



RESEARCH ARTICLE

Implementation of Gardening Activities on Changes in the Response of Hallucinatory Signs and Symptoms in Patients with Mental Disorders

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ARTICLE INFO	ABSTRACT
Received: May 22, 2024	Hallucinations are a form of perceptual and reality-oriented effects of impairment, characterized by a person reacting or evaluating stimuli without receiving them with the senses (Pratiwi & Rahmawati Arni, 2022). This study aims to find out the overview of the implementation of tree planting gardening activities in changing the signs and symptoms of hallucinations of psychiatric patients at the Dadi Regional Special Hospital, South Sulawesi Province. This study uses a descriptive case study design with observation and interview data collection techniques. The sample in this study, the researcher only took 2 (two) samples, namely the client as the subject of the case study, with a self-concept disorder: hallucinations. The data collected in this study consists of primary and secondary data. Primary data were obtained directly from case subjects through questionnaires, observations and interviews. Meanwhile, secondary data was obtained from taking patient biodata and medical records at the Dadi Hospital, South Sulawesi Province. The results of this study concluded that there was a change in signs and hallucinations after the patient did gardening activities for 3 days. Conclusion: After the implementation of gardening activities for 3 days, with a session once a day in the morning for 30 minutes each session, significant changes were seen in individual abilities and responses to the implementation of gardening activities and changes in signs and symptoms of hallucinations in patients with mental disorders.
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INTRODUCTION

Mental disorders are serious illnesses that can affect social, cognitive, and effective functioning. This makes people unable to live their daily lives. Mental illness is a perceptual, cognitive, and behavioral disorder that makes the sufferer unable to adapt to himself, others, and his environment. All groups, from children to adolescents, adults to the elderly, are vulnerable to mental illness (Istichomah & Fatihatur, 2019 and Syaputra et al., 2021).

According to the World Health Organization (WHO), 300 million people worldwide will suffer from mental disorders such as depression, bipolar disorder, and dementia by 2022, of which 24 million will suffer from schizophrenia. WHO estimates that around 450 million people

worldwide suffer from mental disorders, of which 135 million suffer from hallucinations (Widdyasih, 2019). It is estimated that 2-3% of the Indonesian population suffers from mental disorders, meaning that around 1-1.5 million people experience hallucinations (Aritonang, 2021). According to psychiatric hospitals throughout Indonesia, 70% of hallucination patients are admitted to psychiatric hospitals.

Based on the Basic Health Research of the Republic of Indonesia (2018), the prevalence of schizophrenia reaches 1.7 per 1,000 people or around 400,000 people. In North Sumatra Province, the prevalence of schizophrenia increased from 0.9 per 1,000 population to 1.4 per 1,000 people, Medan City 1.0 people.1000 people per 1000 people, Serdang Bedagai 1.2 per 1000 people increased to 2.5 per 1,000 people, Samosir to 1.4 per 1,000 population by 2.1%. 1000 people. (Efendi Putra Hulu, 2020).

In 2019, records from the Indonesian Ministry of Health showed that the most common psychiatric disorders occurred in the provinces of Bali and Yogyakarta, with a prevalence of 11.1% per 1000 households with ART with schizophrenia or psychosis, respectively. In Lampung Province, psychiatric disorders appear in 6.0% of 1000 households that have household members with schizophrenia or psychosis.

According to 2020 data from South Sulawesi Province, there are around 22,798 people diagnosed with emotional mental disorders. The details are 8,677 people with schizophrenia, 22,798 people with depression, 7,604 people with hallucinations, 2,705 people with withdrawal, 833 people with delusions, 1,771 people with low self-esteem, and 1,304 people with violent behavior. In addition, 2,235 people tried to get treatment in hospitals, with 79.2% of those admitted to mental hospitals. There were also 59 suicide attempts that led to treatment in mental hospitals, while another 1,766 people received medication and treatment

Based on data from the Kenanga Room of the Regional Special Hospital of South Sulawesi Province, in 2021 there were 85 psychiatric patients from 130 family cards (KK), and in 2022 there were 150 psychiatric patients. They include hallucinations (40 people), social isolation (25 people), risk of violent behavior (20 people), delusion (30 people), lack of self-care (12 people), low self-esteem (18 people), and organic mental disorders (5 people).

Hallucinations are a form of perceptual and reality-oriented effects of impairment, characterized by a person reacting or evaluating stimuli without receiving them with the senses (Pratiwi & Rahmawati Arni, 2022). There are different types of hallucinations, including auditory, visual, olfactory, tasting, and tactile hallucinations. Auditory hallucinations are stimulus disorders in which the patient hears the voice of a person talking about his mind or telling him to do something (Nurfiana, 2022).

Treatment of hallucinatory patients includes pharmacological and non-pharmacological treatment. pharmacology, namely drugs such as haloperidol, trifluoperazine and chlorpromazine. Non-pharmacological treatments can help patients master new coping skills and manage or avoid hallucinations (Wangi and Tjunduk, 2022).

Occupational therapy is a method of psychotherapy and support that facilitates recovery from hallucinations. One form of occupational therapy for people suffering from hallucinations involves activities of daily living. This activity aims to encourage and share the happiness of entertainment, as well as distract from hallucinations that are the result of visions that are not focused on the hallucinations (Mustopa et al. 2021).

This research is supported by the implementation of "Planting" Occupational Therapy in Psychiatric Patients at RSKD Dadi South Sulawesi Province. Respondents stated that they liked planting and watering plants. Respondents felt like they were in the environment in general

because the patient felt again how they felt before being in the hospital environment. Patients also admitted that the activities carried out made them excited because before the occupational therapy activities were carried out, patients only stayed in the ward (Ridfah et al., 2021).

Another study conducted by Zaldy in 2022 showed similar results, where farming therapy had a positive effect on ADL (Activities of Daily Living) independence in patients who experienced hallucinations. These findings conclude that implantable occupational therapy also has a significant impact in reducing hallucinations in patients who experience the condition. Patients who received occupational therapy for planting for 2 weeks with a frequency of 6 times per week showed a decrease in AHRS (Auditory Hallucinations Rating Scale) scores. In addition to implantable occupational therapy, the patient's healing or stability is also affected by ongoing treatment and rehabilitation.

METHOD

This study uses a descriptive case study design with data collection techniques using questionnaires, observations and interviews which aims to find out the overview of the implementation of tree planting gardening activities to changes in the response of hallucinations and symptoms of psychiatric patients at the Dadi Regional Special Hospital, South Sulawesi Province. In this study, the researcher only took 2 samples of patients with purposive hallucinations as case study subjects.

RESULT

Assessment of the patient's signs and symptoms before the first day of planting gardening activities

a. Subjek 1 (Nona. A)

Subject I Miss A. is 18 years old, Muslim, not working, female gender, unmarried status, last vocational education, domiciled in Pinrang Regency, South Sulawesi. From the results of the study, data on patients with visual hallucinations were obtained, patients said they saw white light, which occurred every day, the patient's response when hallucinations appeared, namely by saying seeing white light which was done when the light appeared, was to say going around you was not real.

b. Subjek 2 (Nona. N)

The subject is Miss N, 24 years old, Muslim, not working, female gender, unmarried status, last high school education, domiciled in Bone Regency, South Sulawesi. From the results of the study, data on auditory hallucinations patients were obtained, patients said that they often heard noises, the time of appearance was erratic, the patient's response when hallucinations appeared, namely by anger, which was done when hallucinations appeared, namely by covering the ears.

Observation of the implementation of gardening activities on the first day of tree planting

a. Miss A

On the first day before the implementation of the planting gardening activity at 08.00 WITA, Miss A did not know how and how to plant trees, but when Miss A carried out the gardening activity at 08.30 Miss A was able to recognize the tools to be used and was able to prepare the tools that would be used to plant with assistance. At 08.40 Miss A was able to plant chili seedlings. At 09.00 Miss A was able to tidy up the tools that had been used after gardening independently.

b. Miss N

On the first day before the implementation of tree planting gardening activities, at 08.00 WITA, Nona. N had never planted before, but at the time of implementation at 08.30 Miss N was able to recognize

the tools to be used and was able to prepare the tools and materials that would be used to plant with assistance. At 08.40 Miss N was able to plant chili. At 09.00 Miss N was able to tidy up the tools that had been used when doing planting therapy with the help.

Observation of the implementation of tree planting activities on the second day

a. Miss A.

On the second day of the implementation of tree planting activities, at 08.00 WITA, Miss A was able to recognize the tools and materials used and was able to prepare the tools and materials that would be used for tree planting activities independently. At 08.30 Miss N. was able to tidy up the tools that would be used during tree planting activities independently.

b. Miss N.

On the second day of the tree planting gardening activity, at 08.00 WITA, they were able to recognize the tools and materials to be used and were able to prepare the tools and materials used to plant independently. At 08.30 Miss N. was able to water the plants that had been planted independently. At 09.00 Miss N. was able to tidy up the tools that had been used during tree planting activities independently.

Observation of the implementation of tree planting activities on the third day

a. Miss A.

On the third day of the tree planting activity, at 08.00 WITA, Miss A. was able to recognize the tools and materials used and was able to prepare the tools and materials that would be used to plant independently. At 08.30 Miss A. was able to water the plants and take care of the plants that had been planted the previous day independently, then continued with the application of fertilizer independently. At 09.00 Miss A. was able to tidy up the tools and materials used during the therapy of planting independently.

b. Miss N.

On the third day of the tree planting activity, at 08.00 WITA, they were able to recognize the tools and materials used and were able to prepare the tools and materials that would be used for gardening independently. At 08.30 Miss N. was able to water the plants that had been planted the previous day independently then continued with the application of fertilizer independently. At 09.00 Miss N. was able to tidy up the tools and materials that had been used during the therapy of planting independently.

Interview results before the implementation of tree planting activities on the first day

a. Miss A.

The results of the interview before the tree planting gardening activity found that Miss A. had been treated in the ylang ylang ward for more than 2 weeks and was taken by her family to the hospital and had not been visited for a long time as revealed by the patient below:

'My family has taken me to the hospital for more than 2 weeks and has never come here to visit me'
Overall, Miss A. is satisfied with her. As revealed below: *"I'm satisfied with who I am now"*

Sometimes Miss A. feels like she sees Light. As revealed below: *"Sometimes I see a white light and it seems like the light follows me, especially when I'm alone."*

Miss A. felt that she could not do the work well that others did. As expressed below:

"I feel like I can't do the work that everyone else does"

Miss A. sometimes hallucinates that the white Light is very sacred. As it is revealed below: *"I sometimes hallucinate that the white Light is very sacred"*

b. Miss N.

The results of the interview before the tree-planting gardening activity, it was found that Miss N. had been treated in the ylang ward for 3 weeks and was taken by her family to the hospital and has not been visited since being treated as revealed below: *"My family took me to the hospital since three weeks ago and have never come here to visit me"* Overall Miss N. is satisfied with herself. As expressed below:

"I am satisfied with who I am now" Sometimes Miss N. feels that she often hallucinates hearing. As the following is revealed: *"sometimes I feel hallucinated about strange sounds"* Miss N. often feels a tantrum when she hears strange noises as described below: *"I often throw tantrums suddenly when I hear strange noises reappear"* Miss N. says When she goes berserk she often throws things as described below: *"sometimes I often throw things around me when I go berserk"*

The results of the interview after the tree planting activity on the second day.

a. Miss A.

Overall, Miss N. felt satisfied with herself. As expressed below: *"I feel very satisfied with my current self"* Miss A. feels much better than before. As expressed below: *"after participating in this activity I feel better than before"* Miss A. feels able to do the job as well as others. As expressed below: *"It turns out that I am able to do a job as well as others do, the proof is that I can plant"* Miss A. feels that she has diminished seeing the white light.

b. Miss N.

Overall, Miss N. felt satisfied with herself. As stated below: *"I feel very satisfied with who I am now"* Miss N. feels that she can control the voices that appear suddenly. As expressed below: *"I feel like I can control the sounds that appear all of a sudden."* (Miss N. (date, May 11, 2024) Miss N. feels that she can control herself when she goes berserk and does not throw things anymore. As stated below: *"I feel like I can control myself from throwing rampages and throwing things"*

Assessment of signs and symptoms after the third day of planting gardening activities.

Based on the nursing evaluation, the two respondents experienced a decrease in signs and symptoms of hallucinations with a score of different. The results of the observations made by the author on the third day on Miss A. was known that the respondent had a score decrease of 9 to 1 and in Miss N. it was known that the respondent had a score decrease from 10 to 5.

a. Miss A.

The researcher made observations and approached a patient named Miss A. to assess the signs and symptoms after the implementation of the enduring activity, it was found that the patient no longer expressed the feeling of seeing white light, shadows, pointing or pointing in a certain direction, and the patient felt safe.

b. Miss N.

The researcher made observations and approached a patient named Nona N. to assess signs and symptoms after being carried out implementation of gardening planting. It was found that the patient no longer expressed hearing a noisy sound, responded to a voice that invited to speak. feel safe.

DISCUSSION

The results of the study on the implementation of tree planting gardening activities on changes in sign and pulse responses in hallucinatory patients at RSKD Dadi, South Sulawesi Province, on May 10, 11, and 12, 2024 by looking at changes in signs and symptoms in both respondents.

Based on the results of observations and interviews before gardening activities to plant trees on the first research subject (Miss A.), it was found that the patients revealed seeing white light, unreal shadows, pointing their hands or pointing in a certain direction. In the second study subject (Miss N.), it was found that the patients expressed hearing noises, responding to sounds to invite them to talk, and often hearing things at certain times when alone. However, after being given music therapy, observation and interviews were carried out again, and the following results were obtained:

In the first study subject (Miss A.), the patient no longer revealed seeing white light, unreal shadows, pointing the hand in a certain direction, there was eye contact on the patient and the patient felt safe. In the second research subject (Miss N.), it was found that the patient no longer heard the noise sound, responded to the sound to talk, revealed that he often heard something at a certain time when he was alone, there was eye contact with the patient, and the patient felt safe.

The results in this study are in line with research conducted by Yuniar which stated that the results of interviews and observations in hallucinatory patients experienced a decrease in signs and symptoms of hallucinations (Yuniar, N et, al 2019). Because according to Yuniar, the planting activities carried out aim to minimize the patient's interaction with the unreal world, release thoughts, feelings, or emotions that have been influencing his unconscious behavior, motivate and provide joy, entertainment, and distract the patient from the hallucinations experienced so that the patient's mind is not focused on the hallucinations, especially in auditory hallucinations (Yuniar, N. et, al 2019).

Then a study conducted by Ilham said that there was an effect of batik occupational therapy on reducing the level of hallucinations (Ilham M, N et. al 2021). Research with similar results also occurred in a study conducted by Zaldy which resulted in the effect of farming therapy on ADL independence in hallucinatory patients (Zaldy, A et, al 2022). Based on the results of research conducted by researchers and the findings of previous studies, it can be concluded that there is an influence of planting gardening activities in controlling hallucinations levels in hallucinations patients, which is shown by reducing the level of hallucinations after being given planting activities for 3 days. In addition to providing gardening activities, planting healing or patient stability is also supported by continued treatment and rehabilitation.

CONCLUSION

After doing gardening activities for 3 days, with a session once a day in the morning for 30 minutes each session, the response of patients Miss A. and Miss N. to gardening activities increased and there were changes in signs and symptoms of hallucinations in patients with mental disorders.

REFERENCES

- Abdulah, A. Z., & Suerni, T. (2022). The Effect of Farming Therapy on the Level of ADL Independence of Schizophrenia Patients at Dr. Amino Gondohutomo Hospital, Central Java Province. *Journal of Psychiatric Nursing*, 5(4), 513–519. <https://journal.ppnijateng.org/index.php/jikj/article/view/1849>
- Aritonang, M. (2021). The Effectiveness of Stimulation Group Activity Therapy on

- the Ability to Control Auditory Hallucinations in Patients in the Cempaka Room at Prof. Dr. M. Ildrem Medan Hospital in 2019. *Jurkessutra: Surya Nusantara Health Journal*, 9(1).
- Basir, A. A., & Mudrika. (2023). The Effect of Health Education on Increasing Family Knowledge about the Care of Patients with Auditory Hallucination Perception Disorders. *Journal of Mitra Sehat*, 13(2), 484–489.
- Fitrianingrum, D., Yunitasari, P., & Suyatno. (2022). Efforts to Control the Signs and Symptoms of Hallucinations with Dhikr Psychoreligious Therapy for Auditory Hallucination Patients. *Proceedings of STIKES Bethesda*, 1(1), 588–596.
- Harkomah, I. (2019). Analysis of Family Experiences Treating Schizophrenia Patients with Post-Hospital Auditory Hallucination Problems. *Journal of Endurance*, 4(2), 282–292. <https://doi.org/10.22216/jen.v4i2.3844>
- Istichomah, & Fatihatur. (2019). The Effectiveness of Family Knowledge About Schizophrenia Toward Frequency of Recurrence of Schizophrenic Family Members At Poly Mental Grhasia Mental Hospital D. I. Yogyakarta. *Jurnal Kesehatan Samora Ilmu*, 10(2), 116–126. <https://stikes-yogyakarta.e-journal.id/JKSI/article/view/48/43>
- Keliat, B. A. (2019). *Psychiatric Nursing Care*. EGC.
- Ministry of Health RI. (2019). *Profile Health Indonesian 2018*. https://www.kemkes.go.id/app_asset/file_content_download/profil-indonesia-2018.pdf kesehatan-indonesia-2018.pdf
- Mustopa, R. F., Minarningtyas, A., & Nurillawaty, A. (2021). Effect of Occupational Therapy of Leisure Activities (Sweeping, Cleaning the Bed, Planting Plants and Drawing) on Auditory Hallucination Symptoms. *Journal of Nursing Echo*, 14(1), 40–49. <https://doi.org/10.33992/jgk.v14i1.1580>
- Nurhalimah. (2016). *Psychiatric Nursing Print Teaching Material Module*. Health HR Pusdik.
- Oktaviani, D. (2020). *Psychiatric Nursing Care for Mr. K with the problem of Sensory Perception Disorders: Auditory Hallucinations in the Rokan Room of Tampan Mental Hospital*. Riau Ministry of Health Polytechnic.
- Pardede, J. A., Siregar, L. M., & Hulu, E. P. (2020). The Effectiveness of Behaviour Therapy on the Risk of Violent Behavior in Schizophrenia Patients. *Journal of Mutiara Ners*, 3(1), 8–14. <http://e-journal.sari-mutiara.ac.id/index.php/NERS/article/view/1005>
- Pratiwi, A. D. I., & Rahmawati, A. N. (2022). A Case Study of the Application of Dhikr Therapy in Patients with Sensory Perception Disorders (Auditory Hallucinations) in the Arjuna room of Banyumas Hospital. *Journal of Social Sciences*, 1(6), 315–322. <https://www.bajangjournal.com/index.php/JISOS/article/view/2727>
- Purba, J. M., Wahyuni, S. E., Daulay, W., & Nasution, M. L. (2018). *Nursing care for clients with psychosocial problems and mental disorders*. USU Press.

- Ridfah, A., Wardiman, S. L., Rezkiyana, T., M., V. F. A., Azizah, W. N., & Hasianka, Z. (2021). Application of Occupational Therapy "Planting" in Psychiatric Patients of RSKD Dadi South Sulawesi Province. *Journal of Community Service Results*, 1(1), 1–5. <https://ojs.unm.ac.id/IPTEK/article/download/25623/12851>
- Basic Health Research of the Republic of Indonesia. (2018). *Basic Health Research of West Sumatra Province in 2018. pp. 1–478 in National Riskesdas Report 2018.*
- Santi, F. N. R., Nugroho, H. A., Soesanto, E., Aisah, S., & Hidayati, E. (2021). Hallucinolulus treatment, family support and the patient's ability to control hallucinations : a literature review. *Journal of Nursing and Public Health Cendekia Utama*, 10(3), 272–284. <https://doi.org/10.31596/jcu.v10i3.842>
- Stuart, G. W., Keliat, B., & Pasaribu, J. (2021). *Stuart Mental Health Nursing Principles and Practices, Indonesia edition 11.* Elsevier Health Sciences. <https://books.google.co.id/books?id=WamJEAAAQBAJ>
- Syahputra, E., Rochadi, K., Pardede, J. A., Nababan, D., & Linatarigan, F. (2021). Determinants of Increasing People with Mental Disorders (ODGJ) in Langsa City. *Journal of Healthcare Technology and Medicine*, 7(2), 1455–1469. <https://jurnal.uui.ac.id/index.php/JHTM/article/view/1712/911>
- Syisnawati, Musdalifah, & Maulinda. (2023). Analysis of Factors Related to the Relapse of Patients with Mental Disorders. *Journal of Psychiatric Nursing*, 11(1), 19–26. <https://jurnal.unimus.ac.id/index.php/IJK/article/view/10946>
- Widdyasih. (2019). *People with Mental Disorders*. <http://wordpress.com>
- World Health Organization (WHO). (2022). *Schizophrenia*. <https://www.who.int/news-room/fact-sheets/detail/schizophrenia>
- Yosep, I. (2020). *Psychiatric Nursing*. Refika Aditama.