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Walden University

College of Nursing

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Grace Kalu

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Executive Summary: Clinical Practice Guideline
Development of an Evidence-Based Guideline for Nurse-Led Interventions to Improve
Medication Adherence in Patients With Severe Mental Illness

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Summary

I conducted this Doctor of Nursing Practice (DNP) project to address medication nonadherence among adults with severe mental illness (SMI) in a psychiatric care setting by developing an evidence-based clinical practice guideline (CPG) for nurse-led interventions. The identified practice gap was the absence of a standardized, evidence-informed framework to guide nurses in enhancing pharmacotherapy adherence, which is a critical issue linked to relapse, rehospitalization, and diminished quality of life in this population. This project was guided by the following practice question: Will an evidence-based guideline on nurse-led interventions to improve medication adherence in patients with SMI be approved by a panel of experts using the Appraisal of Guidelines for Research and Evaluation II (AGREE II) tool? A rigorous literature review of 20 peer-reviewed articles from PubMed, CINAHL, and Cochrane informed the guideline's development. I appraised these sources using the Johns Hopkins *Individual Evidence Summary* and *Synthesis & Recommendations* tools, ensuring methodological rigor.

The guideline's quality was evaluated by a panel of three psychiatric mental health content experts using the AGREE II instrument. The CPG achieved a mean domain score of 81.9% across the six domains, with individual domain scores ranging from 44.4% to 100%. Notably, five out of six domains surpassed the 70% benchmark, underscoring the guideline's strong quality and applicability. Implications for nursing practice include equipping nurses with structured, evidence-based tools to address adherence barriers and support recovery. Broader impacts may include reduced psychiatric relapses, improved treatment continuity, and enhanced quality of life for individuals with SMI across inpatient and community settings.

Background

In the United States, the issue of poor medication adherence is further compounded by complex social determinants of health, including limited access to mental health services, socioeconomic disparities, and stigma surrounding psychiatric illness (Substance Abuse and Mental Health Services Administration [SAMHSA], 2023). According to the Centers for Medicare & Medicaid Services (2022), medication nonadherence among Medicaid beneficiaries with SMI contributes to significantly higher healthcare costs and utilization. Marrero et al. (2020) reported that individuals with SMI experience significantly lower adherence to prescribed psychotropic medications, with estimates suggesting that up to 60% of patients are nonadherent at some point in their treatment. Medication nonadherence is associated with increased psychiatric relapses, emergency department visits, hospital readmissions, and overall poorer functional outcomes (Moulaei et al., 2025).

Despite the availability of effective pharmacologic treatments, many patients discontinue their medications within the first 6 months of initiation, especially those newly diagnosed or starting new regimens (Marrero et al., 2020). The chronic nature of SMI necessitates long-term pharmacologic treatment. According to Lim et al. (2022), factors, such as cognitive impairment, lack of insight into illness, fear of side effects, and poor provider–patient communication, contribute to low adherence. Nurses, who serve as consistent points of contact in psychiatric care, are well-positioned to deliver structured interventions that support adherence (Zoromski & Frazier, 2023).

At the clinical site where this DNP project was conducted, medication nonadherence among adults diagnosed with SMI was identified by site leadership as a

critical and ongoing challenge impacting patient outcomes. The clinical site lacked a formal, evidence-based CPG tailored to nurse-led interventions to support medication adherence despite the vital role psychiatric nurses play in ongoing medication education, monitoring, and patient engagement. The identified practice problem led to the development of this DNP project. The practice-focused question guiding the initiative was: Will an evidence-based guideline on nurse-led interventions to improve medication adherence in patients with SMI be approved by a panel of experts using the AGREE II tool? The purpose of the project was to address the absence of a standardized CPG that equips nursing staff with structured, evidence-supported strategies to improve pharmacologic adherence in psychiatric settings.

I used the Johns Hopkins evidence-based practice model for nurses and healthcare professionals to guide the synthesis and evaluation of relevant literature. A total of 35 peer-reviewed articles published between 2020 and 2025 were identified through a systematic search of PubMed, CINAHL, and Cochrane databases. Of these, 20 met inclusion criteria and were used to develop the guideline. The strength of evidence ranged from Level I to Level V, including systematic reviews, meta-analyses, randomized controlled trials, and high-quality cohort studies. The evidence supported the integration of three key nurse-led interventions, psychoeducation, motivational interviewing, and behavioral reminder tools, all of which have demonstrated improved adherence rates and reduced psychiatric rehospitalizations (Diel et al., 2024; García-Pérez et al., 2020).

Although CPGs exist for the pharmacologic management of SMI, I only found a few of them in the extant literature that specifically focused on nursing-led adherence interventions. According to Zoromski and Frazier (2023), nurses are often the most

consistent point of contact in the mental healthcare continuum and are well-positioned to implement strategies that foster sustained engagement and adherence. The gap in structured nursing interventions at the clinical site highlighted the need for this evidence-based guideline. By equipping nurses with a formalized tool rooted in best practices, I aimed to reduce nonadherence, enhance treatment continuity, and ultimately improve clinical and psychosocial outcomes for adults living with SMI.

CPG Development

The evaluation of the resulting CPG was guided by the AGREE II instrument, a validated framework designed to evaluate the methodological rigor and transparency in the creation of CPGs (see AGREE Next Steps Consortium, 2017). I used the AGREE II instrument to assess the quality of this CPG. This tool consists of 23 items grouped into six key domains: Domain 1 – Scope and Purpose (three items), Domain 2 – Stakeholder Involvement (three items), Domain 3 – Rigor of Development (eight items), Domain 4 – Clarity of Presentation (three items), Domain 5 – Applicability (three items), and Domain 6 – Editorial Independence (two items). In addition, two overall assessments were employed to rate the guideline's quality and whether it is recommended for clinical use. Each item on the AGREE II tool was scored using a 7-point Likert scale, where 1 = *strongly disagree* and 7 = *strongly agree*. The AGREE II framework provided structure for both the development and evaluation process to ensure the guideline was both evidence-based and suitable for clinical implementation.

An expert panel of three psychiatric professionals served as content experts to assess the quality and clinical relevance of the guideline. I selected the panelists based on their professional qualifications, board certifications, and practical experience in

psychiatric nursing and medication adherence support. The first panelist was a doctoral-prepared psychiatric mental health nurse practitioner with over 10 years of experience in adult inpatient psychiatry and community mental health. The second panelist was a master's-prepared psychiatric mental health nurse practitioner with 6 years of experience in outpatient psychiatric practice, specializing in psychopharmacologic education and medication compliance strategies. The third panelist held a dual board certification as a family nurse practitioner and psychiatric mental health nurse practitioner, with more than 7 years of experience in integrated behavioral health and nurse-led intervention models. Their collective expertise ensured comprehensive feedback across clinical, theoretical, and practical dimensions of guideline implementation.

To initiate the review process, I contacted each panelist via phone and email and provided them with a description of the project, its purpose, and the role they would play in reviewing the guideline. All three agreed to participate in the evaluation using the AGREE II instrument. The completed draft of the CPG and the AGREE II tool were shared electronically, and each panelist was given 2 weeks to complete their review. To ensure clarity, I held an individual discussion session with each panelist to walk through the components of the guideline, explain the domains of the AGREE II tool, and answer any questions. A joint group discussion was also conducted via a virtual meeting to establish consensus on the review expectations and address any methodological concerns.

After the 2-week evaluation period, the panelists submitted their completed AGREE II assessment forms. I collected and analyzed their feedback to determine the overall quality and acceptability of the CPG (see Appendix A). Following the AGREE II tools analysis guidelines, each domain score was calculated using the equation of:

obtained score – minimum possible score / maximum possible score – minimum possible score X 100 (see Agree Next Steps Consortium, 2017).

Results

I used a domain score of $\geq 70\%$ as the threshold for the guideline to be considered high quality and suitable for implementation.

Domain 1 – Scope and Purpose

The CPG's scope and purpose received a score of 92.6%. The expert panel agreed that the overall objectives of the guideline were clearly specified, the health questions were well-defined, and the target population was appropriately described (see Table 1).

Table 1

Domain 1: Scope and Purpose

	Item 1	Item 2	Item 3	Total
Expert 1	7	6	7	20
Expert 2	7	5	7	19
Expert 3	7	6	7	20
Total	21	17	21	59

Note. Calculation: $59 - 9 / 63 - 9 \times 100 = 92.6\%$.

Domain 2 – Stakeholder Involvement

The CPG's stakeholder involvement received a score of 87%. The expert panel agreed that the development group included individuals from all relevant professional groups and that the target users of the guideline were clearly defined. However, there was moderate concern about the extent to which patients' views and preferences were sought during development (see Table 2).

Table 2*Domain 2: Stakeholder Involvement*

	Item 4	Item 5	Item 6	Total
Expert 1	6	3	7	16
Expert 2	7	6	7	20
Expert 3	7	6	7	20
Total	20	15	21	56

Note. Calculation: $56 - 9 / 63 - 9 \times 100 = 87\%$.

Domain III – Rigor of Development

The CPG's rigor of development received a score of 81.3%. The expert panel agreed that the methods used to search for and synthesize the evidence were appropriate, though there were suggestions to add the procedures for updating the guideline (see Table 3).

Table 3*Domain 3: Rigor of Development*

	Item 7	Item 8	Item 9	Item 10	Item 11	Item 12	Item 13	Item 14	Total
Expert 1	7	5	6	7	6	7	7	1	46
Expert 2	7	7	5	7	5	7	7	3	48
Expert 3	7	7	5	7	5	7	7	2	47
Total	21	19	16	21	16	21	21	6	141

Note. Calculation: $141 - 24 / 168 - 24 \times 100 = 81.3\%$.

Domain IV – Clarity of Presentation

The CPG's clarity of presentation received a score of 100%. The expert panel agreed that the recommendations are specific, unambiguous, and easily identifiable as well as that the key recommendations are presented clearly (see Table 4).

Table 4*Domain 4: Clarity of Presentation*

	Item 15	Item 16	Item 17	Total
Expert 1	7	7	7	21
Expert 2	7	7	7	21
Expert 3	7	7	7	21
Total	21	21	21	63

Note. Calculation: $63 - 9 / 63 - 9 \times 100 = 100\%$.

Domain V – Applicability

The CPG's applicability received a score of 76.4%. The expert panel acknowledged that the guideline provided useful advice on facilitators and barriers to implementation and discussed resource implications. However, they noted that additional strategies for practical application in diverse settings could enhance usability (see Table 5).

Table 5*Domain 5: Applicability*

	Item 18	Item 19	Item 20	Item 21	Total
Expert 1	5	7	5	6	23
Expert 2	5	7	4	5	21
Expert 3	5	7	5	6	23
Total	15	21	14	17	67

Note. Calculation: $67 - 12 / 84 - 12 \times 100 = 76.4\%$.

Domain VI – Editorial Independence

The CPG's editorial independence received a score of 44.4%. The expert panel noted that the guideline did not clearly state that the views of the funding body had no influence on the content and that disclosures of potential competing interests were not explicitly documented (see Table 6).

Table 6*Domain 6: Editorial Independence*

	Item 22	Item 23	Total
Expert 1	4	4	8
Expert 2	3	4	7
Expert 3	5	2	7
Total	12	10	22

Note. Calculation: $22 - 6 / 42 - 6 \times 100 = 44.4\%$.

The overall assessments of the three experts all exceeded the 70% benchmark with an average overall score of 81.9%, indicating a high-quality guideline. Domain 1 scored an average of 92.6%, highlighting the guideline's clearly defined objective and relevance to the target population. Domain 2 scored 87%, reflecting that appropriate nursing stakeholders were involved in the development process. Domain 3 averaged 81.3%, affirming that systematic evidence review and methodology were used. Domain 4 scored 100%, indicating that the guideline's language and structure were clear and actionable. Domain 5 scored 76.4%, reflecting that the guideline included practical tools and strategies for implementation. Domain 6 received a score of 44.5%, primarily because there was no disclosure of conflicts of interest and funding bodies since there were none.

The overall quality assessment yielded an average global rating of 6 out of 7, indicating strong endorsement by the expert panel. All three panelists recommended the guideline for use in psychiatric nursing practice without modifications. They noted that the guideline provided a strong foundation for evidence-based nursing care and adequately addressed the practical challenges nurses face in supporting medication adherence among adults with SMI. Expert feedback also emphasized that the guideline's integration of psychoeducation, motivational interviewing, and behavioral reminders was

comprehensive, actionable, and grounded in current evidence. The panelists appreciated the inclusion of implementation tools, such as training workshops, reminder platforms, and structured care plan templates. They described the format as user-friendly and suitable for various psychiatric settings, including inpatient units and community mental health programs. One panelist remarked that the incorporation of teach-back methods within psychoeducation sessions was especially valuable in supporting patients with cognitive impairments and low health literacy. Another panelist stated that the motivational interviewing framework was critical in fostering trust and autonomy in a population often ambivalent about medication use.

The primary limitation of this project was the small expert panel and single clinical site, which may impact generalizability. Furthermore, although 20 high-quality articles were synthesized, I did not include broader stakeholder feedback, such as from patients and interprofessional teams, in the project. Future projects should explore implementation outcomes in diverse practice settings and consider incorporating patient-reported experiences of adherence interventions. Despite these limitations, this project may hold relevance beyond the local site. The CPG has the potential to support standardized nursing practices across psychiatric settings, improve medication adherence, reduce relapse rates, and enhance continuity of care for patients with SMI. As U.S. healthcare systems seek to reduce hospital readmissions and increase engagement in mental health treatment, structured, nurse-led interventions supported by high-quality clinical guidelines can contribute meaningfully to those goals (García-Pérez et al., 2020; SAMHSA, 2023).

Conclusions

This DNP project successfully addressed a critical practice gap in psychiatric mental healthcare by developing an evidence-based CPG to support nurse-led interventions aimed at improving medication adherence among adults with SMI. Rooted in an identified clinical need at the project site, I developed the project in response to the absence of a standardized protocol for nurses to systematically engage patients in adherence-promoting strategies. The finalized guideline, which integrated psychoeducation, motivational interviewing, and behavioral reminders, was developed through a rigorous evidence appraisal process and validated using the AGREE II instrument, which is an internationally recognized framework for evaluating the methodological soundness of clinical guidelines.

The outcomes of this project reinforce the feasibility and value of empowering psychiatric nurses through structured guidance in adherence promotion. Expert panel feedback confirmed that the guideline is not only methodologically sound but also clinically relevant, actionable, and adaptable across varied psychiatric settings. The unanimous endorsement by panelists attests to the guideline's potential to improve nursing practice and patient outcomes. Notably, the AGREE II domain scores reflect the high level of clarity, rigor, applicability, and stakeholder involvement embodied in the final product. This achievement underscores the effectiveness of using structured tools, such as the Johns Hopkins evidence-based practice model and the AGREE II appraisal tool, in advancing evidence-based nursing leadership within mental health systems.

The implications of this project are significant. Medication nonadherence in SMI populations remains a deeply entrenched barrier to recovery, one that is often influenced

by multifactorial and interrelated causes, such as cognitive impairments, limited insight, stigma, side-effect concerns, and systemic inequities in care delivery. By equipping nurses with structured strategies that address these barriers holistically, the guideline contributes to more proactive, patient-centered nursing interventions. Moreover, the embedded training tools, communication frameworks, and behavioral supports promote consistency in clinical practice and empower nurses to deliver care that is both compassionate and empirically grounded. The project's relevance extends beyond the boundaries of a single psychiatric site because it offers a scalable and replicable model for other institutions confronting similar challenges with SMI populations.

This project also supports the broader goals of healthcare policy and quality improvement. By targeting one of the leading contributors to psychiatric hospitalization and emergency utilization—nonadherence to medication—the guideline aligns with the objectives of the Centers for Medicare & Medicaid Services and the SAMHSA to reduce avoidable psychiatric admissions, promote continuity of care, and improve long-term functional outcomes for vulnerable populations. Through strategic implementation of this CPG, mental health institutions can reduce healthcare costs while advancing equity and quality of care, especially for Medicaid recipients and underserved communities disproportionately impacted by mental illness.

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Appendix: Clinical Practice Guideline for Nurse-Led Interventions to Enhance Medication Adherence in Patients with SMI

Summary

Medication non-adherence in patients with Severe Mental Illness (SMI) contributes to increased relapse rates, hospitalizations, and poor quality of life (Jayasree et al., 2024). This Clinical Practice Guideline (CPG) outlines evidence-based, nurse-led strategies to improve medication adherence at Peak Mental Health. According to Peterson (2025), through psychoeducation, motivational interviewing, and behavioral strategies, nurses can systematically address barriers to adherence and improve patient outcomes. The guideline was developed using evidence synthesis, expert panel review, and structured evaluation via the AGREE II instrument.

Purpose & Scope

- **Purpose:**
Create standardized evidence-based nursing strategies to increase pharmacotherapy adherence among adult patients with Severe Mental Illness (SMI).
- **Scope:**
Applies to all nursing staff and psychiatric clinical settings within Peak Mental Health's adult psychiatric unit and community mental health programs, where nurse-led medication adherence interventions will be delivered.

Target Population

- Adults (≥ 18 years) diagnosed with SMI
- Patients newly initiated on antipsychotic, mood-stabilizer, or other long-term psychotropic regimens
- Those with documented suboptimal adherence ($< 80\%$ of doses)

Guideline Development Methodology

1. Literature Review & Evidence Synthesis

- Systematic search of PubMed, CINAHL, Cochrane (2020–2025)
- Key terms: “medication adherence,” “psychoeducation,” “motivational interviewing,” “behavioral reminders” “severe mental illness”

2. Expert Panel Review

- 2 psychiatric mental health nurses
- AGREE II evaluation (target $\geq 70\%$ agreement)

Key Recommendations

Intervention	Description	Evidence Level	Strength of Recommendation	Implementation Notes
Psychoeducation	Provide structured education on diagnosis, treatment benefits/side effects, and adherence strategies.	A	Strong	4–6 sessions; include family/caregivers; use teach-back.
Motivational Interviewing (MI)	Employ client-centered MI to explore ambivalence, set adherence goals, and elicit change talk.	A	Strong	2–3 brief (20–30 min) sessions; guided by MI manual.
Behavioral Reminders	Use pill organizers, automated texts/calls, smartphone apps, or calendar alerts to prompt dose times.	B	Moderate	Assess patient’s tech access; customize reminder modality.

Implementation Guidance

- **Staff Training**
 - 2-hour workshop on MI principles and psychoeducation modules
 - Competency checklists and role-play exercises

- **Tools & Resources**
 - Psychoeducation slide deck + patient handouts
 - MI quick-reference cards
 - Digital reminder platform subscription

- **Workflow Integration**
 - Incorporate a “Medication Adherence” section into nursing care plan template
 - Schedule follow-up calls/texts at 1 week, 2 weeks, and monthly thereafter

