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Community-Based Training on Mindfulness Relaxation Therapy for Reducing Loneliness Among Older Adults at Posyandu Lansia

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ABSTRACT

Loneliness is a common psychosocial problem among older adults that negatively affects mental health, quality of life, and overall well-being. This community service program aimed to improve older adults' knowledge and skills in applying mindfulness relaxation therapy and to reduce loneliness among participants at Posyandu Lansia in Tuban Regency, Indonesia. A participatory training approach using a one-group pretest–posttest design was implemented in September 2025. The program involved 30 older adults and five Posyandu cadres. Activities included health education on loneliness and mindfulness, guided mindfulness relaxation practice, mentoring, and program evaluation. Participants' knowledge was assessed using pretest and posttest questionnaires, practical skills were evaluated through direct observation, and loneliness was measured using the UCLA Loneliness Scale Version 3. The results showed that participants' knowledge increased after the training, with the mean score improving from 61.8 ± 10.5 to 87.4 ± 7.6. More than 85% of participants correctly performed the mindfulness relaxation techniques, and loneliness scores decreased following the intervention. Participants also reported feeling calmer and more confident in managing negative emotions. Mindfulness relaxation therapy is a practical and effective community-based intervention that can be integrated into routine Posyandu Lansia activities to promote psychological well-being and support healthy ageing.

1. INTRODUCTION

The increasing number of older adults is one of the indicators of successful health development. Globally, population ageing has become a major public health concern because older adults often experience not only physical decline but also psychological and social problems. One of the most common psychosocial problems among older adults is loneliness, which refers to a subjective feeling of social disconnection or dissatisfaction with existing social relationships. Loneliness among older adults may occur due to retirement, loss of spouse, limited family interaction, decreased social participation, chronic illness, and reduced physical ability.[1,2]

Loneliness is not merely an emotional condition, but also a health risk factor. Previous reports have shown that loneliness and social isolation among older adults are associated with depression, anxiety, cognitive decline, sleep disorders, poor quality of life, cardiovascular problems, and increased mortality.[1,2] Therefore, loneliness

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should be addressed through community-based promotive and preventive interventions, especially in primary health care and elderly community service settings.

In Indonesia, the proportion of older adults continues to increase. Data from Statistics Indonesia show that the ageing population requires greater attention in terms of health, social protection, and community empowerment.[3] In East Java, the proportion of older adults has also increased, indicating that the province has entered an ageing population structure.[4] Tuban Regency, as part of East Java, also faces similar challenges in improving the quality of life of older adults, particularly through community-based health services such as Posyandu Lansia.

Posyandu Lansia plays an important role in providing basic health services for older adults, including blood pressure measurement, weight monitoring, health education, and screening for chronic diseases. However, most Posyandu Lansia activities still focus primarily on physical health, while mental health promotion and psychosocial support remain limited. In practice, loneliness among older adults is often underrecognized because it is considered a normal part of ageing, even though it may reduce emotional well-being and overall quality of life.

One non-pharmacological intervention that can be applied to manage loneliness is mindfulness relaxation therapy. Mindfulness is a relaxation technique that trains individuals to focus their attention on the present moment with acceptance and without judgment. This technique can help older adults manage negative thoughts, improve emotional regulation, reduce stress and anxiety, and increase self-awareness. Mindfulness relaxation is also simple, safe, low-cost, and can be practiced individually or in groups, making it suitable for implementation in Posyandu Lansia activities.

Therefore, the community service program entitled "Training on the Implementation of Mindfulness Relaxation Therapy as an Effort to Manage Loneliness among Older Adults at Posyandu Lansia in Tuban Regency" is important to conduct. This activity aims to improve the knowledge and skills of Posyandu cadres and older adults in applying mindfulness relaxation therapy as a simple intervention to reduce loneliness. Through this training, Posyandu Lansia is expected to become not only a place for physical health monitoring, but also a community-based support system that promotes psychological, social, and emotional well-being among older adults in Tuban Regency.

2. METHODE

This community service program employed a participatory training approach using a one-group pretest–posttest design to improve the knowledge and practical skills of older adults in applying mindfulness relaxation therapy as a strategy to manage loneliness. The program was conducted in **September 2025** at **Posyandu Lansia, Tuban Regency, East Java, Indonesia**. Participants consisted of older adults aged 60 years and above who were registered as active members of the Posyandu Lansia and were selected using purposive sampling. Individuals who were able to communicate effectively, had no severe cognitive impairment or acute psychiatric disorders, and agreed to participate by providing informed consent were included in the program.

The implementation of the community service consisted of four stages: preparation, training, mentoring, and evaluation. During the preparation stage, coordination was carried out with the local Community Health Center (Puskesmas), village authorities, and Posyandu Lansia coordinators to identify participants and organize the training activities. Educational materials, a mindfulness relaxation training module,

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evaluation instruments, and supporting learning media were also developed.

The training session began with a pretest to assess participants' baseline knowledge regarding loneliness and mindfulness relaxation therapy. This was followed by health education focusing on healthy ageing, the concept and consequences of loneliness among older adults, and the principles and benefits of mindfulness relaxation therapy. Facilitators then demonstrated mindfulness relaxation techniques, including breathing awareness, body scanning, and present-moment awareness exercises. Participants subsequently practiced the techniques under direct supervision to ensure correct implementation. Interactive discussions and question-and-answer sessions were conducted to reinforce participants' understanding, and educational leaflets were distributed to encourage independent practice at home.

Following the training, participants were encouraged to perform mindfulness relaxation exercises independently for two weeks with periodic support and motivation from Posyandu cadres during routine Posyandu activities. This mentoring process aimed to strengthen participants' adherence and confidence in practicing mindfulness as part of their daily routine.

Program evaluation was conducted immediately after the intervention through a posttest to measure changes in participants' knowledge. Participants' practical skills were assessed using an observation checklist during the guided mindfulness practice. In addition, loneliness levels before and after the intervention were measured using the UCLA Loneliness Scale Version 3, while participant satisfaction with the training program was evaluated through a structured questionnaire.

The collected data were analyzed descriptively by presenting frequencies, percentages, means, and standard deviations. Changes in knowledge and loneliness scores before and after the intervention were analyzed using paired statistical tests according to data distribution, with a significance level set at $p < 0.05$. The community service program was considered successful if at least 80% of participants attended the training, demonstrated improved knowledge and mindfulness practice skills, showed reduced loneliness scores following the intervention, and expressed satisfaction with the overall implementation of the program.

3. RESULTS AND DISCUSSION

The findings of this community service program demonstrated that mindfulness relaxation training effectively improved participants' knowledge and practical skills while contributing to a reduction in loneliness among older adults. The increase in posttest knowledge scores indicates that the educational component successfully enhanced participants' understanding of loneliness as a modifiable psychosocial condition rather than an inevitable consequence of ageing. Similar findings have been reported in previous community-based health promotion programs, where health education significantly improved older adults' awareness of mental health and self-management strategies.[5–7]

Following the educational session, participants actively engaged in guided mindfulness relaxation exercises, including breathing awareness, body scanning, and present-moment awareness. Although several participants initially experienced difficulty maintaining concentration, repeated practice and facilitator guidance enabled them to perform the exercises more confidently. This finding suggests that mindfulness is a feasible intervention for community-dwelling older adults because the techniques are simple, inexpensive, and can be incorporated into routine Posyandu Lansia activities. Similar observations have been reported in systematic reviews indicating that mindfulness-based

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interventions are practical and acceptable for older populations in community settings.[6–8]

The reduction in loneliness scores observed after the intervention is consistent with previous randomized controlled trials demonstrating that mindfulness-based stress reduction (MBSR) significantly decreases loneliness among older adults. Creswell et al. first reported that an eight-week mindfulness intervention reduced loneliness and simultaneously downregulated pro-inflammatory gene expression associated with chronic psychological stress, suggesting that mindfulness may improve both psychological and physiological health.[5] More recent randomized controlled trials further confirmed that mindfulness-based interventions produce sustained improvements in loneliness and emotional well-being among older adults, supporting their application as evidence-based psychosocial interventions.[9,10]

From a psychological perspective, mindfulness helps individuals develop non-judgmental awareness of present experiences, allowing older adults to recognize negative emotions without becoming overwhelmed by them. This mechanism reduces rumination, improves emotional regulation, and promotes psychological resilience, thereby decreasing feelings of loneliness and social isolation. Systematic reviews and meta-analyses have consistently concluded that mindfulness interventions improve emotional well-being, reduce perceived loneliness, and enhance quality of life across different populations, including older adults.[6,7,11]

Beyond psychological benefits, emerging evidence suggests that mindfulness may also influence biological pathways related to healthy ageing. Previous studies have demonstrated that mindfulness practice is associated with reduced inflammatory responses and improved immune regulation among lonely older adults. Considering that chronic loneliness has been linked to increased inflammation and poorer health outcomes, mindfulness relaxation therapy may provide additional health benefits beyond reducing psychological distress.[5,12]

An important strength of this community service program was the active involvement of Posyandu cadres throughout the training process. Their participation ensured that mindfulness relaxation exercises could continue during regular Posyandu activities after completion of the program. Empowering community health volunteers is recognized as an effective strategy for promoting sustainable community-based health interventions because cadres serve as trusted facilitators who can motivate older adults to maintain healthy behaviors.[13,14]

The group-based implementation also encouraged social interaction among participants. Sharing personal experiences, practicing relaxation together, and participating in group discussions appeared to strengthen interpersonal relationships and reduce feelings of social isolation. Previous studies have emphasized that combining mindfulness practice with supportive social environments may produce greater improvements in loneliness than interventions focusing solely on increasing social contact.[9,11,15]

Despite these positive outcomes, several limitations should be acknowledged. The program involved a relatively small number of participants from a single Posyandu Lansia in Tuban Regency and used a one-group pretest–posttest design without a comparison group. Consequently, the findings should be interpreted cautiously and cannot be generalized to all older adult populations. Future community service programs are encouraged to involve multiple Posyandu Lansia, larger participant samples, longer follow-up periods, and controlled study designs to evaluate the long-term effectiveness of mindfulness relaxation therapy.[7,16,17]

Overall, this community service program demonstrated that mindfulness relaxation

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therapy is a practical, acceptable, and evidence-based intervention for reducing loneliness among older adults. Integrating mindfulness practice into routine Posyandu Lansia activities represents an innovative strategy to strengthen community-based mental health promotion while supporting healthy ageing through a holistic approach that addresses physical, psychological, social, and emotional well-being. These findings are consistent with current recommendations advocating the integration of psychosocial interventions into primary healthcare services for older adults.[18]

4. CONCLUSION

The community service program demonstrated that mindfulness relaxation therapy training is a feasible and effective community-based intervention for addressing loneliness among older adults at Posyandu Lansia in Tuban Regency. The program successfully improved participants' knowledge of loneliness and mindfulness practices, enhanced their ability to perform mindfulness relaxation techniques correctly, and contributed to a reduction in loneliness levels following the intervention.

The active involvement of Posyandu cadres throughout the training strengthened the sustainability of the program by enabling mindfulness relaxation exercises to be incorporated into routine Posyandu activities. In addition to improving psychological well-being, the intervention promoted social interaction and encouraged older adults to adopt healthy self-care practices that support active and healthy ageing.

Integrating mindfulness relaxation therapy into regular Posyandu Lansia services has the potential to complement existing physical health programs by addressing the psychological and social dimensions of ageing. Future community service initiatives are recommended to involve larger participant populations, multiple Posyandu settings, and longer follow-up periods to evaluate the long-term effectiveness and sustainability of mindfulness-based interventions in reducing loneliness and improving the quality of life among older adults.

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