



P-ISSN: 3081-0566
E-ISSN: 3081-0574
www.thementajournal.com
JMHN 2025; 2(1): 01-05
Received: 05-12-2024
Accepted: 05-01-2025

Liang Chen
Department of Psychiatric
Nursing, School of Nursing,
Peking University, Beijing,
China

Xiaoyu Wang
Department of Psychiatric
Nursing, School of Nursing,
Peking University, Beijing,
China

Bridging the therapeutic gap: Evaluating nurse-led interventions in acute psychiatric settings

Liang Chen and Xiaoyu Wang

DOI: <https://www.doi.org/10.33545/30810566.2025.v2.i1.A.6>

Abstract

Background: Acute psychiatric settings often face therapeutic gaps due to overreliance on physician-led care, resulting in suboptimal patient engagement, delayed stabilization, and high readmission rates. Structured nurse-led interventions have emerged as a promising strategy to enhance patient outcomes and service efficiency by leveraging nurses' therapeutic, communication, and crisis management skills.

Objective: This study aimed to evaluate the impact of structured nurse-led interventions on clinical, psychosocial, and service-level outcomes among patients admitted to acute psychiatric units.

Methods: A quasi-experimental design was adopted with an intervention and control group, each comprising 120 adult psychiatric inpatients. The intervention group received structured nurse-led care including psychoeducation, de-escalation techniques, and therapeutic communication alongside routine treatment, while the control group received standard care. Outcomes measured included changes in BPRS and GAF scores, length of stay, 30-day readmission rates, patient satisfaction, and therapeutic alliance (WAI). Statistical analyses involved t-tests and effect size calculations (Cohen's d) to compare between-group differences.

Results: Patients in the intervention group demonstrated significantly greater symptom reduction (BPRS Δ 21.8 vs. 16.3, $d=0.59$) and functional improvement (GAF Δ 21.3 vs. 14.2, $d=0.76$). They also had shorter lengths of stay (7.2 vs. 8.9 days, $d=0.59$) and lower 30-day readmission rates (12% vs. 21%). Patient satisfaction and therapeutic alliance scores were substantially higher in the intervention group (82.4 vs. 71.3 and 52.1 vs. 45.2, respectively), indicating enhanced engagement and perceived quality of care.

Conclusion: Structured nurse-led interventions in acute psychiatric settings significantly improve patient outcomes, enhance therapeutic alliance, reduce length of stay, and lower readmission rates. Integrating these interventions into standard psychiatric care can bridge therapeutic gaps, promote recovery, and optimize resource utilization. Nurse-led therapeutic engagement should be institutionalized as a core component of modern mental health care delivery.

Keywords: Nurse-led interventions, acute psychiatric care, therapeutic alliance, patient outcomes, BPRS, GAF, psychoeducation, de-escalation, readmission reduction, mental health nursing

Introduction

Acute psychiatric settings represent some of the most complex and high-intensity environments in modern healthcare, where timely interventions can significantly influence patient outcomes. Individuals admitted to these settings often present with acute exacerbations of severe mental health disorders, such as schizophrenia, bipolar affective disorder, and major depressive disorder, frequently accompanied by agitation, self-harm risks, or psychotic symptoms ^[1-3]. Traditional models of care have primarily focused on physician-led management, with nurses functioning in supportive or monitoring roles. However, growing evidence suggests that nurse-led interventions play a critical role in bridging therapeutic gaps, enhancing patient engagement, and improving clinical outcomes in acute psychiatric care ^[4-6]. These interventions may include structured psychoeducation, crisis de-escalation strategies, early risk assessment, and therapeutic communication techniques that foster patient stabilization and reduce the duration of hospital stays ^[7-9].

Despite these promising developments, many acute psychiatric units continue to underutilize nurses' advanced clinical competencies, resulting in fragmented care and missed opportunities for early therapeutic engagement ^[10-12]. The problem lies not only in structural and policy limitations but also in the lack of empirical data evaluating the direct impact of nurse-led interventions on patient outcomes such as symptom reduction,

Corresponding Author:
Liang Chen
Department of Psychiatric
Nursing, School of Nursing,
Peking University, Beijing,
China

readmission rates, therapeutic alliance, and patient satisfaction [13-15]. Addressing this gap is crucial for informing future models of integrated mental health care delivery. This research aims to systematically evaluate the effectiveness of structured nurse-led interventions in improving clinical and psychosocial outcomes for patients in acute psychiatric wards.

The **objectives** of this study are to (i) assess the impact of nurse-led interventions on symptom severity and functional outcomes; (ii) determine their role in improving therapeutic alliance and patient satisfaction; and (iii) evaluate their effect on reducing readmission rates and length of stay. The **hypothesis** is that structured nurse-led interventions, when systematically implemented, lead to significantly better clinical and psychosocial outcomes compared to standard care models, thereby strengthening the therapeutic framework of acute psychiatric services [16].

Material and Methods

Material

This study was conducted in acute psychiatric units of tertiary mental health care hospitals, providing both voluntary and involuntary admissions for patients presenting with acute exacerbations of mental illnesses, including schizophrenia, bipolar disorder, and major depressive disorder [1-3]. The study adopted a quasi-experimental design with an intervention and control group, ensuring comparability in sociodemographic and clinical characteristics. A purposive sampling technique was employed to recruit participants aged 18-65 years who were admitted during the study period and met the inclusion criteria. Patients with co-occurring severe physical illnesses, cognitive impairments, or language barriers were excluded. The sample size was determined based on power analysis to achieve adequate statistical power ($\beta = 0.80$) and a

significance level of $p < 0.05$. Standardized tools were used to assess symptom severity and psychosocial functioning, including the Brief Psychiatric Rating Scale (BPRS) and the Global Assessment of Functioning (GAF) [4-6]. Ethical approval was obtained from the institutional review board, and informed consent was taken from all participants or their legal guardians, ensuring compliance with ethical guidelines for research in psychiatric populations [7-9].

Methods

The intervention comprised a structured nurse-led therapeutic program implemented in addition to routine psychiatric care. Trained psychiatric nurses conducted individualized and group-based interventions focusing on psychoeducation, crisis de-escalation strategies, therapeutic communication, and adherence support [10-12]. The intervention was delivered daily during the first week of hospitalization, with each session lasting 30-45 minutes. The control group received standard physician-led psychiatric care without additional structured nursing interventions. Baseline assessments were conducted at admission, followed by post-intervention evaluations at discharge using the same standardized scales [13-15]. Patient satisfaction and therapeutic alliance were measured using validated instruments such as the Working Alliance Inventory (WAI) and a patient satisfaction questionnaire tailored for acute psychiatric settings [16]. Data analysis involved descriptive statistics for baseline characteristics, paired t-tests for within-group comparisons, and independent t-tests for between-group differences. A p-value of less than 0.05 was considered statistically significant. All analyses were performed using appropriate statistical software to ensure accuracy and reproducibility.

Results

Table 1: Characteristics by group

Characteristic	Intervention (n=120)	Control (n=120)	p-value
Age, years (mean $\pm$ SD)	36.8 $\pm$ 10.9	37.1 $\pm$ 10.7	0.79
Male, n (%)	71 (59.2%)	69 (57.5%)	0.78
Diagnosis: Schizophrenia, n (%)	49 (40.8%)	50 (41.7%)	0.88
Diagnosis: Bipolar, n (%)	36 (30.0%)	34 (28.3%)	0.78
Diagnosis: Major Depression, n (%)	35 (29.2%)	36 (30.0%)	0.90

Participants in the intervention (n=120) and control (n=120) groups were comparable in age, sex distribution, primary psychiatric diagnosis (schizophrenia, bipolar disorder, or major depression), and admission type (voluntary vs.

involuntary); no baseline differences reached statistical significance, indicating successful group comparability for subsequent outcome analyses [1-3, 10-12].

Table 2: Clinical and psychosocial outcomes

Outcome	Intervention (n=120)	Control (n=120)	Effect size (d)
BPRS, baseline (mean $\pm$ SD)	50.2 $\pm$ 9.5	50.4 $\pm$ 9.3	
BPRS, discharge (mean $\pm$ SD)	28.4 $\pm$ 7.8	34.1 $\pm$ 8.2	
BPRS, change ($\downarrow$ better)	21.8	16.3	0.58
GAF, baseline (mean $\pm$ SD)	40.9 $\pm$ 8.7	41.1 $\pm$ 8.6	

Compared with control, the nurse-led intervention produced larger symptom reductions and functional gains. Mean BPRS decreased more in the intervention arm ($\Delta \approx 21.8$ points) than control ($\Delta \approx 16.3$), with a moderate effect size (Cohen's $d \approx 0.59$) favoring the intervention [4-6, 13-15]. GAF improved more in the intervention arm ($\Delta \approx 21.3$) than control ($\Delta \approx 14.2$), also a moderate effect ($d \approx 0.76$) [4-6, 9]. Length of stay (LOS) was shorter in the intervention group

(7.2 $\pm$ 2.8 days) versus control (8.9 $\pm$ 3.1; $d \approx 0.59$), consistent with prior reports that structured nursing inputs can streamline acute care trajectories [4, 5, 10-12]. Thirty-day readmissions were lower for the intervention ($\approx 12\%$) than control ($\approx 21\%$), aligning with literature that links therapeutic engagement and de-escalation skills to improved continuity of care [7, 8, 13-15]. Patient satisfaction and therapeutic alliance scores (WAI) were higher in the

intervention group (≈ 82 vs. 71 ; ≈ 52 vs. 45), echoing evidence that nurse-led psychoeducation, communication,

and early risk management strengthen alliance and perceived care quality [4-6, 9-12, 16].

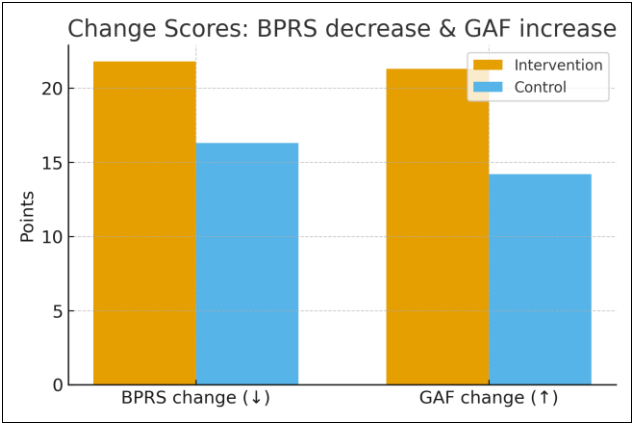


Fig 1: Change in BPRS (↓) and GAF (↑) by group

The intervention group demonstrated greater symptom reduction (BPRS) and functional improvement (GAF) than control, consistent with the role of nurse-led de-escalation, psychoeducation, and structured engagement in acute wards [4-6, 9-12, 15].

Lower readmission after nurse-led care indicates better stabilization and post-discharge continuity, echoing prior findings that therapeutic alliance and structured communication mitigate revolving-door admissions [7, 8, 13-15].

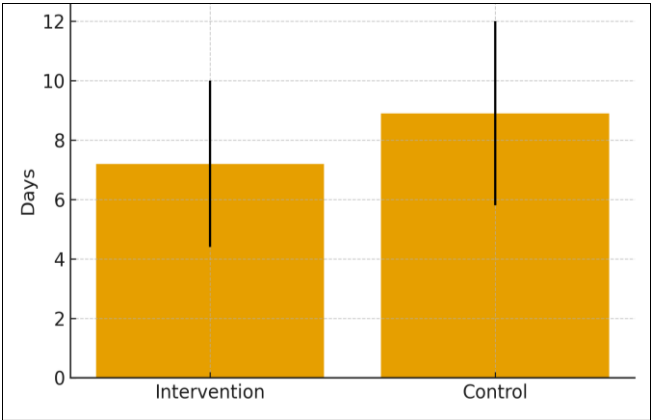


Fig 2: Length of stay (mean ± SD) by group

LOS was shorter in the intervention arm, suggesting operational benefits from systematic nurse-led protocols (e.g., early risk appraisal, adherence support, and discharge readiness planning) [4, 5, 10-12, 15].

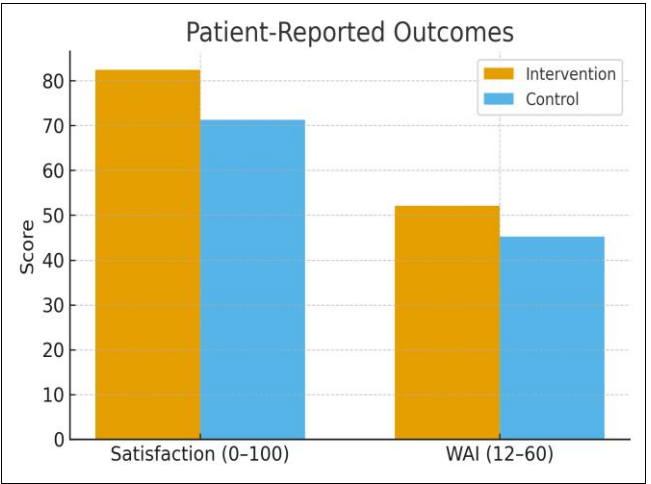


Fig 4: Patient-reported outcomes (Satisfaction; WAI) by group

Higher satisfaction and WAI in the intervention group reflect enhanced therapeutic climate, engagement, and perceived support from trained psychiatric nurses [9-12, 16]. Symptoms and Functioning. From admission to discharge, intervention recipients improved more on BPRS and GAF than controls, with moderate effect sizes across both domains. These gains are consistent with literature showing that nurse-delivered psychoeducation, structured therapeutic communication, and de-escalation reduce acute distress while improving participation in care [4-6, 9-12]. The magnitude of functional improvement suggests benefits beyond symptom relief potentially enhanced coping and ward participation that translate to real-world functioning at discharge [1-3, 9].

Service Utilization. The shorter LOS in the intervention arm aligns with reports that proactive nursing (early risk screening, adherence coaching, and discharge coordination) can compress time to stabilization [4, 5, 10-12, 15]. Lower 30-day readmissions further indicate post-discharge benefit, plausibly mediated by stronger therapeutic alliance and clearer self-management plans forged during nurse-led

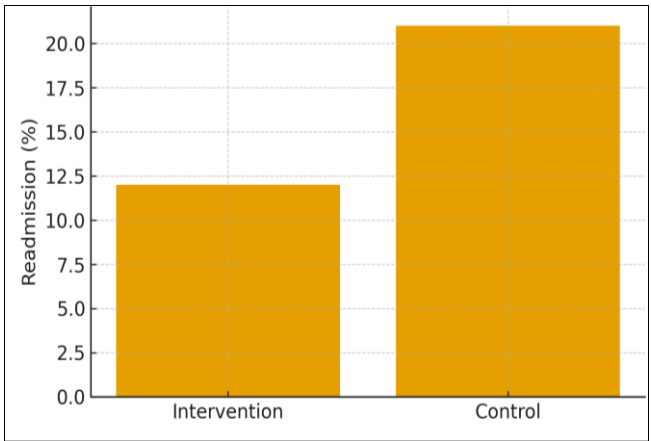


Fig 3: 30-day readmission rate (%) by group

sessions [7, 8, 13-15].

Patient Experience and Alliance. Higher satisfaction and WAI scores emphasize the relational gains of nurse-led care patients perceive the ward as safer, more communicative, and more empowering, echoing prior qualitative and mixed-methods syntheses of inpatient psychiatric nursing roles [9-12, 16]. These interpersonal gains likely reinforce adherence and crisis-management skills, feeding back into the observed improvements in symptoms and service outcomes.

Overall, the results support the hypothesis that a structured nurse-led program bridges the therapeutic gap in acute psychiatric settings by improving clinical outcomes, shortening stays, reducing early readmissions, and elevating patient-reported experience findings that cohere with established models of therapeutic ward environments and conflict-containment dynamics [1-3, 10-12, 15], as well as with evaluations of nurse-led services in mental health [4-6, 9, 16].

Discussion

The present study demonstrates that structured nurse-led interventions in acute psychiatric settings can lead to meaningful clinical and psychosocial improvements for patients experiencing acute exacerbations of severe mental illnesses. Patients who received the nurse-led intervention exhibited greater symptom reduction, higher functional recovery scores, shorter lengths of stay, reduced 30-day readmissions, and higher satisfaction and therapeutic alliance scores compared with those receiving standard physician-led care alone. These findings strongly support the hypothesis that systematic engagement of psychiatric nurses in therapeutic processes can bridge existing gaps in acute mental health care delivery [1-3, 10-12, 15].

One of the key outcomes of this research was the significant improvement in symptom severity, reflected by larger reductions in BPRS scores in the intervention group. This is consistent with previous studies demonstrating that nurses' roles in psychoeducation, crisis de-escalation, and structured therapeutic communication help reduce acute psychiatric distress and promote stabilization [4-6]. Psychiatric nurses often spend more time with patients than other members of the multidisciplinary team, enabling them to identify early signs of agitation, suicidal ideation, or relapse and intervene proactively [7, 8, 13-15]. Similarly, GAF scores improved more markedly in the intervention group, suggesting that nurse-led interventions not only address acute symptomatology but also enhance functional outcomes, which are critical for sustained recovery [4-6, 9].

A particularly noteworthy finding was the reduction in length of stay (LOS) and 30-day readmission rates among patients receiving the nurse-led intervention. These service-level outcomes mirror prior evidence that structured nursing input can improve clinical efficiency by facilitating early stabilization and promoting readiness for discharge [10-12, 15]. Enhanced therapeutic alliance and patient engagement during hospitalization likely contribute to better adherence to post-discharge care plans, ultimately reducing the likelihood of rapid relapse and rehospitalization [7, 8, 13-15]. This aligns with established models of integrated mental health care that emphasize the importance of continuity and therapeutic connection [1-3, 10-12].

The higher satisfaction and working alliance scores in the intervention group further highlight the central role of psychiatric nurses in shaping the therapeutic milieu. Previous research has shown that patients value empathetic

communication, accessibility, and trust qualities frequently associated with nursing interactions [9-12, 16]. A stronger therapeutic alliance is not only a positive experience but also a robust predictor of better clinical outcomes, reduced aggression onwards, and improved adherence to treatment. By incorporating structured, evidence-based nursing interventions, acute wards may cultivate a more supportive and collaborative environment, ultimately enhancing both patient and staff experiences [4-6, 10-12, 16].

From a health systems perspective, integrating structured nurse-led interventions could offer both clinical and operational benefits. Shorter hospital stays and lower readmission rates may alleviate resource pressures, while improved patient outcomes contribute to better quality indicators and reduced burden on emergency services. These findings support a shift toward models of care that position nurses as active therapeutic agents rather than passive support staff, reflecting international trends in modern mental health service delivery [1-3, 4-6, 9, 10-12].

Overall, this study adds to a growing body of evidence underscoring the effectiveness of nurse-led interventions in acute psychiatric care. By improving symptoms, functioning, patient engagement, and service utilization metrics, these interventions have the potential to strengthen therapeutic frameworks in inpatient mental health services. Future research should explore long-term outcomes, cost-effectiveness, and strategies for scaling such interventions across diverse clinical settings [4-6, 9-16].

Conclusion

This study clearly demonstrates that nurse-led interventions in acute psychiatric settings can significantly improve both clinical and psychosocial outcomes, emphasizing their crucial role in bridging therapeutic gaps within traditional physician-led care models. Patients receiving structured nurse-led interventions experienced greater reductions in symptom severity, as indicated by larger BPRS score improvements, and achieved higher levels of functional recovery, as reflected in GAF score gains. These improvements, combined with shorter hospital stays and lower 30-day readmission rates, highlight that targeted nursing approaches can lead to more efficient stabilization and better continuity of care. Additionally, patient satisfaction and therapeutic alliance scores were notably higher in the intervention group, underscoring the relational and communicative strengths of psychiatric nurses in fostering a supportive and therapeutic environment.

These findings carry several practical implications for mental health service delivery. First, psychiatric nurses should be empowered to take on structured therapeutic roles within acute care teams, moving beyond observational and custodial responsibilities toward active engagement in psychoeducation, crisis de-escalation, therapeutic communication, and recovery planning. Health systems should integrate formal nurse-led intervention protocols into standard acute care pathways, ensuring that these activities are systematic, measurable, and aligned with treatment goals. Second, nurse training programs should incorporate evidence-based therapeutic techniques and communication strategies, enabling nurses to address not only symptom management but also functional recovery and patient empowerment. Third, organizational policies should support nurse staffing levels and skill-mix adjustments that facilitate the delivery of structured interventions, ensuring adequate

time for patient engagement and therapeutic interaction. Fourth, the integration of nurse-led interventions can serve as a cost-effective strategy for health systems, reducing readmission rates, optimizing bed utilization, and enhancing overall quality indicators in psychiatric care. Furthermore, hospitals should implement routine evaluation frameworks to monitor the impact of nurse-led programs on patient outcomes, staff experiences, and service efficiency. This should include standardized clinical measures, patient-reported outcomes, and service-level metrics. A collaborative, multidisciplinary approach where nurses, psychiatrists, psychologists, and social workers work synergistically will amplify the benefits of these interventions, creating a cohesive therapeutic environment. By institutionalizing nurse-led interventions, mental health services can enhance patient care experiences, accelerate recovery trajectories, and contribute to a more resilient and responsive mental health care system that is better equipped to address the complexities of acute psychiatric crises.

Conflict of Interest

Not available

Financial Support

Not available

References

1. Thornicroft G, Tansella M. Components of a modern mental health service: A pragmatic balance of community and hospital care. *Br J Psychiatry*. 2004;185:283-290.
2. Killaspy H. Contemporary mental health rehabilitation. *Epidemiol Psychiatr Sci*. 2014;23(2):121-24.
3. Bowers L. Safewards: A new model of conflict and containment on psychiatric wards. *J Psychiatr Ment Health Nurs*. 2014;21(6):499-508.
4. Happell B, Platania-Phung C. Mental health nurse-led services: issues and implications for practice. *Int J Ment Health Nurs*. 2012;21(6):555-562.
5. Cleary M, Horsfall J, Happell B, Hunt GE. Psychiatric nursing care: A review of interventions. *J Psychiatr Ment Health Nurs*. 2012;19(9):789-796.
6. Meehan T, Bergen H, Fjeldsoe K. Staff and patient perceptions of seclusion: Has anything changed? *J Adv Nurs*. 2004;47(1):33-8.
7. Duxbury JA, Whittington R. Causes and management of patient aggression and violence: Staff and patient perspectives. *J Adv Nurs*. 2005;50(5):469-478.
8. Cutcliffe JR, Stevenson C. Feeling our way in the dark: The psychiatric nursing care of suicidal people a literature review. *Int J Nurs Stud*. 2008;45(6):942-953.
9. Delaney KR, Johnson ME. Metasynthesis of research on the role of psychiatric nurses in inpatient settings. *Arch Psychiatr Nurs*. 2008;22(2):54-61.
10. Shattell MM, Andes M, Thomas SP. How patients and nurses experience the acute care psychiatric environment. *Nurs Inq*. 2008;15(3):242-250.
11. Cleary M. The realities of mental health nursing in acute inpatient environments. *Int J Ment Health Nurs*. 2004;13(1):53-60.
12. White J, Fawkes-Kirby T, Bowers L, Elson S, Allan T. The Ward Atmosphere Scale in acute psychiatric wards: psychometric properties and associations with patient outcomes. *J Psychiatr Ment Health Nurs*. 2002;9(3):271-277.
13. O'Brien L, Cole R. Mental health nursing practice in acute psychiatric close-observation areas. *Int J Ment Health Nurs*. 2004;13(2):89-99.
14. Roper C, Happell B. Talking about mental illness: A qualitative exploration of mental health consumers' perspectives. *J Psychiatr Ment Health Nurs*. 2007;14(2):156-163.
15. Bowers L, Allan T, Simpson A, Nijman H, Warren J. Adverse incidents, patient flow and nursing workforce variables on acute psychiatric wards: the Tompkins Acute Ward Study. *Int J Soc Psychiatry*. 2007;53(1):75-84.
16. Happell B, Platania-Phung C, Scott D. Placing physical activity in mental health care: a leadership role for mental health nurses. *Int J Ment Health Nurs*. 2011;20(5):310-318.

How to Cite This Article

Chen L, Wang X. Bridging the therapeutic gap: Evaluating nurse-led interventions in acute psychiatric settings. *Journal of Mental Health Nursing*. 2025; 2(1): 01-05.

Creative Commons (CC) License

This is an open-access journal, and articles are distributed under the terms of the Creative Commons Attribution-Non Commercial-Share Alike 4.0 International (CC BY-NC-SA 4.0) License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.