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Clay Art Therapy for Managing Hallucination Symptoms in a Patient with Schizophrenia: A Case Report

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ABSTRACT

Introduction: Mental disorders can affect a person’s ability to perform daily activities, including social functioning. Schizophrenia is a severe mental disorder commonly associated with hallucinations. Non-pharmacological interventions, such as clay-based art therapy, may support emotional regulation and attentional control. **Objective:** To explore the implementation of clay art therapy as a nursing intervention in managing hallucination symptoms in a patient with schizophrenia. **Methods:** This study employed a single case report design involving one patient with schizophrenia who experienced hallucinations. Clay art therapy was administered for five consecutive days. In addition to clay art therapy, standard nursing interventions for hallucination management, including rebuking techniques, medication adherence education, and structured activity scheduling, were also provided. **Results:** There was a gradual decrease in hallucination symptoms, with scores decreasing from 6 on the first day to 0 on the final day of intervention. The patient showed improved concentration, was able to initiate conversation, and was able to maintain eye contact. The ability to control hallucinations improved during the intervention period. **Conclusion:** Clay art therapy as an adjunct to standard nursing care was associated with reduced hallucination symptoms and improved self-control in this case. Further research is needed to confirm its effectiveness.

INTRODUCTION

Mental disorders are conditions characterized by disturbances in cognition, emotion, and behavior that significantly impair daily functioning and social roles. One of the most severe mental disorders is schizophrenia, which is commonly associated with hallucinations as a prominent symptom (National Institute of Mental Health, 2024; World Health Organization, 2025). Hallucinations are perceptual disturbances in which individuals experience sensory perceptions, such as hearing or seeing stimuli, in the absence of external stimuli (Stuart, 2022). These symptoms can lead to significant distress, impaired functioning, and increased risk of harmful behaviors if not effectively managed.

Management of hallucinations typically involves both pharmacological and non-pharmacological approaches. While antipsychotic medications remain the primary treatment for stabilizing symptoms, non-pharmacological interventions play an important complementary role in enhancing patients' coping abilities, emotional regulation, and social functioning (Gina et al., 2025; Rasmawati et al., 2024). Among these approaches, art therapy has gained increasing attention as a therapeutic modality that enables patients to express emotions, improve attention, and engage in meaningful activities. Recent evidence suggests that art therapy may serve as a therapeutic medium that facilitates emotional expression, enhances patient engagement, and supports symptom management in individuals with schizophrenia (Utas-Akhan et al., 2024).

Art therapy involves the use of creative processes, such as drawing, painting, or sculpting, to facilitate emotional expression and psychological healing (Shokiyah & Syamsiar, 2021). Clay-based art therapy, in particular, offers unique therapeutic benefits due to its tactile and sensory characteristics, which may promote grounding, improve concentration, and help divert attention from hallucinatory experiences. Through direct sensory engagement, clay manipulation may support emotional regulation and enhance patients' ability to manage internal stimuli.

In addition, various non-pharmacological approaches, including drawing therapy, guided imagery, and spiritual interventions, have also been shown to reduce psychological symptoms and improve coping abilities in individuals with schizophrenia (Islami et al., 2024; Muthmainnah et al., 2023; Suleha et al., 2025). However, although previous studies have demonstrated the benefits of art-based interventions in improving psychological and behavioral outcomes, evidence specifically examining the use of clay art therapy for managing hallucinations remains limited. In particular, there is a lack of documented case-based evidence regarding the application of clay art therapy in clinical psychiatric settings such as Dadi Special Hospital, South Sulawesi.

Therefore, this study aims to explore the implementation of clay art therapy as an adjunct nursing intervention in managing hallucination symptoms in a patient with schizophrenia. This case report is expected to provide preliminary clinical insight into the potential role of clay art therapy in supporting hallucination management within a structured psychiatric care setting.

METHODS

Study Design

This study employed a single case report design to explore psychiatric nursing care using clay art therapy in a patient with schizophrenia.

Participants and Setting

The participant in this study was a 29-year-old male patient (Mr. M) diagnosed with schizophrenia accompanied by hallucinations who was treated at the Nyiur Ward of the Dadi Special Hospital in South Sulawesi Province. The diagnosis of schizophrenia was established by a psychiatrist based on the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) criteria. During the intervention period, the patient was receiving antipsychotic medication (e.g., risperidone) as part of standard psychiatric treatment. The medication dosage remained stable throughout the study period, with no changes made, in order to minimize potential confounding effects from pharmacological adjustments.

The study was conducted from February 3 to 12, 2025, with clay art therapy administered over five sessions on February 7, 8, 10, 11, and 12, 2025. The participant was selected using purposive sampling based on predefined inclusion criteria, including being cooperative, able to communicate verbally, and willing to participate in the therapy. Exclusion criteria included patients with severe hallucinations, or known allergies to clay materials.

Instruments

The instruments used in this study included mental health nursing care forms, clay art therapy materials, and observation sheets to assess signs and symptoms of hallucinations and patient abilities. The observation sheet was developed based on standard clinical indicators of hallucination symptoms in psychiatric nursing practice, including cognitive, affective, physiological, behavioral, and social responses. To ensure content validity, the instrument was reviewed by two experts in psychiatric nursing, and revisions were made based on their recommendations.

Data Collection Procedure

Clay art therapy was administered over five sessions, each lasting 25 - 35 minutes, conducted on February 7, 8, 10, 11, and 12, 2025. The duration of each session was determined based on standard therapeutic practice in art-based interventions, which typically ranges between 20 and 40 minutes to maintain patient engagement and prevent fatigue. This duration is also consistent with previous studies on clay art therapy in patients with schizophrenia, which implemented sessions of similar length and demonstrated significant improvements in psychological symptoms (Untari, 2021).

Each session consisted of several stages, including orientation, establishment of a therapeutic relationship, guided clay manipulation, and independent creative expression. These stages were designed to facilitate emotional expression, improve concentration, and support the patient's ability to divert attention from hallucinatory experiences.

Observations and interviews were conducted daily to assess changes in hallucination symptoms and patient responses. All observations were performed by the same trained psychiatric nurse to ensure consistency in data collection. Due to the single observer design, inter-rater reliability was not assessed, which may introduce measurement bias.

Data Analysis

Data analysis was performed descriptively by comparing scores for signs and symptoms of hallucinations before and after intervention. Observation data and patient statements were analyzed to identify patterns of change in hallucination control, emotional expression, and daily functioning.

Ethical Consideration

This study was conducted in accordance with the ethical principles of respect for persons, beneficence, and justice. Written informed consent was obtained from the patient prior to participation in the study. The patient was informed about the purpose, procedures, potential benefits, and risks of the intervention. Confidentiality and anonymity were strictly maintained by using initials and removing all identifiable personal information.

RESULTS

This study involved one patient diagnosed with schizophrenia who experienced auditory and visual hallucinations, especially when not engaged in activities. The subject of the study was a 29-year-old male with a history of mental disorders since 2014 after experiencing severe stress. The patient had a history of previous treatment at Mamboro Palu Hospital (Madani Regional General Hospital) for three months and had previously undergone treatment at Dadi Mental Hospital in 2021.

Prior to the intervention, the patient reported experiencing intermittent auditory hallucinations characterized by indistinct whispering voices, which instructed him to curse his family members. The patient also reported visual hallucinations, describing shadows resembling characters from video games, such as a magical monkey and a female ninja. In addition, the patient experienced difficulty sleeping both during the day and at night. Observations revealed that the patient appeared restless, frequently paced back and forth, and occasionally covered his ears.

The intervention consisted of standard nursing care for patients with hallucinations, including teaching patients to rebuke hallucinations, providing medication adherence education, encouraging social interaction, and promoting engagement in daily activities. One of the activities provided to patients was clay art therapy, which was conducted from February 7 to February 12, 2025. Clay art therapy aims to help reduce the intensity of hallucination signs and symptoms. After all interventions were completed, patients were asked to express and describe their feelings during the therapy.

Table 1. Signs and Symptoms of Hallucinations

| Assessment Aspects | Patient Response | | | | |
|---|------------------|------------|------------|------------|------------|
| | 07/02/2025 | 08/02/2025 | 10/02/2025 | 11/02/2025 | 12/02/2025 |
| Cognitive | | | | | |
| Hearing sounds | √ | √ | | | |
| Seeing shadows or light rays | | | | | |
| Affective | | | | | |
| Worried | √ | √ | √ | | |
| Physiological | | | | | |
| Difficulty sleeping | √ | √ | √ | √ | |
| Behavior | | | | | |
| Sitting quietly while enjoying his hallucinations | √ | | | | |
| Social | | | | | |
| Unable to start a conversation | √ | √ | √ | | |
| Unable to maintain eye contact | √ | | | | |

| | | | | | |
|--------------------|----------|----------|----------|----------|----------|
| Total Score | 6 | 4 | 3 | 1 | 0 |
|--------------------|----------|----------|----------|----------|----------|

Table 1 presents the daily observation of hallucination signs and symptoms during the intervention period. Each symptom was assessed dichotomously, with a score of 1 indicating the presence of the symptom and 0 indicating its absence, resulting in a maximum total score of 6.

The findings indicate a gradual decrease in hallucination-related signs and symptoms following the provision of standard nursing care combined with clay art therapy over five days. The total score decreased from 6 on the first day to 0 on the fifth day. The item “seeing shadows or light rays” was included as part of the standard assessment framework; however, this symptom was not observed at any point during the study.

Clinically, several improvements were observed during the intervention period. The patient demonstrated increased eye contact, improved ability to initiate conversations, reduced anxiety levels, and better sleep patterns. Some symptoms that were initially present were no longer identified in the final evaluation. The patient also reported a subjective reduction in hallucination experiences, including no longer hearing voices or seeing disturbing visual perceptions during the observation period. In addition, the patient expressed that clay art therapy provided a sense of enjoyment and helped reduce boredom.

On the final day of observation, no observable symptoms were identified based on the assessment criteria. However, this finding reflects the absence of observable signs during the evaluation period and does not necessarily indicate complete clinical remission. Continuous monitoring is therefore required to confirm the stability and sustainability of symptom improvement.

Table 2. Ability to Control Hallucinations

| Assessment Aspects | Evaluation Date for Each Meeting | | | | |
|--|----------------------------------|------------|------------|------------|------------|
| | 07/02/2025 | 08/02/2025 | 10/02/2025 | 11/02/2025 | 12/02/2025 |
| Mentioning types of hallucinations | √ | √ | √ | √ | √ |
| Describing the content of hallucinations | √ | √ | √ | √ | √ |
| Mentioning the time of hallucinations | √ | √ | √ | √ | √ |
| Mentioning the frequency of hallucinations | √ | √ | √ | √ | √ |
| Mentioning situations that cause hallucinations | √ | √ | √ | √ | √ |
| Describing behavior when hallucinations occur | √ | √ | √ | √ | √ |
| Rebuke hallucinations | √ | √ | √ | √ | √ |
| Taking medication regularly | √ | √ | √ | √ | √ |
| Having a conversation | | | | √ | √ |
| Engaging in activities to control hallucinations, such as art therapy using clay | | √ | √ | √ | √ |
| Total Score | 8 | 9 | 9 | 10 | 10 |

Table 2 shows a consistent improvement in the patient’s ability during the clay art therapy intervention period. At the beginning of the evaluation, the patient’s abilities were still limited; however, gradual improvement was observed at each evaluation point. This improvement was reflected in the patient’s increasing ability to recognize the type, content, timing, and frequency of hallucinations, as well as to apply control strategies such as rebuking hallucinations, engaging in conversations, and participating in structured activities, including clay art therapy.

It is important to note that the indicator “taking medication regularly” reflects adherence to pharmacological treatment, which is part of standard nursing care and not a direct effect of clay art therapy. Therefore, this variable represents a potential confounding factor, as improvements in hallucination control may also be influenced by medication adherence and other concurrent nursing interventions.

At the end of the evaluation period, the patient demonstrated optimal ability based on the assessment criteria. However, this finding should be interpreted cautiously, as it reflects the patient’s ability to perform specific skills under structured clinical supervision rather than full independence or sustained symptom control in daily life. As additional qualitative evidence, photographs of the patient’s clay artwork during the intervention period are provided (Figure 1). These visual data illustrate the patient’s engagement, creativity, and progression in expressive ability throughout the therapy sessions, supporting the observed improvements in attention, emotional expression, and adaptive functioning.



Figure 1. Patient’s Clay Artwork During Therapy Sessions

DISCUSSION

This case report demonstrates a reduction in observable hallucination symptoms and an improvement in the patient’s ability to manage hallucinations over a five-day intervention period in which clay art therapy was provided alongside standard nursing care. Improvements included decreased hallucination frequency, better sleep, increased eye contact, and enhanced social interaction. These findings are consistent with expected outcomes of structured nursing interventions, such as rebuking techniques, medication adherence, and activity scheduling (Abidin & Wahyuningsih, 2020; Oktaviani et al., 2022). A recent systematic review and meta-analysis further supports these findings, reporting that visual art therapy has significant effects on positive and negative symptoms, as well as emotional outcomes in individuals with schizophrenia (Du et al., 2024).

The patient’s increasing ability to engage in conversation and social interaction is also supported by previous findings, which indicate that talking with others can effectively redirect attention away from hallucinations and reduce their intensity (Larasaty & Hargiana, 2019). In addition, engagement in structured activities, including clay art therapy, may reduce maladaptive behaviors such as excessive daydreaming, which is often associated with worsening hallucination symptoms (Azizah & Ana Puji Astuti, 2022).

From a therapeutic perspective, art therapy provides a non-verbal medium for emotional expression and cognitive engagement. Previous studies have shown that art-based interventions can help patients with hallucinations divert attention, improve psychomotor functioning, and enhance emotional regulation (Sianturi et al., 2024). Various forms of art therapy, including drawing, music, and poetry, have been widely used as therapeutic modalities, allowing patients to express internal experiences that may be difficult to verbalize.

Specifically, clay-based therapy offers unique therapeutic benefits due to its tactile and sensory properties. The manipulation of clay provides continuous sensory feedback, which may enhance grounding and promote engagement with external reality. The therapeutic role of clay in facilitating emotional

expression and sensory integration has been highlighted in previous literature (Sholt & Gavron, 2023). Furthermore, creative art-based interventions have been associated with improvements in cognitive, emotional, and social functioning in patients with mental disorders.

Consistent with these findings Ciufalo et al. (2024) reported that creative therapeutic approaches, such as soft material-based interventions, were associated with a reduction in hallucination frequency and anomalous perceptions in patients with schizophrenia. In line with this, the present study suggests that clay art therapy may contribute to improved attention, emotional stability, and the ability to manage hallucinatory experiences.

From a neurobiological perspective, tactile stimulation during clay manipulation may activate sensory and motor pathways, as well as brain regions involved in emotional regulation, such as the limbic system and prefrontal cortex. This sensory engagement may reduce the salience of hallucinatory stimuli by competing for attentional resources and promoting grounding in reality. This finding is consistent with previous phenomenological research indicating that art-making supports embodied engagement and helps individuals with schizophrenia reconnect with their sense of self and lived experience (Mitchell & Meehan, 2022).

Patients with schizophrenia may also present with behavioral risks, including aggression and violence, which require comprehensive management approaches in psychiatric settings (Yulis et al., 2023). However, the findings of this study must be interpreted cautiously. The patient received concurrent standard nursing interventions, including medication adherence support and behavioral strategies. In particular, regular medication intake represents a significant confounding factor, as pharmacological treatment plays a central role in symptom stabilization (Putri & Nadhira, 2024). Therefore, the observed improvements cannot be attributed solely to clay art therapy.

In addition, the potential influence of the Hawthorne effect should be considered, as increased attention from the researcher and structured daily interactions may have contributed to behavioral improvements independent of the intervention itself.

Although the patient demonstrated optimal ability scores at the end of the intervention, this reflects performance within a structured clinical setting and does not necessarily indicate full clinical recovery or independence. The continued need for hospitalization suggests that ongoing monitoring, stabilization, and relapse prevention were still required.

This study has several limitations. As a single case report ($n=1$), the findings cannot be generalized to a broader population. The absence of a control group, the use of a non-standardized instrument, and the lack of observer blinding may introduce bias and limit the strength of causal conclusions. Despite these limitations, this study provides preliminary evidence that clay art therapy may serve as a supportive, non-pharmacological intervention to enhance patient engagement, emotional expression, and adaptive coping in the management of hallucinations. Further research using more rigorous designs and standardized instruments is needed to confirm these findings and establish the effectiveness of this intervention.

IMPLICATIONS FOR NURSING PRACTICE AND INNOVATION

Clay art therapy may be considered a potential non-pharmacological intervention for patients with schizophrenia experiencing hallucinations, as it may help divert attention, support emotional regulation, improve self-control, and enhance engagement in therapeutic activities. Furthermore, from a nursing

practice perspective, clay therapy may serve as a supportive tool for symptom monitoring and patient engagement, while also opening opportunities for the development of creative rehabilitation programs and future research on long-term effectiveness and quality of life outcomes.

CONCLUSION

In this single case report, the provision of clay art therapy as an adjunct to standard mental health nursing care was associated with a reduction in hallucination symptoms and an improvement in the patient's ability to control hallucinations, maintain focus, and express emotions adaptively in one patient with schizophrenia.

These findings suggest that clay art therapy has the potential to serve as a supportive non-pharmacological intervention in the management of hallucinations. However, due to the single-case design, the results cannot be generalized, and further research using more rigorous study designs, such as randomized controlled trials or single-case experimental designs, is needed to establish its effectiveness.

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AUTHOR CONTRIBUTIONS

The authors' contributions to this study are described according to the CRediT (Contributor Roles Taxonomy) as follows: NF: Methodology, Investigation, Data curation, Writing – original draft. R: Conceptualization, Supervision, Methodology, Writing – review & editing. RD: Supervision, Validation, Writing – review & editing. ES: Supervision, Validation, Writing – review & editing. All authors have read and approved the final version of the manuscript.

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CONFLICT OF INTEREST

The author declares that there are no conflicts of interest in this research.

ETHICAL APPROVAL

This study was conducted in accordance with ethical principles. Written informed consent was obtained from the patient prior to participation. Permission to conduct the study was also obtained from the hospital administration.

INFORMED CONSENT

Consent was obtained from patients prior to nursing care and research data collection. Patient confidentiality was fully maintained in accordance with the ethical principles of health research.

REFERENCES

- Abidin, N. M., & Wahyuningsih. (2020). Penerapan Strategi Pelaksanaan (Sp) 2 Pada Klien Skizofrenia Dengan Gangguan Persepsi Sensori : Halusinasi Pendengaran. *Jurnal Manajemen Asuhan Keperawatan*, 4(2), 133–140. <https://doi.org/10.33655/mak.v4i2.98>
- Azizah, A. N., & Ana Puji Astuti. (2022). Pengelolaan Gangguan Persepsi Sensori: Halusinasi Pendengaran Dengan Severe Depressive Episode With Psychotic Symptoms. *Journal of Holistics and Health Science*, 4(2), 261–269. <https://doi.org/10.35473/jhhs.v4i2.183>
- Ciufalo, J., Zaccone, S., Fatiga, G., & Caputo, G. B. (2024). Creative puppet therapy reduces hallucinations in patients diagnosed with schizophrenia: Preliminary findings. *Psychiatry Research*, 342, 116211. <https://doi.org/10.1016/j.psychres.2024.116211>
- Du, S. C., Li, C. Y., Lo, Y. Y., Hu, Y. H., Hsu, C. W., Cheng, C. Y., Chen, T. T., Hung, P. H., Lin, P. Y., & Chen, C. R. (2024). Effects of Visual Art Therapy on Positive Symptoms, Negative Symptoms, and Emotions in Individuals with Schizophrenia: A Systematic Review and Meta-Analysis. In *Healthcare (Switzerland)* (Vol. 12, Number 11). Multidisciplinary Digital Publishing Institute (MDPI). <https://doi.org/10.3390/healthcare12111156>
- Gina, A. sri, Rafiyah, I., & Widiанти, E. (2025). Penerapan Intervensi Menggambar Pada Pasien Skizofrenia Dengan Halusinasi Penglihatan Dan Pendengaran : Case Report. *SINERGI : Jurnal Riset Ilmiah*, 2(02), 730–742.
- Islami, I., Rasmawati, Adriana Amal, A., Patima, & Jayadi, A. E. (2024). Guided Imagery Menurunkan Tanda dan Gejala Pasien Skizofrenia dengan Waham. *Journal of Nursing Innovation (JNI)*, 2(3), 105–110.
- Larasaty, L., & Hargiana, G. (2019). Manfaat Bercakap-cakap dalam peer support pada klien dengan gangguan sensori persepsi : Halusinasi pendengaran. *Jurnal Kesehatan*, 8(1), 1–8.
- Mitchell, J., & Meehan, T. (2022). How art-as-therapy supports participants with a diagnosis of schizophrenia: A phenomenological lifeworld investigation. *Arts in Psychotherapy*, 80. <https://doi.org/10.1016/j.aip.2022.101917>
- Muthmainnah, M., Syisnawati, S., Rasmawati, R., Sutria, E., Hernah, S., Sakit, R., Daerah, K., Provinsi, D., & Abstrak, S. S. (2023). Terapi Menggambar Menurunkan Tanda dan Gejala Pasien Skizofrenia Dengan Halusinasi. In *Journal of Nursing Innovation (JNI)* (Vol. 2, Number 3).
- National Institute of Mental Health. (2024). *Scizophrenia*. National Institute of Mental Health.
- Oktaviani, S., Hasanah, U., & Utami, I. T. (2022). Penerapan terapi Menghardik Dan Menggambar pada Pasien Halusinasi Pendengaran. *Journal Cendikia Muda*, 2(3), 407–415.
- Putri, khoirunisa A. mudya, & Nadhira, yahdinil firda. (2024). Upaya Penanganan Pasien Gangguan Jiwa di yayasan Dhira Suman Trihoro. *Didaktik : Jurnal Ilmiah PGSD FKIP Universitas Mandiri*, 10, 272–281.
- Rasmawati, Nur, F., & Nurjannah, S. (2024). The Effect of Acceptance and Commitment Therapy Islamic Approach on Self-Acceptance of Patients with Mental Disorder. *Jurnal Berita Ilmu Keperawatan*, 17(1), 1–8.
- Shokiyah, N. N., & Syamsiar, S. (2021). Terapi Seni Untuk Mengatasi Gangguan Kecemasan Pada Lansia Akibat Pandemi Covid-19. *Acintya : Jurnal Penelitian Seni Budaya*, 13(2), 165–177. <https://doi.org/10.33153/acy.v13i2.4145>
- Sholt, M., & Gavron, T. (2023). Therapeutic qualities of clay-work in art therapy and psychotherapy: A review. *Journal Of The American Art Therapy Association*, 23(2), 66–72. <https://doi.org/10.1080/07421656.2006.10129647>

- Sianturi, R., Chaidar, M., Khasanah, widya nur, Lestari, P., Nikmah, indana zulva, & Purba, tri liharni. (2024). Aplikasi Penerapan Art therapy pada pasien halusinasi. In *MUPRESS*. MUPRESS.
- Stuart, G. W. (2022). *Prinsip dan Praktik Keperawatan Jiwa Stuart, Edisi Indonesia ke-2* (B. A. Keliat & J. Pasaribu, Eds.). Elsevier.
- Suleha, S., Rasmawati, R., Rasdiyanah, R., Sutria, E., & Palinrungi, K. (2025). Terapi Wudhu Menurunkan Tanda dan Gejala Risiko Perilaku Kekerasan Pada Pasien Skizofrenia. *Journal of Nursing Innovation (JNI)*, 4(1), 20–25.
- Untari, R. (2021). The effect of clay art therapy on depression in schizophrenic patients at dr. Arif zainuddin psychiatric hospital, surakarta, central java. *Developing a Global Pandemic Exit Strategy and Framework for Global Health Security*, 227. <https://doi.org/10.26911/AB.Medicine.ICPH.08.2021.30>
- Utas-Akhan, L., Avci, D., & Basak, I. (2024). Art Therapy as a Nursing Intervention for Individuals With Schizophrenia. *Journal of Psychosocial Nursing and Mental Health Services*, 62(5), 29–38. <https://doi.org/10.3928/02793695-20231025-02>
- World Health Organization. (2025). *Schizophrenia*. World Health Organization.
- Yulis, R., Pawenrusi, E. P., Amalia, N., & Rasmawati, R. (2023). Violent Behavior On Nurses In The Psychiatric Wards. *Jurnal Kesehatan*, 16(1), 19–27. <https://doi.org/10.24252/kesehatan.v16i1.37340>