ORIGINAL ARTICLE

Indonesian Journal Nursing & Health Care, Volume 3 (2), August 2026, p.33-36
https://doi.org/10.64914/zgan3r72

The Effect of Group Activity Therapy on Reducing Hallucination Symptoms in Patients with Schizophrenia at Dadi Regional Special Hospital, Makassar

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Received: July 1, 2026 ○Revised: July 31, 2026 ○Accepted: August 1, 2026

ABSTRACT
Background: Hallucinations are among the most common positive symptoms experienced by individuals with schizophrenia and may impair psychological and social functioning while increasing the risk of harmful behaviors. In addition to pharmacological treatment, Group Activity Therapy (GAT) is a psychiatric nursing intervention designed to improve patients' ability to recognize and control hallucinations.
Objective: This study aimed to analyze the effect of Group Activity Therapy on reducing hallucination symptoms among patients with schizophrenia at Dadi Regional Special Hospital, Makassar.
Methods: This quantitative study employed a pre-experimental one-group pretest–posttest design. A total of 25 patients with schizophrenia experiencing hallucinations were recruited using purposive sampling. Hallucination symptoms were assessed before and after the implementation of Group Activity Therapy. Data were analyzed using the paired sample t-test with a significance level of 95% ($\alpha = 0.05$).
Results: The mean hallucination symptom score decreased from 62.16 ± 12.37 before the intervention to 50.40 ± 15.94 after the intervention. The paired sample t-test revealed a statistically significant difference ($t = 2.373$, $p = 0.026$), indicating that Group Activity Therapy significantly reduced hallucination symptoms among patients with schizophrenia.
Conclusion: Group Activity Therapy has a significant effect on reducing hallucination symptoms in patients with schizophrenia. This intervention may be integrated with pharmacological treatment as part of evidence-based psychiatric nursing care to improve patients' ability to control hallucinations and support the recovery process.
Keywords: Group Activity Therapy, hallucinations, schizophrenia, psychiatric nursing, psychosocial intervention

INTRODUCTION

Mental health is an integral component of overall health. An individual is considered healthy when they are able to develop physically, psychologically, socially, and spiritually, enabling them to function optimally in everyday life. Mental health disorders affect not only an individual's emotional well-being but also their ability to think, behave, interact socially, and maintain their quality of life and that of their family (Ramma et al., 2025). Therefore, contemporary mental health services are no longer focused solely on pharmacological treatment but also emphasise psychosocial and rehabilitative approaches that are oriented towards recovery (*recovery-oriented care*) (World Health Organization [WHO], 2022). Recent evidence also highlights the potential value of structured psychological and non-pharmacological strategies in addressing mental health-related problems and strengthening adaptive coping (Adisa et al., 2026).

Schizophrenia is a severe, chronic, and complex mental disorder that requires long-term management. It is characterised by disturbances in thought processes, perception, emotions, behaviour, and interpersonal relationships. The clinical manifestations of schizophrenia vary considerably, ranging from positive symptoms such as hallucinations and delusions to negative symptoms such as social withdrawal, as well as cognitive impairments that affect an individual's ability to perform daily activities. When not managed comprehensively, schizophrenia may lead to disability, increase the risk of relapse, impair social functioning, and increase the risk of behaviours that may harm oneself or others (American Psychiatric Association [APA], 2022).

Among the various clinical manifestations of schizophrenia, hallucinations are among the most frequently reported symptoms. A hallucination is a sensory perception that occurs in the absence of an actual external stimulus. Patients may hear voices, see objects, smell odours, experience tactile sensations, or perceive other sensations that are not actually present. Auditory hallucinations are the most common type experienced by patients with schizophrenia. Such experiences may cause fear, anxiety, difficulty concentrating, social withdrawal, and, in some cases, aggressive behaviour, particularly when the hallucinations are commanding in nature (*command hallucinations*). Therefore, the ability to recognise and manage hallucinations is a key target of psychiatric nursing interventions (Indonesian National Nurses Association [PPNI], 2021).

The management of patients with schizophrenia requires a multidisciplinary approach that combines

pharmacological and non-pharmacological interventions. Antipsychotic medications play an important role in controlling positive symptoms; however, treatment outcomes are also influenced by medication adherence, family support, coping abilities, and the psychosocial interventions provided throughout the treatment process. In contemporary psychiatric nursing practice, modality therapy is an important strategy for improving patients' adaptive abilities (Rahmawati & Wahyuni, 2024). One recommended modality is Group Activity Therapy (GAT) for Perception Stimulation, a structured group-based intervention designed to help patients recognise their hallucination experiences, identify when hallucinations occur, understand potential triggers, and progressively develop strategies to control them (PPNI, 2021).

Group Activity Therapy has several advantages because it is conducted within a supportive group environment, allowing patients to learn from the experiences of other group members. Through group dynamics, patients not only improve their ability to recognise and control hallucinations but also gain opportunities to practise communication, enhance social interaction, strengthen self-esteem, and develop motivation throughout the recovery process. This approach is consistent with the recovery-oriented paradigm of mental health care, which views patients as individuals with the potential for growth and recovery rather than merely as recipients of treatment (Stuart, 2023).

Previous studies have demonstrated that Group Activity Therapy for Perception Stimulation can improve patients' ability to recognise and control hallucinations. A recent study conducted at Radjiman Wediodiningrat Hospital, Lawang, in 2026 reported improved patient abilities to identify the content and timing of hallucinations and to apply strategies for controlling them after participating in two sessions of perception-stimulation Group Activity Therapy. These findings suggest that GAT can serve as an effective adjunctive intervention in psychiatric nursing care alongside pharmacological treatment (Faizah et al., 2026).

These findings are further supported by other research demonstrating that perception-stimulation Group Activity Therapy can significantly improve patients' ability to control hallucinations. The intervention enhances patients' ability to recognise early signs of hallucinations and apply various management strategies, including verbal confrontation techniques, engaging in conversations with others, participating in scheduled activities, and adhering to prescribed medication regimens. Such an approach may contribute to reducing the intensity of hallucination symptoms and improving patients' ability to maintain contact with reality (Atmojo et al., 2023).

Dadi Regional Special Hospital (Rumah Sakit Khusus Daerah [RSKD] Dadi) Makassar is one of the referral hospitals for mental health services in eastern Indonesia and provides care for a large number of patients with schizophrenia each year. Many patients receiving treatment experience sensory perception disturbances, particularly hallucinations. This condition presents a significant challenge for healthcare professionals, particularly psychiatric nurses, who must provide interventions that extend beyond the acute stabilisation of symptoms through pharmacological treatment. Nursing care should also focus on enhancing patients' ability to manage their symptoms independently, thereby reducing the risk of relapse after discharge and facilitating successful reintegration into the community.

Based on the above considerations, the implementation of Group Activity Therapy to reduce hallucination symptoms represents an important psychiatric nursing intervention that warrants further investigation. This study is expected to provide scientific evidence regarding the effectiveness of Group Activity Therapy in reducing hallucination symptoms among patients with schizophrenia at Dadi Regional Special Hospital, Makassar. In addition to contributing to the development of evidence-based psychiatric nursing practice, the findings may serve as a basis for developing more effective, sustainable, and recovery-oriented modality therapy programmes aimed at improving the quality of life of patients with schizophrenia.

METHODS

This study employed a quantitative approach because it aimed to measure changes in hallucination symptoms before and after the implementation of Group Activity Therapy (GAT) among patients with schizophrenia. A quantitative approach enables researchers to obtain objective data that can be analysed statistically to determine the effectiveness of the intervention (Polit & Beck, 2021).

The study employed a pre-experimental design using a one-group pretest–posttest design. In this design, all participants' levels of hallucination symptoms were assessed before the intervention (pretest). The participants then received Group Activity Therapy according to standard procedures, followed by a second assessment after completion of all therapy sessions (posttest). The difference between the pretest and posttest scores was used to evaluate changes in hallucination symptoms following the intervention (Campbell & Stanley, 2021).

RESULTS

Participant Characteristics

A total of 25 patients with schizophrenia participated in the study. As shown in **Table 1**, the largest proportion of participants were in the late-adulthood group (10, 40.0%), followed by adolescents (8, 32.0%) and early adults (7, 28.0%). Regarding educational attainment, most participants had completed senior high school (15, 60.0%), followed by junior high school (6, 24.0%) and primary school (4, 16.0%).

Most participants were male (21, 84.0%), while 4 (16.0%) were female. In terms of treatment duration, 17 participants (68.0%) had been receiving treatment for less than 1 year, 4 (16.0%) for 1–3 years, and 4 (16.0%) for more than 3 years.

Changes in Hallucination Symptoms Following Group Activity Therapy

The mean hallucination symptom score decreased from 62.16 ± 12.368 at baseline (pretest) to 50.40 ± 15.937 following the Group Activity Therapy (GAT) intervention (posttest). The mean pretest–posttest difference was 11.760 ± 24.774.

A paired-samples *t*-test demonstrated a statistically significant difference in hallucination symptom scores between the pretest and posttest assessments ($t = 2.373$, $df = 24$, $p = 0.026$). The 95% confidence interval for the mean difference ranged from 1.534 to 21.986, indicating a significant reduction in hallucination symptom scores following the intervention.

The paired-samples correlation between pretest and posttest scores was statistically significant and negative ($r = -0.525$, $p = 0.007$). The complete statistical results are presented in **Table 1.**

Table 1. Changes in Hallucination Symptom Scores Before and After Group Activity Therapy

Measure	Pretest	Posttest	Mean Difference	95% CI	*t*	*df*	*p*
Hallucination symptom score	62.16 ± 12.368	50.40 ± 15.937	11.760 ± 24.774	1.534–21.986	2.373	24	0.0

DISCUSSION

The findings of this study demonstrated that The findings of this study demonstrated that Group Activity Therapy (GAT) was associated with a statistically significant reduction in hallucination symptoms among patients with schizophrenia at Dadi Regional Special Hospital, Makassar. A paired-samples *t*-test showed that the mean hallucination symptom score decreased from 62.16 before the intervention to 50.40 after the intervention, with a *p*-value of 0.026 ($p < 0.05$). These findings suggest that GAT may be an effective psychiatric nursing intervention for helping patients reduce the severity of hallucination symptoms. The observed reduction may be explained by the mechanisms underlying perception-stimulation GAT, which focuses on enhancing patients' ability to recognise the content of hallucinations, identify when hallucinations occur, understand potential triggers, and practise strategies for managing hallucinations, including verbal confrontation techniques, engaging in conversations with others, participating in scheduled activities, and improving adherence to pharmacological treatment. Through group dynamics, patients have opportunities to share experiences, provide mutual support, and develop communication and social interaction skills. This approach may strengthen patients' orientation to reality and reduce the extent to which hallucination experiences interfere with their daily lives.

The findings are consistent with those of Faizah et al. (2026), who reported that perception-stimulation GAT significantly improved the ability of patients with schizophrenia to recognise and manage hallucinations following participation in several structured therapy sessions. Their study demonstrated improvements in patients' ability to identify the content and timing of hallucinations and to apply appropriate strategies for managing them after receiving the intervention. The consistency between these findings supports the role of GAT as a potentially effective modality therapy in psychiatric nursing practice.

The present findings are also consistent with those reported by Atmojo et al. (2023), who found that perception-stimulation GAT reduced the intensity of hallucinations by enhancing patients' use of adaptive coping mechanisms. In their study, patients who actively participated in group therapy demonstrated improved abilities to manage hallucinations, greater adherence to medication, and better maintenance of contact with reality compared with their pre-intervention condition. The consistency of these findings suggests that the potential benefits of GAT may be observed across different patient characteristics and clinical presentations of schizophrenia.

In addition to the GAT intervention, the reduction in hallucination symptoms may have been supported by the pharmacological treatment received by participants during hospitalisation. The combination of antipsychotic medication and psychosocial or modality-based interventions is widely recognised as an important component of comprehensive schizophrenia management because it addresses positive symptoms while also supporting patients' psychosocial functioning. Accordingly, GAT may serve not only as an adjunctive intervention but also as a psychosocial rehabilitation strategy that complements pharmacological treatment and supports overall recovery.

The characteristics of the participants may also have contributed to the observed outcomes. Most participants were male (84%), belonged to the late-adulthood group (40%), had completed senior high school (60%), and had been receiving treatment for less than 1 year (68%). These characteristics may have enabled participants to engage actively in group activities, understand the educational material, and participate in exercises aimed at managing hallucinations. Their relatively higher level of educational attainment may also have facilitated comprehension of the information and therapeutic strategies delivered during the intervention sessions.

Nevertheless, this study has several limitations. The one-group pretest–posttest design did not include a control group; therefore, the observed changes in hallucination symptom scores cannot be attributed exclusively to the GAT intervention. In addition, the relatively small sample size (n = 25) and the single-centre setting limit the generalisability of the findings to broader populations of patients with schizophrenia. Future studies should consider using a quasi-experimental design or randomised controlled trial with a larger sample size and longer follow-up period. Future research should also account for potential confounding factors, including

medication adherence, family support, illness severity, and duration of schizophrenia.

Overall, the findings support the potential value of Group Activity Therapy as an integral component of evidence-based psychiatric nursing care. Structured and sustained implementation of GAT in psychiatric hospitals may enhance patients' ability to manage hallucinations, potentially reduce the risk of relapse, improve social functioning, and contribute to a better quality of life among individuals with schizophrenia.

CONCLUSION

This study found that Group Activity Therapy (GAT) was associated with a significant reduction in hallucination symptoms among patients with schizophrenia at Dadi Regional Special Hospital, Makassar. The mean symptom score decreased from 62.16 before the intervention to 50.40 after the intervention ($t = 2.373$, $p = 0.026$).

These findings suggest that GAT may support patients in recognising and managing hallucinations while improving coping skills, reality orientation, and social interaction. GAT may therefore be considered an adjunctive psychiatric nursing intervention alongside pharmacological treatment. Further studies with larger samples, controlled designs, and longer follow-up are needed to confirm these findings.

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