

Psychosocial Intervention through Exercise and Gardening for People with Mental Disorders at UPTD Liposos Jember

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Abstract

Purpose: This study evaluates the effectiveness of psychosocial interventions through exercise and gardening for individuals with mental disorders at UPTD Liposos Jember, addressing the high prevalence of mental health issues in the region and the need for sustainable, non-pharmacological rehabilitation.

Method: A qualitative approach was employed from April to June 2025, involving rhythmic exercise and polybag gardening. Daily observations and documentation assessed behavioral changes, engagement, and social interaction among 35 participants.

Practical Applications: Findings support integrating these activities into Individual Care Plans and rehabilitation curricula, enhancing patient motivation, social skills, and emotional well-being. The program also serves as training for caregivers and a model for community-based mental health services.

Conclusion: Exercise and gardening significantly improved participants' physical, mental, and social well-being, with facilitator involvement being key to success. Integration into routine care is recommended for long-term impact.

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Introduction

Mental health is a condition in which individuals are able to develop physically, mentally, spiritually, and socially. A person with sound mental health is aware of their own abilities, able to cope with stress, work productively, and contribute to their community or society. This holistic definition emphasizes that mental health is not merely the absence of illness, but the presence of well-being across multiple dimensions of life. When an individual's mental health is disrupted, they may experience significant behavioral changes that can lead to suffering and hinder their ability to perform their roles as members of the community or society. These disruptions can manifest in various forms, ranging from mild emotional distress to severe psychiatric conditions. Individuals experiencing such disturbances in mental health are commonly referred to as people with mental disorders (Undang-Undang Republik Indonesia Nomor 17 Tahun 2023 Tentang Kesehatan, 2023).

The prevalence of people with mental disorders in Indonesia is quite high, with approximately 1 in 5 people, or 20% of Indonesia's 250 million population, experiencing mental health disorders (Rokom, 2021). This statistic underscores the urgent need for comprehensive mental health strategies at both national and regional levels. Regional Health Profile data also indicate that there are 69,009 people with severe mental disorders in East Java, with 4,671 in Jember Regency (Dinas Kesehatan Kabupaten Jember, 2021; Dinas Kesehatan Provinsi Jawa Timur, 2023). These figures reflect not only the widespread nature of mental health issues but also the importance of localized data in shaping targeted interventions. The high prevalence of people with mental disorders requires mental health efforts that are provided proactively, integrated, comprehensively, and continuously throughout the human life cycle. These efforts require the role of the central government, local governments, medical personnel, health workers, the community, and especially the family (Undang-Undang Republik Indonesia Nomor 17 Tahun 2023 Tentang Kesehatan, 2023). Collaboration among these stakeholders is essential to ensure that mental health services are accessible, equitable, and culturally appropriate.

However, these efforts face several challenges, such as the persistence of stigma and discrimination from the surrounding community, lack of understanding and mental health education, and difficulties in creating an inclusive and supportive environment for people with mental disorders. Stigma remains one of the most significant barriers to mental health care, often leading to social exclusion and reluctance to seek help. Educational initiatives and community engagement are crucial to dismantling these barriers and fostering empathy and acceptance.

One inclusive and supportive environment for aiding the care and rehabilitation of people with mental disorders is UPTD Liposos Jember. UPTD Liposos Jember serves as a temporary shelter for people with mental disorders to receive treatment and rehabilitation until they achieve social independence. The forms of care and rehabilitation offered include psychosocial motivation and diagnosis, nursing and caregiving, vocational training and entrepreneurship development, spiritual guidance, physical training, social guidance and psychosocial counseling, accessibility services, social assistance and support, resocialization guidance, follow-up guidance, and/or referral services (Undang-Undang Republik Indonesia Nomor 17 Tahun 2023 Tentang Kesehatan, 2023). These multifaceted services aim to address the diverse needs of individuals, promoting recovery and reintegration into society. The limited number of staff responsible for caring for people with mental disorders has resulted in treatment activities that are relatively monotonous or lacking in variation (Safitri, 2022). The only regular activity at UPTD Liposos Jember is morning exercise held every Friday (UPTD Liposos Jember, 2023). While physical activity is beneficial, the lack of variety in programming may hinder engagement and progress. These limited activities can lead to boredom, loss of motivation, and even deterioration of their mental condition. An ideal rehabilitation program for people with mental disorders should not only involve pharmacological therapy but also emphasize non-pharmacological therapies to help prepare them for reintegration into society.

Non-pharmacological therapy refers to treatment or care efforts that are carried out without the use of medication. This therapy is essential in improving the well-being of people with mental disorders as a complement to pharmacological therapy. This is because non-pharmacological therapy focuses on bodily functions and manifestations, thereby fostering more positive thinking and generating beneficial effects on the body (Berlian, et.al., 2024). Such therapies include art therapy, exercise, relaxation, social interaction, and gardening. These activities can stimulate the social abilities of people with mental disorders, such as interacting with others, making friends with volunteers, and increasing their self-confidence (Hendrawati, et. al., 2022). Moreover, these therapies can be tailored to individual preferences and capabilities, making them more engaging and effective. Furthermore, non-pharmacological therapy can often be performed independently and are generally easy to implement, depending on the type of therapy applied. According to the World Health Organization (2021), mental health is not merely the absence of mental disorders, but also the ability to live productively and harmoniously within one's environment. This perspective reinforces the importance of holistic approaches that nurture both internal resilience and external social connections.

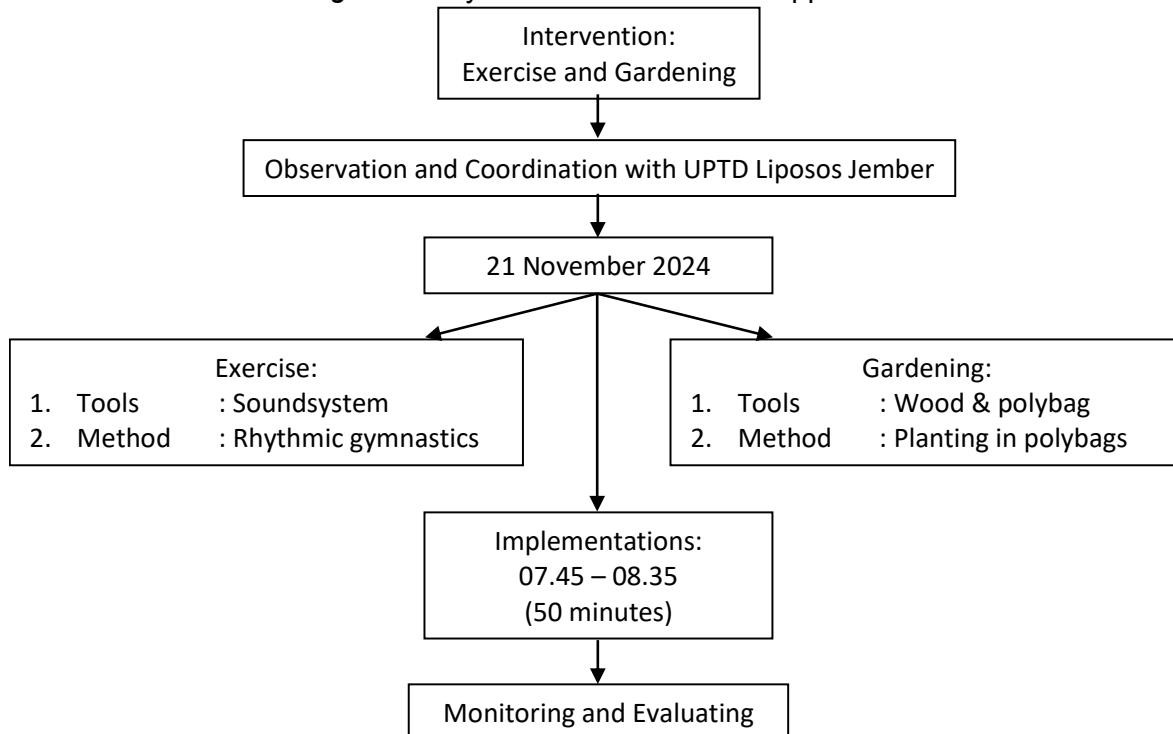
Stability in physical, mental, and social health must be maintained in order to achieve overall well-being. To maintain this balance, people with mental health problems, especially people with mental disorders, need psychosocial interventions. Psychosocial intervention refers to actions that utilize psychological or social activities aimed at producing changes in a person's psychological, social, biological, or functional conditions, thereby improving their health and quality of life (Institute of Medicine, 2015). These interventions can range from structured therapy sessions to community-based activities that promote inclusion and empowerment. Furthermore, psychosocial interventions have been shown to serve as a catalyst for cognitive improvement in ODGJ, reduce negative symptoms, decrease relapse rates, and enhance self-esteem (Efendi & Nugraha, 2019). The evidence supporting these interventions highlights their critical role in long-term recovery and social reintegration.

Therefore, the Kuping Emas Study Group (a community of public health promotion activists) organized an event themed National Health Day as a form of psychosocial intervention designed to improve physical and mental health while strengthening the social engagement of people with mental disorders. The participants involved in this activity were people with mental disorders who had regained the ability to interact with their surrounding environment. This event included physical exercise and plant cultivation activities as intervention media. These activities were chosen for their therapeutic value and accessibility, allowing participants to engage in meaningful tasks that promote self-expression and connection. The purpose of this intervention was to raise awareness of the importance of holistic health, foster positive interactions within the community, and enhance the self-confidence and independence of people with mental disorders as part of a comprehensive community-based approach. By integrating mental health care into broader public health initiatives, such programs can help normalize mental health challenges and build more inclusive communities.

Method

The method used in this community service activity employed a psychosocial intervention approach, carried out through two main activities: exercise and gardening. These activities were selected based on their proven effectiveness in enhancing physical, emotional, and social well-being among individuals with mental disorders. The intervention was conducted at UPTD Liposos Jember over a three-month period, from April to June 2025, aligning with the observance of National Health Day to emphasize the importance of holistic health.

Figure 1. Psychosocial Intervention Approach



Source: Author's Work, 2025

The target population consisted of 35 residents of UPTD Liposos Jember. Inclusion criteria were carefully defined to ensure participant safety and optimal engagement. Participants were required to be in a clinically stable condition (non-acute phase), capable of following simple instructions, and had to receive approval from the facility management. This ensured that individuals were mentally and physically prepared to participate in the activities. Conversely, residents in the acute phase, those with physical limitations, or those lacking approval from healthcare providers or family members were excluded to prevent potential risks and ensure the effectiveness of the intervention.

The exercise activity was conducted using rhythmic movements accompanied by music played through a sound system, creating a lively and engaging atmosphere. This method was chosen to stimulate both motor coordination and emotional expression, while also promoting group cohesion. The gardening activity utilized polybag planting techniques, involving simple tools such as sticks, soil, and polybags, which were accessible and safe for participants. These activities were designed to be therapeutic, interactive, and easy to implement, allowing participants to experience a sense of accomplishment and connection with nature.

Each session lasted approximately 50 minutes, from 07:45 to 08:35 WIB, a time chosen to avoid excessive heat and ensure participant comfort. The implementation was supervised by a multidisciplinary team, including mental health nurses, healthcare staff from UPTD Liposos Jember, lecturers, and members of the Kuping Emas Study Group from the Faculty of Public Health, University of Jember. Mental health nurses played a critical role in monitoring psychological conditions, while healthcare staff ensured physical safety and adherence to health protocols.

To maintain safety and hygiene, strict protocols were enforced, including the use of masks and gloves, restrictions on sharp tools, and schedule adjustments in response to weather conditions. These measures were essential to prevent injury, agitation, or discomfort during outdoor activities. Monitoring and evaluation were conducted through direct observation, focusing on participants' levels of engagement, behavioral responses, challenges encountered, and suggestions for future improvements. Observational data were documented daily to track progress and identify patterns in social interaction, emotional expression, and physical participation. This qualitative approach allowed facilitators to adapt the intervention dynamically and ensure that it met the evolving needs of the participants.

Result

This community service activity was carried out by students from the Kuping Emas Study Group of the Faculty of Public Health, University of Jember, with the active involvement of clients from UPTD Liposos Jember. The activity was also supported by lecturers from the Faculty of Public Health, University of Jember, and staff from UPTD Liposos Jember. This collaborative effort ensured a multidisciplinary approach, combining academic insight, clinical supervision, and community engagement.

Figure 2. Implementation of Rhythmic Gymnastics



Source: Private Documentation, 2024

Through the implementation of monthly exercise sessions and gardening activities held to commemorate National Health Day, there was a noticeable improvement in the physical and psychosocial health of the participating clients. These improvements were observed not only in terms of physical fitness but also in emotional expression, social interaction, and behavioral adaptation. The execution of the exercise and gardening activities received very positive responses from the clients. Active participation was evident from their enthusiasm in taking part in each session, which reflected a growing sense of motivation and engagement.

During the exercise activity, the participants eagerly followed the movements guided by the facilitator, although some initially required more intensive assistance to understand the instructions. This active participation was shown by their dedication in following each exercise movement, which not only enhanced their physical activity but also provided cognitive and motor stimulation. The rhythmic nature of the exercises, combined with music, created a stimulating and enjoyable environment that encouraged movement and coordination.

Meanwhile, the gardening activity offered a different yet equally effective experience in capturing participants' interest. This activity allowed clients to directly interact with nature, care for plants, and experience the tangible results of their efforts. Participation in gardening was also supported by a more relaxed and enjoyable atmosphere, which encouraged greater involvement from the participants. Some clients even showed initiative in independently completing gardening tasks, indicating an increased sense of responsibility and concern for their surroundings. This activity not only enhanced their fine motor skills but also fostered a sense of responsibility and togetherness. The therapeutic aspect of gardening was evident in the way participants engaged with the soil, tools, and plants, which helped reduce stress and promote mindfulness.

Figure 3. Implementation of Gardening



Source: Private Documentation, 2024

In addition to the positive responses toward the activities, significant behavioral changes were also observed among the participants during and after the intervention. First, enthusiasm for the exercise and gardening activities gradually increased. Initially, some people with mental disorders appeared hesitant and unenthusiastic, but over time, they began to show greater excitement and motivation, with some even actively encouraging their peers to join. This shift in attitude demonstrated the potential of psychosocial interventions to foster intrinsic motivation and peer support.

Furthermore, there was an increase in social interaction among participants, both verbally and non-verbally. They became more open and actively communicated with fellow participants and facilitators. This development was crucial in reducing social isolation and promoting a sense of belonging. More positive emotional expressions were also observed, with participants smiling and laughing more frequently, and showing positive gestures such as thumbs-up to express satisfaction and happiness after the activities. This indicates an improvement in psychological well-being, which can be linked to the benefits of physical

activity and horticultural therapy.

Figure 4. Participant Interaction



Source: Private Documentation, 2024

Lastly, increased discipline in following the schedule and activity sequences was evident through punctuality and attentiveness in carrying out instructions during the exercise and gardening sessions. This behavioral change suggested improved cognitive functioning and a greater sense of routine, which are essential for rehabilitation and reintegration into society.

Figure 5. Participants' Expressions and Emotions



Source: Private Documentation, 2024

The psychosocial intervention activities involving exercise and gardening conducted at UPTD Liposos Jember demonstrated a positive qualitative impact on the psychological well-being of people with mental disorders. Active participation in morning exercise helped individuals become fitter, more relaxed, and display calmer facial expressions. Meanwhile, the gardening activities not only fostered a sense of responsibility and structure but also ignited enthusiasm and enhanced social interaction among the residents. Observations revealed that the participants became more active in daily routines, more cheerful during interactions, and more cooperative in following staff instructions. Overall, the program succeeded in creating a more supportive and enjoyable environment, which contributed to the psychological recovery process of people with mental disorders at UPTD Liposos Jember.

Figure 6. Caregiver Involvement



Source: Private Documentation, 2024

During the exercise sessions, caregivers did not merely act as supervisors, but also provided motivational support by directly inviting and guiding the participants to enthusiastically follow the movements. Their presence created a safe and pleasant atmosphere and strengthened the emotional bond between the participants and their companions. In the gardening activities, caregivers actively helped prepare the site, such as cleaning the garden area, loosening the soil, and setting up gardening tools. This direct involvement not only facilitated the activity but also served as a role model that motivated people with mental disorders to participate more seriously and consistently in gardening. The presence of supportive caregivers significantly increased the participation and comfort of people with mental disorders during the intervention program.

One of the challenges in this activity was the intense heat of the sun, especially during outdoor sessions. The hot weather made the participants tire quickly and lose focus, which sometimes necessitated shorter or rescheduled sessions to ensure a comfortable and safe environment. Despite this, the overall implementation remained effective due to adaptive scheduling and the commitment of facilitators to maintain participant well-being.

Discussion

The exercise and gardening activities conducted in commemoration of National Health Day by the Community for Public Health Promotion (Kuping Emas) of the Faculty of Public Health, University of Jember, targeting people with mental disorders, are part of promotive and preventive mental health efforts. Theoretically, implementing exercise and gardening activities for people with mental disorders is closely related to the promotive–preventive approach within the healthy paradigm, especially for vulnerable groups. This paradigm focuses not only on treatment, but also on strategies for maintaining health through promotive and preventive activities (Notoatmodjo, 2010).

The community service activity of exercise, as a form of physical activity, plays an important role in improving physiological function while supporting emotional stability. Research by Wu et al. (2020) shows that regular exercise can reduce symptoms of depression and improve cognitive function in patients with severe mental illness, such as schizophrenia. Physical activity stimulates the release of endorphins and other neurotransmitters involved in emotional regulation and reduces stress hormones like cortisol. Moreover, group exercise provides valuable social stimulation for people with mental disorders by encouraging interpersonal interactions, reducing feelings of isolation, and helping to rebuild self-confidence (Wu et al., 2020).

Physical activity has been proven to provide significant benefits to mental health, especially for people with mental disorders. Studies show that physical activities, such as exercise therapy, can reduce symptoms of anxiety and depression in patients with mental illness (Cahyani & Ridfah, 2022). In this context, physical activity not only improves physical fitness but also contributes to enhanced psychological well-being. For instance, studies indicate that exercise therapy for mental health patients helps optimize both motor and mental functions, leading to improvements in both physical and psychological conditions (Cahyani & Ridfah, 2022). This demonstrates that involving patients in activities requiring physical movement can help them experience psychological benefits, such as improved mood and reduced distress.

Physical activity also provides opportunities for patients to engage in social interaction, which is crucial for mental health. Social interaction can create emotional support and reduce the sense of alienation often experienced by people with mental disorders (Rosyanti & Hadi, 2021). Through participation in groups or classes, patients can feel more connected to others, which in turn helps reduce stigma and enhance their self-esteem (Pribadi & Sumartono, 2022). Support from the community can strengthen their commitment to participate in treatment and manage their overall health.

Participation in physical activity can stimulate the production of neurotransmitters such as endorphins and serotonin, which are known to play a major role in mood regulation (Nurhijriah et al., 2022). Therefore, healthcare providers should consider integrating physical activities into care programs to support patients with mental disorders. These activities can serve not only as tools for mental rehabilitation but also strengthen patients' resilience in facing daily life challenges (Tasari et al., 2023). Thus, the development of community-based physical intervention programs involving patients with mental disorders is highly recommended to improve their quality of life.

Another activity, gardening, represents a form of horticultural therapy. Horticultural therapy involves using gardening activities as a therapeutic intervention to improve mental and emotional health. It has been shown to reduce symptoms of anxiety and aggression in people with mental disorders, enhance positive affect, and provide calming effects. Additionally, this therapy contributes to the development of fine motor skills, a sense of responsibility, and the strengthening of daily routines, all of which support comprehensive psychiatric rehabilitation (Zhang et al., 2023).

Socioculturally, this activity can also be viewed as a form of social integration that reduces stigma toward people with mental disorders. Activities carried out together with staff, students, and shelter residents provide equal interaction spaces, strengthen inclusivity, and demonstrate that people with mental disorders are capable of actively participating in productive activities. This initiative aligns with WHO (2021) policies on community-based mental health services, which emphasize the importance of participatory, community-based approaches in sustainable mental health care.

Horticultural therapy plays a significant role in improving the mental health of patients with mental disorders. Gardening activities integrated into this therapy provide various psychological and physiological benefits through direct interaction with nature. Research shows that participating in horticultural activities can enhance mood, reduce stress, and build self-confidence (Chu et al., 2021; Shen et al., 2022). Contact with plants and the plant-growing process can foster feelings of hope and achievement, which are important for individual mental well-being, especially for those facing emotional challenges (Chu et al., 2021; Jueng & Chen, 2022).

Furthermore, horticultural therapy has also been proven to aid in the development of social skills and the reduction of anxiety and depression symptoms. One study found that participation in horticultural therapy programs can improve individuals' ability to engage socially and build social networks within groups (Gerdés et al., 2022; Supiatun et al., 2021). In the context of patients with mental disorders, improved social interaction is essential in reducing feelings of alienation and enhancing overall quality of life (Mottershead & Ghisoni, 2021). These programs are often designed to provide supportive environments where patients can work together to create and maintain gardens, fostering a sense of community and purpose (Braña III et al., 2023; Subagyo & Wahyuningsih, 2024).

Other studies have also shown that horticultural therapy contributes not only to mental health improvement but also to physical rehabilitation by enhancing motor coordination and physical endurance (Y. Lin et al., 2021; Mottershead & Ghisoni, 2021). When patients engage in enjoyable and purposeful physical activities, they experience improvements in cognitive abilities and mobility, which further support better mental health (Supiatun et al., 2021). Thus, horticultural therapy is a valuable non-pharmacological approach in mental health management, providing a practical and effective alternative for enhancing the quality of life for patients with mental disorders (P. Lin et al., 2022; Scott et al., 2022).

Nevertheless, certain clinical limitations are inevitable in implementing such programs. Potential risks such as injury, agitation during activities, and dependence on caregiver motivation may arise. In this program, these risks were minimized through warming-up sessions at the beginning of exercise activities to reduce the likelihood of injury, and conducting group exercises to maintain participants' engagement and reduce agitation. Regarding potential dependency on caregiver motivation, this activity was designed as a continuation of previous, more informal activities conducted by caregivers, but packaged in a more structured and engaging format to encourage autonomous participation over time.

Conclusion

The regular implementation of exercise and gardening activities at UPTD Liposos Jember has proven effective as a psychosocial intervention strategy to enhance the physical, mental, and social health of individuals with mental disorders. These activities not only provided therapeutic benefits but also served as a medium for social reintegration, emotional expression, and skill development. The structured nature of the interventions, combined with the supportive environment created by caregivers and facilitators, contributed significantly to the success of the program.

Positive outcomes were observed in increased participation, motivation, motor and cognitive skills, as well as the quality of social interactions, all of which were supported by the active involvement of facilitators. The presence of mental health nurses, healthcare staff, and volunteers ensured that participants received appropriate guidance, emotional support, and safety throughout the activities. This multidisciplinary collaboration played a crucial role in fostering a sense of belonging and trust among the participants, which is essential for their recovery and reintegration into society.

These activities hold potential for integration into the Individual Care Plan, supported by training for healthcare providers and multidisciplinary collaboration to measure and evaluate their long-term and sustainable impact. By embedding these interventions into routine care, mental health facilities can offer more holistic and person-centered rehabilitation programs. Furthermore, the inclusion of non-pharmacological therapies such as exercise and gardening can complement medical treatment, reduce dependency on medication, and promote self-management among individuals with mental disorders.

Furthermore, they may serve as a recommendation for the development of Standard Operating Procedures (SOPs) and rehabilitation curricula, and as a viable option for program implementation in other mental health facilities to strengthen community-based service systems. The success of this initiative at UPTD Liposos Jember demonstrates the feasibility and effectiveness of community-based psychosocial interventions. It also highlights the importance of creating inclusive environments where individuals with mental disorders can actively participate, contribute, and thrive.

In conclusion, the integration of exercise and gardening as psychosocial interventions offers a promising approach to improving the quality of life for people with mental disorders. These activities not only address physical and psychological needs but also foster social engagement, independence, and dignity. With continued support, evaluation, and replication in other settings, such interventions can become a cornerstone of mental health rehabilitation in Indonesia and beyond.

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