 4: Collaborative Synthesis (15 minutes)

1. **Integration**:
    - Combine ideas from all groups into a collective action plan.
    - Use visual tools (e.g., a mind map or prioritized list) to organize and refine

solutions.

2.

- Discuss how participants can apply these solutions in their roles or communities.

Part 5: Conclusion and Evaluation (5 minutes)

1. Lessons learned:
    - Ask participants to share one insight or action they will implement.
2. **Feedback**:
    - Conduct a live poll to gather feedback on the activity's effectiveness.

Appendix C: Sample Role-Playing Activity: Addressing Adherence Barriers Through Practical Scenarios

Activity Title: Role-Playing Solutions for Mental Health Adherence

Objective:

1. Participants will practice applying strategies to address mental health treatment barriers in real-world scenarios, enhancing their problem-solving and communication skills.

Total Duration: 45 Minutes

Part 1: Introduction and Briefing (5 minutes)

2. **Facilitator Overview**:
    - Explain the purpose of role-playing.
    - Provide examples of adherence barriers (e.g., stigma, financial issues, or medication side effects).
    - Assign roles: Participants will alternate as patients, healthcare providers, or observers.

Part 2: Role-Playing Sessions (25 minutes)

1. **Activity Execution**:
    - **Participants in Groups of 3-4**: Each group works with a different scenario.
    - Roles (role play exercise):
        - **Patient**: Shares challenges and expresses reluctance to adhere to treatment.
        - **Healthcare Provider**: Responds empathetically and applies strategies like psychoeducation or motivational interviewing.
        - **Observer**: Evaluates interactions and takes notes on strengths and improvement areas.
2. **Timing**:
    - Each role-play lasts 5-7 minutes.

- Participants rotate roles to gain diverse perspectives.

Part 3: Group Reflection and Feedback (10 minutes)

1. **Debriefing**:
    - Each group discusses the experience:
        - What worked well?
        - What challenges were faced?
        - How did the strategies impact the patient's adherence?
2. **Facilitator Feedback**:
    - The program manager observes interactions and provides structured feedback using an evaluation form.
    - Highlights effective techniques and offers suggestions for improvement.

Part 4: What are the lessons learned (5 minutes)

- Share key lessons learned from the role-playing sessions.
- Distribute handouts summarizing effective communication strategies and adherence solutions.

Example Scenarios

1. **Scenario 1: Stigma**
    - The patient believes seeking therapy will lead to judgment from family and friends.
    - The healthcare provider must address this concern using psychoeducation and reassurance.
2. **Scenario 2: Financial Constraints**
    - The patient cannot afford regular therapy sessions.
    - The provider explores low-cost or community-supported options.
3. **Scenario 3: Medication Side Effects**
    - The patient reports unpleasant side effects from prescribed medication and wants to stop taking it.
    - The provider discusses adjusting the regimen and the importance of communicating concerns.

Appendix D: Role-Play Activity: Enhancing Communication Skills Through Shared Decision-Making

Activity Title: Practicing Communication and Shared Decision-Making in Mental Health Scenarios

Objective:

1. Participants will develop communication skills- specifically active listening, empathy, and shared decision-making—by practicing motivational interviewing (MI) techniques in a role-playing setting.

2. **Total Duration**: 60 Minutes

Part 1: Introduction and Briefing (10 Minutes)

3. **Facilitator Overview**:
    - Highlight the importance of empathy, active listening, and shared decision-making in fostering adherence.
    - Introduce motivational interviewing (MI) to address patient ambivalence and engage them in treatment planning.
    - Provide a brief demonstration of MI principles:
        - Open-ended questions
        - Reflective listening
        - Affirmations
        - Summarizing and collaborative goal setting
4. **Scenario Assignment**:
    - Create a scenario reflecting common communication challenges (including reluctance to start therapy, medication side effects, or stigma-related concerns).

Part 2: Role-Playing Session (30 Minutes)

5. **Setup**:

- Participants work in groups of 3-4, rotating roles:

- **Patient**: The patient Expresses ambivalence or resistance to adherence.
- **Healthcare Provider**: Practices MI techniques to build trust, validate concerns, and foster shared decision-making.
- **Observer**: Takes notes on communication skills, offering constructive feedback after each round.

6. **Activity Steps**:

1. **Role-Play**: Each group selects a scenario, and participants enact the conversation.
   - The "patient" shares concerns, such as feeling overwhelmed by the treatment plan or mistrusting the healthcare system.
   - The "provider" uses MI techniques to explore the patient's perspective and collaboratively identify achievable solutions.
2. **Rotation**: Participants switch roles after 7-10 minutes, ensuring everyone can practice communication skills.

Part 3: Group Reflection and Feedback (15 Minutes)

1. **Group Debriefing**:
   - Discuss what techniques were most effective in building trust and engagement.
   - Reflect on challenges, such as maintaining empathy or eliciting patient input.
2. **Facilitator Feedback**:
   - The program manager provides structured feedback using an evaluation form, highlighting strengths (e.g., use of reflective listening) and areas for improvement (e.g., avoiding closed-ended questions).

Part 4: Lessons learned (5 Minutes)

- Participants share one key insight or skill they will apply in their practice.
- Distribute a handout summarizing MI techniques and examples of open-ended questions and affirmations.

Example Scenarios for Role-Play

1. **Scenario 1: Reluctance to Start Therapy**
   - Patient: “I don’t think therapy will help me. I’ve tried before, and it didn’t work.”
   - Provider Goal: Use reflective listening to validate feelings and explore past experiences, helping the patient consider trying again.
2. **Scenario 2: Concerns About Medication Side Effects**
   - Patient: “I’m tired of feeling groggy all the time. I don’t think I want to keep taking this medication.”
   - Provider Goal: Collaboratively discuss options for managing side effects while emphasizing the importance of adherence.
3. **Scenario 3: Stigma Around Mental Health**
   - Patient: “If my family finds out I’m in therapy, they’ll think I’m weak. I don’t want anyone to know.”
   - Provider Goal: Use affirmations to validate the patient’s feelings and collaboratively explore ways to maintain confidentiality.

Appendix E: Handout for Healthcare Provider Training on Medication Adherence

Title: Enhancing Medication Adherence in Mental Health Care

Why Medication Adherence Matters

- **Definition**: Medication adherence refers to taking medications as prescribed (correct dose, time, and frequency).
- **Impact of medication- nonadherence**:
    - **Relapse and Hospitalization**: Medication nonadherence increases the likelihood of relapse and repeated hospitalizations.
    - **Worsened Outcomes**: Leads to poor mental health outcomes, reduced functionality, and lower quality of life.
    - **Healthcare Costs**: Increases the economic burden on patients and the healthcare system.

Common Barriers to Medication Adherence

- Forgetfulness or confusion about medication regimens.
- Fear of side effects or stigma associated with mental health treatment.
- Substance use (e.g., alcohol or smoking).
- Poor communication or lack of trust between providers and patients.
- Insufficient engagement in shared decision-making.
- Financial constraints or high medication costs.
- Limited access to healthcare services.

Evidence-Based Strategies to Improve Adherence

1. Psychoeducation

- Educate patients about their condition and the importance of adherence.

2. Motivational Interviewing

- Use reflective listening and goal-setting techniques to address ambivalence and empower patients.
- Example: "What goals do you hope to achieve with your treatment?"

3. Simplify Treatment Regimens

- Provide clear, written instructions.

4. Utilize Technology

- Implement telemedicine tools and Perx mobile apps to send reminders. Install the Perx all on the smartphone
- Electronic health records (EHRs) to monitor patient progress.

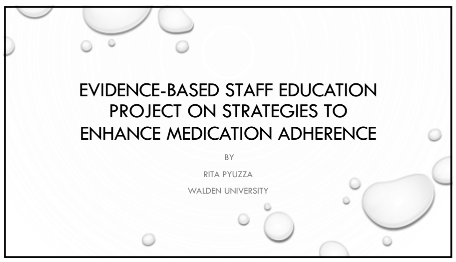
5. Strengthen Patient-Provider Relationships

- Build trust through open communication and empathy.
- Engage patients in shared decision-making about their treatment plans.

How to improve communication

- **Active Listening**: Show understanding by summarizing what the patient says.
- **Empathy**: Validate the patient's feelings and concerns.
- **Clear Language**: Use simple, friendly language.

Appendix F: Evidenced-Based Staff Education Training Project on Medication Adherence Strategies



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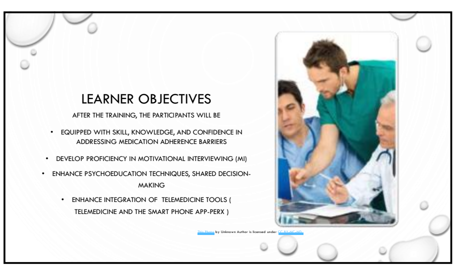

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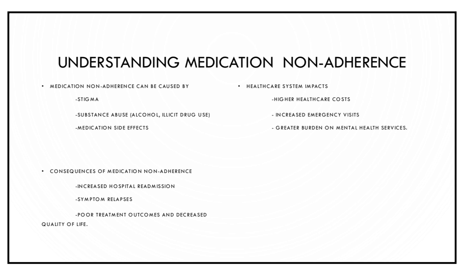

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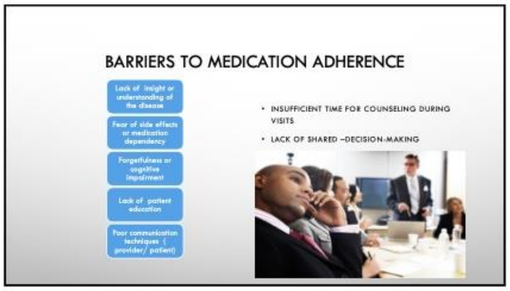
BARRIERS TO MEDICATION ADHERENCE
Lack of insight or understanding of the disease
Fear of side effects or medication dependency
Forgetfulness or cognitive impairment
Lack of patient education
Poor communication techniques (provider/ patient)
• INSUFFICIENT TIME FOR COUNSELING DURING VISITS
• LACK OF SHARED –DECISION-MAKING

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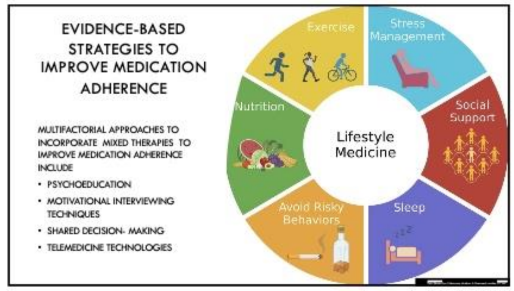
EVIDENCE-BASED STRATEGIES TO IMPROVE MEDICATION ADHERENCE
MULTIFACTORIAL APPROACHES TO INCORPORATE MIXED THERAPIES TO IMPROVE MEDICATION ADHERENCE INCLUDE
• PSYCHOEDUCATION
• MOTIVATIONAL INTERVIEWING TECHNIQUES
• SHARED DECISION- MAKING
• TELEMEDICINE TECHNOLOGIES
Exercise
Stress Management
Social Support
Sleep
Avoid Risky Behaviors
Nutrition
Lifestyle Medicine

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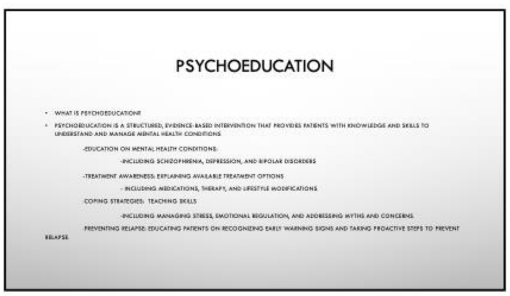
PSYCHOEDUCATION
• WHAT IS PSYCHOEDUCATION?
• PSYCHOEDUCATION IS A STRUCTURED, EVIDENCE-BASED INTERVENTION THAT PROVIDES PATIENTS WITH KNOWLEDGE AND SKILLS TO UNDERSTAND AND MANAGE MENTAL HEALTH CONDITIONS
-EDUCATION ON MENTAL HEALTH CONDITIONS:
-INCLUDING SCHIZOPHRENIA, DEPRESSION, AND BIPOLAR DISORDERS
-TREATMENT AWARENESS: EXPLAINING AVAILABLE TREATMENT OPTIONS
- INCLUDING MEDICATIONS, THERAPY, AND LIFESTYLE MODIFICATIONS
COPING STRATEGIES: TEACHING SKILLS
-INCLUDING MANAGING STRESS, EMOTIONAL REGULATION, AND ADDRESSING MYTHS AND CONCERNS.
PREVENTING RELAPSE: EDUCATING PATIENTS ON RECOGNIZING EARLY WARNING SIGNS AND TAKING PROACTIVE STEPS TO PREVENT RELAPSE

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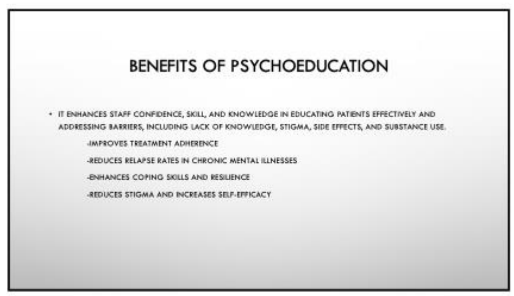
BENEFITS OF PSYCHOEDUCATION
• IT ENHANCES STAFF CONFIDENCE, SKILL, AND KNOWLEDGE IN EDUCATING PATIENTS EFFECTIVELY AND ADDRESSING BARRIERS, INCLUDING LACK OF KNOWLEDGE, STIGMA, SIDE EFFECTS, AND SUBSTANCE USE.
-IMPROVES TREATMENT ADHERENCE
-REDUCES RELAPSE RATES IN CHRONIC MENTAL ILLNESSES
-ENHANCES COPING SKILLS AND RESILIENCE
-REDUCES STIGMA AND INCREASES SELF-EFFICACY

8

MOTIVATIONAL INTERVIEWING(MI)

- WHAT IS MOTIVATIONAL INTERVIEWING?

-MOTIVATIONAL INTERVIEWING (MI) IS A PATIENT-CENTERED, EVIDENCE-BASED COUNSELING APPROACH DESIGNED TO ENHANCE MOTIVATION FOR BEHAVIOR CHANGE. IT IS EFFECTIVE IN PROMOTING MEDICATION ADHERENCE, LIFESTYLE CHANGES, AND ENGAGEMENT IN MENTAL HEALTH TREATMENT.

-ENHANCES PATIENT INVOLVEMENT IN THEIR TREATMENT

-ENHANCES AUTONOMY AND SELF-EFFICACY

9

TECHNIQUES OF MOTIVATIONAL INTERVIEWING (OARS METHOD)

- **O – OPEN-ENDED QUESTIONS:** ENCOURAGE PATIENTS TO EXPRESS THEIR THOUGHTS ("WHAT CONCERNS DO YOU HAVE ABOUT YOUR MEDICATION?").
- **A – AFFIRMATIONS:** RECOGNIZE STRENGTHS AND EFFORTS ("IT'S GREAT THAT YOU'RE OPEN TO DISCUSSING THIS.").
- **R – REFLECTIVE LISTENING:** REPEAT OR REPHRASE TO SHOW UNDERSTANDING ("IT SOUNDS LIKE YOU'RE WORRIED ABOUT SIDE EFFECTS.").
- **S – SUMMARIZING:** REINFORCE KEY POINTS FROM THE CONVERSATION TO ENCOURAGE CHANGE ("SO, YOU WANT TO FEEL BETTER BUT ARE CONCERNED ABOUT LONG-TERM MEDICATION USE.")

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BENEFITS OF MI

- ENCOURAGES PATIENT AUTONOMY IN DECISION-MAKING.
- ENCOURAGES SELF-MOTIVATION AND COMMITMENT TO MEDICATION ADHERENCE
- BUILDS TRUST BETWEEN HEALTHCARE PROVIDERS AND PATIENTS
- ADDRESSES PATIENT CONCERNS, THEREBY REDUCING RESISTANCE TO MEDICATION NON-ADHERENCE

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SHARED DECISION –MAKING(SDM)

- WHAT IS SDM?

-SHARED DECISION-MAKING (SDM) IS A COLLABORATIVE PROCESS IN WHICH PATIENTS AND HEALTHCARE PROVIDERS COLLABORATE TO MAKE HEALTHCARE DECISIONS THAT ALIGN WITH THE PATIENT'S VALUES, PREFERENCES, AND CLINICAL EVIDENCE. IT EMPOWERS PATIENTS TO TAKE ACTIVE TREATMENT ROLES WHILE ENSURING THEY RECEIVE EXPERT PROVIDER GUIDANCE.

-COLLABORATIVE DECISION: PROVIDERS AND PATIENTS COLLABORATE TO CHOOSE THE BEST TREATMENT PLAN BASED ON MEDICAL EVIDENCE AND PERSONAL PREFERENCES.

-INTERDISCIPLINARY TEAMWORK: MULTIPLE HEALTHCARE PROFESSIONALS ARE INVOLVED IN THE TREATMENT PLAN.

-INCLUDING PHARMACISTS, SOCIAL WORKERS, NURSES, MENTAL HEALTH WORKERS, AND MENTAL HEALTH NURSE PRACTITIONERS.

-EXPLORE AND DISCUSS OPTIONS: PROVIDERS PRESENT EVIDENCE-BASED TREATMENT OPTIONS, INCLUDING THEIR RISKS, BENEFITS, AND ALTERNATIVES.

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BENEFITS OF SDM

- INCREASES PATIENT ENGAGEMENT AND TREATMENT ADHERENCE.
- BUILDS PATIENT-PROVIDER TRUST
- MULTIPLE HEALTHCARE PROVIDER INVOLVEMENT IN TREATMENT IMPROVES TREATMENT ADHERENCE, PATIENT SATISFACTION, AND OVERALL HEALTH OUTCOMES.
- IMPROVES HEALTH OUTCOMES BY ENSURING TREATMENTS ALIGN WITH PATIENT NEEDS
- CREATES AN INDIVIDUALIZED TREATMENT PLAN

13

TELEMEDICINE INTERVENTIONS

- WHAT ARE TELEMEDICINE INTERVENTIONS?

-TELEMEDICINE PROVIDES INNOVATIVE SOLUTIONS TO ENHANCE MEDICATION ADHERENCE AMONG MENTAL HEALTH PATIENTS, PARTICULARLY IN OUTPATIENT SETTINGS. BY INTEGRATING DIGITAL TOOLS AND REMOTE HEALTHCARE ACCESS, TELEMEDICINE INTERVENTIONS HELP OVERCOME BARRIERS RELATED TO ACCESSIBILITY, MONITORING, AND PATIENT ENGAGEMENT.

-INCLUDING MOBILE SMARTPHONE APPS- PERX

-VIRTUAL CONSULTATIONS

-ELECTRONIC HEALTH RECORDS (EHR)

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BENEFITS OF TELEMEDICINE INTERVENTIONS

- IMPROVE PATIENT MEDICATION ADHERENCE

- PROVIDE MEDICATION REMINDERS USING THE SMARTPHONE APP- PERX

- ENABLES REMOTE MONITORING

-ENHANCE EHR TRACKING

REDUCES BARRIERS, INCLUDING TRANSPORTATION AND ACCESSIBILITY

-VIRTUAL TELEMEDICINE CONSULTATIONS TO ADDRESS PATIENT CONCERNS

15

ACTIVITIES

- PROVIDER EDUCATION AND TRAINING

-CONDUCT TRAINING PROGRAMS AND CONTINUING EDUCATION SESSIONS ON ADHERENCE STRATEGIES

-INCLUDE PSYCHOEDUCATION, MI, SDM, AND TELEMEDICINE TOOLS).

- PATIENT-CENTERED COMMUNICATION STRATEGIES

-USE MOTIVATIONAL INTERVIEWING (MI) TECHNIQUES TO ENCOURAGE ADHERENCE.

-IMPLEMENT SHARED DECISION-MAKING (SDM) TO INVOLVE PATIENTS IN TREATMENT PLANS

- TECHNOLOGY-DRIVEN SUPPORT

-IMPLEMENTING THE USE OF THE SMARTPHONE APP PERX TO ENCOURAGE PATIENT MEDICATION ADHERENCE THROUGH REMINDERS

-VIRTUAL TELEMEDICINE APPOINTMENTS

- MULTIDISCIPLINARY TEAM COLLABORATION

-ENHANCE PATIENT MEDICATION ADHERENCE

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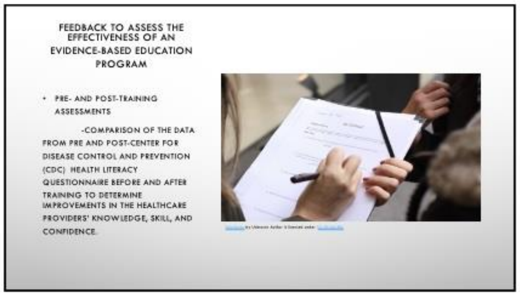

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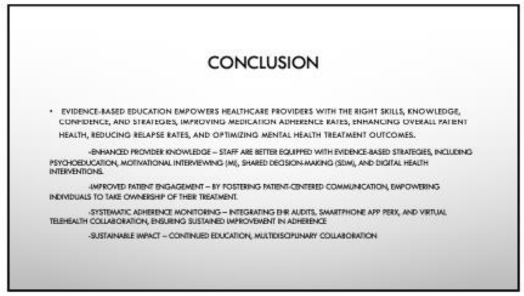

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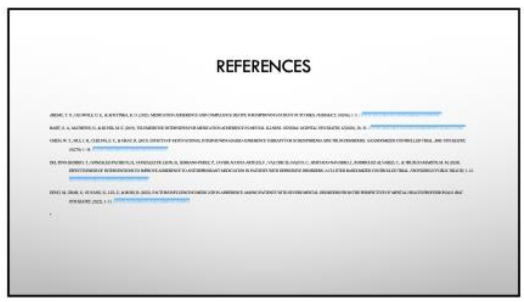

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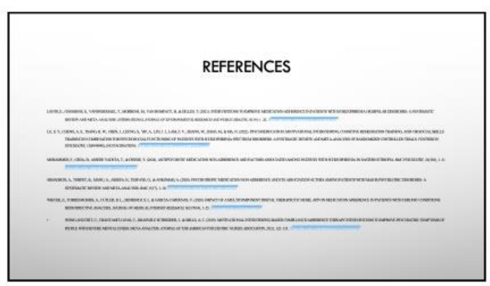

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