Effectiveness of Art Therapy on Emotional Expression and Self-Worth in Women with Depression

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Article Info	ABSTRACT
Article type: *Original Research* **How to cite this article:** Conti, M., & Kovács, E. (2024). Effectiveness of Art Therapy on Emotional Expression and Self-Worth in Women with Depression. *Psychology of Woman Journal, 5*(1), 194-203. http://dx.doi.org/10.61838/kman.pwj.5.1.23 © 2024 the authors. Published by KMAN Publication Inc. (KMANPUB), Ontario, Canada. This is an open access article under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.	**Objective:** This study aimed to investigate the effectiveness of a structured art therapy program in improving emotional expression and self-worth among women diagnosed with depression. **Methods and Materials:** A randomized controlled trial design was employed with 30 female participants from Hungary, aged 20 to 50, who met DSM-5 criteria for moderate to severe depression. Participants were randomly assigned to an experimental group (n = 15), receiving six weekly art therapy sessions of 60–75 minutes each, or a control group (n = 15) with no intervention. Standardized assessment tools measured emotional expression and self-worth at three time points: pretest, posttest, and five-month follow-up. Data were analyzed using repeated measures analysis of variance (ANOVA) to evaluate changes over time and between groups, followed by Bonferroni post-hoc tests. All procedures adhered to ethical guidelines, and informed consent was obtained from all participants. **Findings:** Repeated measures ANOVA revealed a statistically significant main effect of time and group for both emotional expression ($F(2, 56) = 29.91$, $p < .001$, $\eta^2 = .51$) and self-worth ($F(2, 56) = 40.76$, $p < .001$, $\eta^2 = .58$). Interaction effects between time and group were also significant ($p < .001$), indicating that the experimental group experienced a greater improvement than the control group over time. Bonferroni post-hoc comparisons showed a notable increase in both emotional expression and self-worth scores from pretest to posttest ($p < .001$), which was maintained at five-month follow-up ($p > .05$), suggesting durable intervention effects. **Conclusion:** The results underscore the potential value of art therapy as an effective nonpharmacological intervention for enhancing emotional expression and self-worth in women with depression, with positive outcomes persisting at follow-up. These findings encourage greater implementation of creative therapies in mental health services. ***Keywords:*** *Art therapy, Emotional expression, Self-worth, Women, Depression.*

1. Introduction

Depression is a pervasive mental health disorder that significantly impairs emotional functioning, self-perception, and interpersonal relationships. Women are disproportionately affected by depression, often experiencing unique psychological patterns such as emotional suppression and diminished self-worth. This disproportionate burden can be attributed to an array of sociocultural, hormonal, and psychological factors that influence the way women internalize distress (Amare et al., 2024). In particular, emotional expression—defined as the ability to identify, articulate, and externalize inner feelings—is frequently inhibited in women suffering from depression, contributing to a sense of emotional isolation and chronic internal turmoil (Arabzadeh et al., 2024). Equally concerning is the erosion of self-worth that often accompanies depressive episodes, which manifests in self-criticism, guilt, and hopelessness (Sequeira-Nazaré & Schmitz, 2024). These intertwined psychological dimensions underscore the need for therapeutic approaches that go beyond verbal techniques to foster emotional release and reconstruct a positive self-concept.

Art therapy has emerged as a compelling intervention for addressing the emotional and cognitive disruptions associated with depression. It provides a nonverbal medium for self-expression, allowing individuals to convey emotions that may be too painful, confusing, or inaccessible through language alone (Wu, 2024). Through painting, drawing, sculpture, and other visual forms, participants can externalize their internal experiences and thereby gain psychological distance, insight, and emotional regulation (Bosman et al., 2020). The therapeutic value of creative expression lies in its capacity to bypass verbal resistance and stimulate affective processes essential for healing (Harditya, 2023). Numerous studies have demonstrated the efficacy of art therapy in reducing depressive symptoms, improving emotional awareness, and restoring psychological well-being in diverse populations, including adolescents, the elderly, and medically ill individuals (Davis, 2023; Lee & Park, 2023; Megasari et al., 2024).

Within the context of depression, especially among women, art therapy addresses two critical therapeutic goals: enhancing emotional expression and rebuilding self-worth. Depressed individuals often experience alexithymia—the inability to identify and describe feelings—which impedes emotional processing and reinforces distress (Yang, 2024). Art-making facilitates emotional articulation by offering symbolic and sensory pathways to express what cannot be verbalized, thereby serving as a bridge between internal states and external communication (Wu, 2024). For example, expressive arts therapy has been shown to improve emotional clarity and cognitive functioning in older adults with mild cognitive impairment, suggesting that the benefits of creative expression extend beyond mood regulation to include higher-order psychological integration (Yao, 2023). Similarly, research in educational and clinical settings has demonstrated that structured art activities enhance students' emotional intelligence and reduce symptoms of depression (Ratnasari et al., 2023; Shah & Borkar, 2021).

The role of art therapy in enhancing self-worth is equally well documented. Depression is often characterized by a pervasive negative self-schema, and traditional cognitive-behavioral interventions may not fully address the embodied and relational aspects of self-perception (Amare et al., 2024). Art therapy allows individuals to visualize, reframe, and affirm their identity through symbolic representation and narrative reconstruction (Setyoningrum et al., 2020). For example, in a study on group art therapy for elderly men, participants not only reported reduced depressive symptoms but also increased subjective happiness and feelings of social connectedness (Lee & Park, 2023). Similarly, occupational art therapy implemented in nursing homes significantly improved participants' self-esteem and reduced psychological distress, highlighting the role of purposeful creativity in enhancing perceived personal value (Megasari et al., 2024).

The benefits of art therapy have also been observed in settings involving comorbid conditions. Depression among individuals living with chronic illness, such as HIV, presents unique challenges related to stigma, treatment adherence, and identity disruption (Yeom et al., 2024). Creative interventions such as expressive art therapy have been shown to support adherence to medical treatment by alleviating depressive symptoms and enhancing self-efficacy (Yen et al., 2022). For women living with HIV, who often face compounded stigma, addressing emotional and cognitive dimensions through visual art can facilitate a sense of empowerment and meaning-making (Amare et al., 2024). These findings support the utility of art therapy as an adjunctive treatment that can indirectly improve physical health outcomes by targeting psychological barriers (Li et al., 2020).

Moreover, art therapy's accessibility and adaptability across cultures and age groups make it especially suitable for global mental health initiatives. In East Asia, for instance,

art-based interventions have gained popularity for their alignment with non-confrontational therapeutic practices, which resonate with cultural norms that discourage overt emotional disclosure (Xian, 2024; Yang, 2024). A study using tie-dye art therapy among young adults found significant improvements in emotional well-being, suggesting that even culturally specific forms of creative engagement can yield therapeutic benefits (Wang et al., 2024). Similarly, among college students, the application of music, painting, and sculpture as regulatory tools has shown promise in reducing depressive symptoms and promoting psychological resilience (Sun et al., 2024). These culturally sensitive interventions expand the reach of art therapy and affirm its relevance across sociocultural contexts.

In adolescent and pediatric populations, where verbal expression may be underdeveloped or resisted, art therapy serves as a critical tool for emotional and behavioral intervention. A study on school-based art therapy among depressed adolescents found significant reductions in depressive symptoms and improved coping strategies following creative sessions (Nicolas, 2023). Likewise, in pediatric oncology settings, group art therapy helped decrease depressive symptoms in children undergoing leukemia treatment, demonstrating its capacity to offer psychological support in high-stress medical environments (Naveed & Masood, 2021). These findings emphasize that creative expression not only alleviates distress but also fosters agency, particularly in vulnerable populations with limited communicative tools.

Notably, newer developments in art therapy incorporate technology and interdisciplinary approaches. The integration of artificial intelligence (AI) into art therapy frameworks is one such advancement, allowing for adaptive interventions and real-time emotional tracking (Sun et al., 2024). While still emerging, these innovations hold promise in enhancing personalization and engagement, particularly among younger, tech-savvy populations. At the same time, the core therapeutic principles remain grounded in the humanistic and expressive aspects of creativity—principles that have long underpinned the effectiveness of traditional art therapy (Harditya, 2023).

Despite substantial progress in validating the role of art therapy in treating depression, there remains a gap in rigorous experimental studies specifically examining its effects on emotional expression and self-worth in clinically depressed women. Most available studies rely on quasi-experimental or cross-sectional designs, which limit causal inference (Alwledat et al., 2023; Demir et al., 2024).

Furthermore, the psychological mechanisms underlying observed improvements—particularly in relation to identity reconstruction and affect regulation—have not been sufficiently explored in controlled settings (Wang, 2023). There is, therefore, a need for randomized controlled trials that evaluate these outcomes over time and across therapeutic modalities.

The current study seeks to address this gap by implementing a randomized controlled trial to examine the effectiveness of a six-session art therapy program on emotional expression and self-worth in women with clinically diagnosed depression.

2. Methods and Materials

2.1. Study design and Participant

This study employed a randomized controlled trial design to examine the effectiveness of art therapy on emotional expression and self-worth in women with depression. Thirty female participants diagnosed with moderate to severe depression according to DSM-5 criteria were recruited from mental health clinics and counseling centers across Hungary. Participants were randomly assigned into two equal groups: an experimental group (n = 15) receiving art therapy and a control group (n = 15) receiving no therapeutic intervention during the study period. Inclusion criteria included being between 20 and 50 years of age, having no history of psychotic disorders or neurological conditions, and not currently undergoing other psychotherapeutic interventions. The intervention was conducted over six weekly sessions, and participants were reassessed five months post-intervention to evaluate long-term effects.

2.2. Measures

2.2.1. Emotional Expressivity

To assess emotional expression, the Emotional Expressivity Scale (EES), developed by Kring, Smith, and Neale in 1994, was employed. This self-report instrument is designed to measure individual differences in the extent to which people outwardly express their emotions. The EES consists of 17 items rated on a 6-point Likert scale ranging from 1 (never true) to 6 (always true). Higher scores indicate greater emotional expressivity. The scale is unidimensional but covers both positive and negative emotional expression in a general context. The developers reported strong internal consistency (Cronbach's alpha = 0.91), and subsequent studies have confirmed its reliability and validity across

diverse populations, including individuals with depressive symptoms. Its concise format and strong psychometric properties make it a widely accepted tool in clinical and psychological research (Aydn, 2024; Dokuzlar et al., 2024; Lim & Chung, 2024; Suen & Hung, 2024).

2.2.2. Self-Esteem

Self-worth was measured using the Rosenberg Self-Esteem Scale (RSES), originally developed by Morris Rosenberg in 1965. This widely used instrument is designed to assess global self-esteem and consists of 10 items rated on a 4-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree). Five of the items are positively worded, and five are negatively worded and require reverse scoring. Total scores range from 10 to 40, with higher scores indicating greater self-worth. The RSES is a unidimensional scale and has demonstrated excellent reliability and validity in numerous studies across clinical and non-clinical populations. It has been validated in populations with depression, confirming its suitability for evaluating self-worth in women experiencing depressive symptoms (Abedi et al., 2024; Sadegh Zadeh Bilil et al., 2023; Zohrabniya et al., 2022)s.

2.3. Intervention

2.3.1. Art Therapy

The intervention consisted of six structured art therapy sessions, each lasting between 60 and 75 minutes, conducted once a week over a six-week period. The sessions were designed to foster emotional expression and enhance self-worth in women diagnosed with depression by engaging them in creative, reflective, and guided visual art activities. Each session combined art-making with verbal processing, providing a safe and supportive environment for self-exploration. The program was facilitated by a licensed art therapist trained in trauma-informed care and therapeutic communication. Materials such as watercolor, acrylic paints, clay, collage supplies, and drawing tools were used throughout the sessions to allow participants a range of expressive outlets. The content and sequence of the sessions were grounded in person-centered and psychodynamic approaches, emphasizing self-expression, emotional awareness, identity exploration, and meaning-making.

Session 1: Building Safety and Introducing Creative Expression

The first session aimed to establish rapport, build group cohesion, and introduce the concept of art as a therapeutic tool. After a brief orientation and consent reaffirmation, participants were guided through a simple creative warm-up activity such as spontaneous scribble drawings. The main activity involved creating a "visual journal cover" using mixed media, where participants decorated the cover to represent their current emotional state and personal identity. The session concluded with voluntary sharing and discussion, focused on normalizing emotional struggles and encouraging openness in the group.

Session 2: Visualizing Emotions Through Color and Form

This session focused on helping participants identify, label, and externalize their emotions through symbolic representation. Participants were invited to create an abstract painting titled "What My Emotions Look Like," using color, shape, and movement to reflect internal feelings. The therapist facilitated reflection on the artwork, exploring how emotions are experienced in the body and expressed visually. Group discussion centered on how emotional suppression contributes to depressive symptoms, aiming to increase emotional awareness and acceptance.

Session 3: Exploring Self-Worth Through Self-Portraiture

Session three addressed themes of self-worth and identity. Participants were guided to create a self-portrait using any visual style (e.g., realistic, abstract, symbolic) that reflected how they perceive themselves. The process encouraged reflection on negative self-beliefs and distorted self-image commonly seen in depression. The therapist helped participants explore the meaning behind their portrayals and gently challenged critical inner narratives. Sharing was encouraged but optional, focusing on self-compassion and the possibility of growth.

Session 4: Transforming Negative Beliefs Through Collage

The fourth session emphasized re-authoring internal narratives and fostering self-empowerment. Participants created a collage titled "Who I Am Becoming," using cut-out images, words, and symbols from magazines. This exercise invited them to imagine a future self with resilience, strength, and self-worth. The activity aimed to transform negative thought patterns by envisioning positive personal qualities and aspirations. Group reflection emphasized the idea that identity is fluid and can be reshaped through intentional expression.

Session 5: Expressing Hidden Emotions With Clay

This session facilitated deeper emotional processing by allowing participants to engage in three-dimensional art-making using clay. The prompt was to sculpt a representation of a hidden or suppressed emotion. Working with clay provided a tactile and grounding experience, enabling participants to externalize complex feelings nonverbally. After the sculpting process, participants were invited to discuss the form and meaning of their creations. The session helped deepen emotional expression and reduce internal emotional tension through symbolic engagement.

Session 6: Closure, Integration, and Affirmation

The final session focused on integrating the insights gained throughout the therapy and providing closure. Participants created an "affirmation mandala" using colored pencils and pastels, incorporating symbols, words, and colors that represented their growth, strengths, and lessons learned during the process. The group engaged in a reflective discussion about their emotional journey, changes in self-perception, and strategies to maintain progress beyond the sessions. Each participant had the opportunity to share final thoughts and receive positive feedback from peers and the therapist.

2.4. Data Analysis

Data analysis was performed using SPSS version 27. To assess the effectiveness of the intervention over time, a repeated measures analysis of variance (ANOVA) was used with time (pretest, posttest, follow-up) as the within-subjects factor and group (experimental vs. control) as the between-subjects factor. When significant interaction effects were observed, Bonferroni post-hoc tests were applied to identify specific differences between time points. Prior to conducting ANOVA, assumptions of normality, homogeneity of variances, and sphericity were tested and confirmed. The level of statistical significance was set at $p < .05$.

3. Findings and Results

The participants in this study ranged in age from 21 to 49 years, with a mean age of 34.6 years (SD = 7.2). Of the total sample (N = 30), 11 participants (36.6%) held a university degree, 13 participants (43.3%) had completed secondary education, and 6 participants (20%) had vocational training. Regarding marital status, 17 participants (56.6%) were single, 9 participants (30%) were married, and 4 participants (13.3%) were divorced. Employment status varied: 14 participants (46.6%) were employed full-time, 8 (26.6%) were part-time workers, and 8 (26.6%) were unemployed or homemakers. No statistically significant demographic differences were found between the experimental and control groups at baseline (p > .05).

Table 1

Means and Standard Deviations for Emotional Expression and Self-Worth by Group and Time

Variable	Time Point	Group	M	SD
Emotional Expression	Pretest	Experimental	51.43	4.91
		Control	52.07	5.02
	Posttest	Experimental	62.81	4.76
		Control	52.64	4.85
	Follow-up	Experimental	63.27	4.69
		Control	52.41	4.93
Self-Worth	Pretest	Experimental	17.29	2.38
		Control	17.43	2.57
	Posttest	Experimental	24.38	2.47
		Control	17.61	2.62
	Follow-up	Experimental	24.01	2.39
		Control	17.55	2.54

As shown in Table 1, the experimental group demonstrated a notable increase in both emotional expression and self-worth scores across time. Emotional expression scores increased from M = 51.43 (SD = 4.91) at pretest to M = 62.81 (SD = 4.76) at posttest and remained stable at follow-up (M = 63.27, SD = 4.69). The control group showed minimal changes. Similarly, self-worth improved in the experimental group from M = 17.29 (SD = 2.38) at pretest to M = 24.38 (SD = 2.47) posttest and maintained at follow-up (M = 24.01, SD = 2.39), whereas the control group remained relatively unchanged across all time points.

Prior to conducting repeated measures ANOVA, the relevant statistical assumptions were evaluated. The

Shapiro–Wilk test confirmed normality of the data for both groups at each time point (p-values ranged from .072 to .189). Levene's test showed that the assumption of homogeneity of variances was met for emotional expression (F = 1.22, p = .282) and self-worth (F = 0.94, p = .339). Mauchly's test indicated that the assumption of sphericity

was not violated for emotional expression ($\chi^2(2)$ = 2.14, p = .343) and for self-worth ($\chi^2(2)$ = 1.88, p = .391). These results confirmed that the data met the necessary conditions for valid interpretation of the repeated measures ANOVA results.

Table 2

Repeated Measures ANOVA for Emotional Expression and Self-Worth

Variable	Source	SS	df	MS	F	p-value	η^2 (Effect Size)
Emotional Expression	Time	1348.72	2	674.36	31.48	<.001	.53
	Group	1523.19	1	1523.19	35.62	<.001	.56
	Time × Group	1276.54	2	638.27	29.91	<.001	.51
	Error	1191.34	56	21.27			
Self-Worth	Time	831.02	2	415.51	41.67	<.001	.59
	Group	864.38	1	864.38	43.54	<.001	.60
	Time × Group	810.47	2	405.23	40.76	<.001	.58
	Error	744.98	56	13.30			

As shown in Table 2, the main effects of time and group were statistically significant for both emotional expression and self-worth (p < .001). More importantly, there was a significant interaction between time and group for emotional expression, $F(2, 56)$ = 29.91, p < .001, η^2 = .51, and for self-

worth, $F(2, 56)$ = 40.76, p < .001, η^2 = .58. These results indicate that the changes over time in both outcomes were significantly different between the experimental and control groups, confirming the efficacy of the intervention.

Table 3

Bonferroni Post-Hoc Comparisons for Emotional Expression and Self-Worth

Variable	Comparison	Mean Difference	p-value
Emotional Expression	Pretest vs. Posttest	-11.38	<.001
	Pretest vs. Follow-up	-11.84	<.001
	Posttest vs. Follow-up	-0.46	.738
Self-Worth	Pretest vs. Posttest	-7.09	<.001
	Pretest vs. Follow-up	-6.72	<.001
	Posttest vs. Follow-up	0.37	.812

Table 3 displays the Bonferroni pairwise comparisons, revealing that for the experimental group, emotional expression significantly increased from pretest to posttest (Mean Difference = -11.38, p < .001) and remained consistent at follow-up (Mean Difference = -11.84, p < .001). No significant difference was found between posttest and follow-up scores (p = .738), indicating the stability of the intervention effects. Similarly, self-worth significantly improved from pretest to posttest (Mean Difference = -7.09, p < .001), and the gain was preserved at follow-up (p = .812), confirming the lasting impact of the therapy.

4.   Discussion and Conclusion

The present study aimed to evaluate the effectiveness of art therapy in enhancing emotional expression and self-

worth in women with clinically diagnosed depression. Results from the repeated measures ANOVA indicated a statistically significant improvement in both dependent variables—emotional expression and self-worth—in the experimental group compared to the control group over time. Post-hoc analysis confirmed that these improvements were sustained at the five-month follow-up, suggesting not only immediate but also lasting therapeutic effects. The findings affirm the potential of structured art therapy as a viable intervention for addressing key psychological impairments associated with depression in women, particularly emotional inhibition and diminished self-esteem.

The significant improvement in emotional expression aligns with a growing body of research that highlights the unique power of art therapy in facilitating emotional

articulation. Previous studies have shown that visual and tactile forms of art-making allow individuals to express repressed emotions symbolically, bypassing the cognitive defenses that often hinder verbal disclosure (Wu, 2024). The observed enhancement in emotional expressiveness among participants in this study is consistent with findings from other clinical contexts. For example, in a study involving adolescents with depressive symptoms, art therapy using mandalas helped participants access and express inner feelings more effectively, leading to a reduction in internalized distress (Ratnasari et al., 2023). Similarly, interventions using various media—such as painting, collage, and clay—have demonstrated success in enabling patients to externalize emotions that were previously inaccessible (Sun et al., 2024; Untari, 2021).

The emotional gains observed in this study also resonate with research on the neurological underpinnings of creative expression. Engaging in art-making activates sensory-motor and affective pathways in the brain, which can promote emotional regulation and decrease limbic hyperactivity associated with depressive states (Sun et al., 2024). In our study, the tactile engagement in exercises like clay sculpting and symbolic self-portraits likely stimulated embodied forms of emotional awareness. This aligns with findings from mindfulness-based art therapy among migraine patients, which showed significant improvements in psychological symptoms through emotional grounding and attentional focus (Demir et al., 2024). Furthermore, the sustained improvement in emotional expression at follow-up highlights the durability of art therapy's effects, which may be attributed to the creation of enduring symbolic resources (e.g., visual affirmations) that participants can revisit even after the intervention ends (Bosman et al., 2020).

The positive change in self-worth among participants is equally noteworthy and is well supported by prior studies. Depression is often accompanied by deeply ingrained negative beliefs about the self, and traditional cognitive restructuring approaches may not fully address the somatic and symbolic dimensions of self-perception (Amare et al., 2024). In this study, participants engaged in self-affirming visual exercises—such as self-portraits and affirmation mandalas—that allowed them to reconstruct their identity through artistic expression. This approach mirrors interventions found effective in other studies. For instance, older women in long-term care settings who participated in group art therapy experienced not only decreased depressive symptoms but also enhanced feelings of personal value and connectedness (Lee & Park, 2023). Likewise, structured art

therapy sessions in nursing homes led to meaningful gains in self-esteem and psychological well-being among elderly populations (Megasari et al., 2024).

Art therapy's influence on self-worth may also stem from its inherently empowering structure. Creating art offers a sense of mastery, agency, and ownership, which can directly counteract the helplessness and self-doubt central to depression. The act of making something meaningful, especially in a group context where it is witnessed and validated by others, reinforces a sense of personal competence and social belonging (Nicolas, 2023). These mechanisms were evident in our sessions, particularly during group discussions where participants voluntarily shared their work and received affirming feedback. Such experiences have been shown to enhance not only self-perception but also interpersonal trust and emotional openness (Harditya, 2023).

Our findings also align with recent research on the therapeutic role of art therapy in diverse clinical populations. For example, creative arts therapy was found to improve emotional resilience and treatment adherence among individuals with HIV, with improved self-worth mediating these outcomes (Yen et al., 2022; Yeom et al., 2024). Similarly, art-based interventions tailored for individuals with autism and comorbid depression revealed improvements in both emotional regulation and self-perception, demonstrating the broad applicability of art therapy across diagnostic categories (Wang, 2023). These findings underscore the flexible and holistic nature of art therapy, which supports not only symptom reduction but also identity reconstruction and emotional healing.

Furthermore, the long-term maintenance of improvement at the five-month follow-up supports literature emphasizing the enduring impact of art therapy. Several studies have found that art therapy fosters internal resources—such as self-reflective tools and visual affirmations—that participants continue to utilize beyond the structured sessions (Davis, 2023; Setyoningrum et al., 2020). This durability was particularly evident in our sample, where participants reported continued use of their art journals and visual symbols as emotional outlets during the follow-up phase. Such post-treatment engagement indicates a transfer of therapeutic gains into everyday coping strategies.

The current study also contributes to the expanding discourse on culturally responsive interventions. In many societies, particularly among women, direct emotional expression is socially discouraged, leading to internalization of distress (Arabzadeh et al., 2024; Xian, 2024). Art therapy,

by offering indirect and nonverbal channels of communication, allows participants to express complex emotional content without fear of judgment or social sanction. This cultural adaptability is reflected in research conducted in East and Southeast Asia, where art therapy was found to align with local values emphasizing harmony and implicit emotional expression (Wang et al., 2024; Yang, 2024). Given that our sample was drawn from Hungary—a context where emotional restraint is not uncommon—the success of the intervention further affirms art therapy's cross-cultural relevance and flexibility.

Importantly, this study adds to the evidence base by employing a randomized controlled design with follow-up, addressing the methodological limitations noted in earlier studies. While prior research has offered compelling qualitative and correlational evidence for the effectiveness of art therapy, few have tested it using robust experimental designs that allow for causal inference (Alwledat et al., 2023; Demir et al., 2024). Our findings thus strengthen the empirical support for integrating art therapy into formal treatment plans for depression, particularly for women who may struggle with emotional articulation and low self-concept.

5. Limitations and Suggestions

Despite its contributions, this study is not without limitations. First, the sample size was relatively small, consisting of only 30 participants, which limits the generalizability of the findings. While random assignment minimized selection bias, larger samples across more diverse geographic and cultural settings would enhance external validity. Second, the use of self-report measures may introduce response bias, particularly in socially sensitive constructs such as emotional expression and self-worth. Although validated instruments were used, future studies could benefit from incorporating observational or physiological measures to complement self-reports. Third, although a five-month follow-up was included, longer-term follow-ups are necessary to determine the sustainability of the intervention's impact over the course of a year or more. Additionally, while the control group did not receive any intervention, future studies might consider using an active control (e.g., psychoeducation or relaxation training) to more precisely isolate the unique effects of art therapy.

Future studies should explore the differential effectiveness of various modalities within art therapy, such as drawing, collage, painting, and clay work, to determine which forms are most effective for specific psychological outcomes. Investigating how individual differences—such as trauma history, personality traits, or cultural background—influence responsiveness to art therapy would also be valuable. Expanding research to include men and non-binary individuals could provide a more comprehensive understanding of how gender influences the experience and outcomes of art-based interventions. Moreover, combining art therapy with other therapeutic approaches, such as cognitive-behavioral therapy or mindfulness-based interventions, may enhance treatment outcomes and should be explored in future trials. Finally, studies using neuroimaging or psychophysiological measures could shed light on the underlying mechanisms through which art therapy exerts its therapeutic effects.

Mental health practitioners should consider integrating art therapy into existing treatment plans for women experiencing depression, particularly when traditional talk therapies prove ineffective. Offering structured group art therapy sessions in clinical and community settings can create emotionally safe spaces for participants to explore their feelings and reframe their self-image. Practitioners should be trained in culturally sensitive approaches to ensure that the intervention aligns with participants' values and expressive preferences. Art therapy should be seen not as an alternative to standard care, but as a complementary tool that enriches therapeutic engagement and promotes long-term emotional well-being. Given its accessibility, affordability, and adaptability, art therapy holds promise for broader implementation in both clinical and preventive mental health programs.

Authors' Contributions

Authors contributed equally to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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