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Review

The impact of psychology on art therapy: Emotional, cognitive, behavioral, and social dimensions

Sofia Belhaj*, **Abdelrhani Mounid**

Faculty of Letters and Human Sciences, Mohammed V University in Rabat, Rabat B.P. 8007, Morocco

*** Corresponding author:** Sofia Belhaj, sofi.belhaj@gmail.com

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Abstract: Art therapy sits at the crossroads of psychology and artistic creation, with the shared goal of supporting mental health and overall well-being. This article explores how psychological knowledge shapes art therapy in four main areas: emotional, cognitive, behavioral, and social. Drawing on psychodynamic, cognitive-behavioral, humanistic, and neuroscientific approaches, it brings together findings from peer-reviewed publications published between 1970 and 2024. The review shows that psychological frameworks strengthen art therapy by helping clients express and regulate emotions, rethink and give meaning to their experiences, develop new behaviors and coping strategies, and build social connection and empathy. Several key mechanisms of change are highlighted, including the use of symbols, experiences of "flow", visual storytelling, and group dynamics. A conceptual model is proposed to illustrate how these four dimensions interact dynamically and reinforce one another in therapeutic contexts. Furthermore, the article emphasizes the importance of the therapeutic relationship and cultural sensitivity in shaping outcomes. Overall, the findings indicate that psychology does more than simply give art therapy theoretical legitimacy; it also contributes to improved clinical outcomes across diverse populations and settings. The paper closes with suggestions for future research, including longitudinal studies and cross-cultural comparisons.

Keywords: Art therapy; clinical psychology; emotional regulation; cognitive reframing; behavior-focused interventions; social connectedness; mechanisms of therapeutic change; creative artistic expression

1. Introduction

Art therapy has evolved over the past fifty years into an established mental health profession that combines artistic creation with psychotherapeutic principles and methods (Malchiodi, 2012). In contrast to traditional talk-based therapies, they offer non-verbal, sensory, and symbolic pathways for expressing inner experiences that may be too confusing, painful, or inaccessible to articulate verbally (Hass-Cohen and Findlay, 2015). This makes art therapy particularly relevant for individuals experiencing trauma, developmental or neurological conditions, as well as cultural and linguistic barriers that limit verbal communication (Hass-Cohen and Findlay, 2015).

The conceptual foundations of art therapy are closely intertwined with developments in psychology. Early work on dreams and symbolism, mid-twentieth-century humanistic and cognitive approaches, and more recent neuroscientific research on creativity and emotion have all shaped how therapists

interpret images, structure sessions, and understand processes of change (Lusebrink, 2004). However, although the influence of psychology is widely acknowledged, the specific ways in which psychological principles operate across the different therapeutic dimensions of art therapy remain fragmented and insufficiently integrated in literature.

This article seeks to address this gap by offering a multidimensional analysis of how psychology informs and enhances art therapy. Its aims are to identify the major psychological theories underpinning contemporary practice, to clarify how they contribute to emotional regulation and externalization, cognitive restructuring and meaning-making, behavioral change and coping, as well as social connection and integration, and to propose an integrated framework that links these dimensions into a coherent model of therapeutic action (Lusebrink, 2004). Accordingly, this study addresses the following research question: How do psychological theories influence therapeutic mechanisms in art therapy across emotional, cognitive, behavioral, and social dimensions?

The objective of this article is to provide an integrative, evidence-informed synthesis of the literature and to propose an operational conceptual model-the Psychological Dimensions of Art Therapy (PDAT)-that supports both clinical application and empirical investigation. Recent systematic reviews and meta-analyses have further underscored the need for such a framework.

2. Theoretical foundations of art therapy in psychology

Art therapy is grounded in several major psychological traditions rather than a single school of thought. Each tradition highlights different aspects of how creative work can support psychological change (Gussak and Rosal, 2016; Kapitan, 2010).

Psychodynamic theory, originating and later expanded by object relations theorists show that emphasizes the unconscious mind, symbolism, and the therapeutic relationship. Psychodynamic theory emphasizes the unconscious, symbolism, and the therapeutic relationship. In art therapy, images are understood as bridges between conscious and unconscious life, revealing internal conflicts, defenses, and transference patterns in a safe, symbolic form (Case and Dalley, 2014).

Cognitive-behavioral psychology applies principles of learning and information processing to art therapy. Beck's (1976) cognitive model proposes that maladaptive emotions and behaviors stem from distorted thoughts. Cognitive-behavioral psychology links thoughts, emotions, and behaviors. Artmaking is used to externalize and examine distorted cognitions, then actively reframe them; behavioral principles such as reinforcement and exposure are integrated into structured art tasks (Rosal, 2016).

Humanistic psychology, particularly the person-centered approach and the self-actualization theory of Maslow, underpins many contemporary art therapy practices. Humanistic psychology underpins approaches that view the artwork as an expression of the self, not just a symptom. The focus is on authenticity, creativity, and the client's innate drive toward growth within an empathic, non-judgmental relationship.

Recent neuroscience provides biological support for art therapy's effects.

Brain-imaging studies show that creative activities engage networks involved in emotion regulation and cognitive flexibility, linking artmaking to changes in prefrontal, limbic, and default-mode network activity (Kandel, 2012).

Together, these psychodynamic, cognitive-behavioral, humanistic, and neuroscientific perspectives form the core theoretical scaffold for contemporary art therapy practice (Bolwerk et al., 2014; King et al., 2019).

3. Emotional dimension of art therapy

Emotion lies at the heart of both psychological suffering and psychological recovery, shaping how individuals experience, interpret, and respond to their inner and outer worlds. Contemporary psychology provides detailed models of emotional processes, which help explain why engaging in artistic creation can transform vague or overwhelming feelings into more manageable experiences.

Within art therapy, these models clarify how visual and sensory expression enable clients to externalize complex emotions that may be difficult to articulate verbally, turning them into concrete images that can be observed, named, and explored safely. Psychological theories of emotion recognition also guide therapists in helping clients identify and differentiate what they feel, using the artwork as a mirror for emotional awareness rather than a simple aesthetic object.

Finally, research on emotion regulation and stress physiology supports the idea that repetitive, rhythmic, or absorbing artistic activities can downshift arousal and restore a sense of calm, linking creative processes to measurable changes in both subjective and biological indicators of distress.

3.1. Emotional expression and externalization

Artmaking offers a concrete channel for transforming vague, intense, or conflicting emotions into visible forms that can be seen and worked with. Unlike spoken language, which forces experience into linear sentences and fixed categories, visual images can hold several feelings at once and preserve their ambiguity, complexity, and strength. This is especially important for people living with trauma, who may be blocked from speaking by dissociation, fear, or shame. Through drawing, painting, or other creative media, they can allude to traumatic events symbolically rather than recounting them directly, which lowers emotional avoidance and defensive withdrawal (Chapman et al., 2001). Over time, these indirect representations support a progressive integration of traumatic memories into the person's life story, making them more thinkable, shareable, and less overwhelming.

3.2. Interpretation of emotional content

Psychological theories guide therapists in interpreting emotional content without imposing meaning. From a psychodynamic perspective, choices of color, line pressure, composition, and symbolism may reflect unconscious emotional states (Case and Dalley, 2014). Cognitive-behavioral approaches, by contrast, focus on the client's own narrative about their artwork, using Socratic questioning to explore emotional beliefs (Rosal, 2016).

3.3. Emotional regulation

Emotional regulation refers to how individuals monitor, modify, and recover from emotional states, and it is a central mechanism through which art therapy promotes psychological healing. In this context, psychology helps explain why creative processes can calm the body, clarify feelings, and restore a sense of control over inner experience.

Experimental evidence indicates that art therapy can reduce biological stress markers. A randomized controlled trial by Abbing et al. (2019) found that adults participating in art therapy showed significantly lower cortisol levels and better emotion regulation than waitlist controls, suggesting direct effects on the stress response system. Neuroscientific and psychological perspectives converge on the idea that repetitive, rhythmical art activities-such as coloring, kneading clay, or brushwork-help shift the nervous system from hyperarousal to a calmer, parasympathetic state. These activities can induce flow, a state of focused absorption in which attention narrows, rumination decreases, and emotional turbulence is suspended.

Recent research further strengthens the evidence base for emotional regulation in art therapy. Contemporary studies highlight that structured art therapy interventions can significantly reduce symptoms of anxiety, depression, and emotional dysregulation, particularly in clinical populations (e.g., Abbing et al., 2019; Haeyen, 2022; Barnish and Nelson-Horne, 2023; Du et al., 2024; Han et al., 2024). In addition, trauma-informed approaches emphasize the role of non-verbal expression in safely processing overwhelming emotional experiences, especially when verbal processing is limited (Malchiodi, 2020). These findings reinforce the view that art therapy operates as both an expressive and regulatory system grounded in contemporary psychological science. Recent research further strengthens the evidence base. A dose-response study by Kaimal et al. (2016) confirmed that even brief art-making significantly lowers cortisol in stressed adults.

Table 1 summarizes key psychological theories and their contributions to the emotional dimension of art therapy.

Table 1. Psychological theories informing the emotional dimension of art therapy.

Theory	Core concept	Application in art therapy	Representative author
Psychodynamic	Unconscious conflict	Symbol interpretation; free association to artwork	Freud (1960)
Cognitive-behavioral	Emotional beliefs	Identifying emotion-related thoughts; diary	Beck (1976)
Humanistic	Emotional authenticity	Non-directive creation; empathic reflection	Rogers (1961)
Neuroscientific	Affect regulation circuits	Use of repetitive art to down-regulate amygdala	Kandel (2012)

4. Cognitive dimension of art therapy

Cognition-how individuals perceive, think, remember, and solve problems—is intrinsically involved in artmaking and art appreciation. Psychology provides tools to harness cognitive processes for therapeutic change.

4.1. Symbolism and metaphor

Art therapy operates largely through visual metaphors. Clients may depict themselves as a tree with shallow roots, or paint a bird trapped in a cage. These images

are not merely illustrative; they are cognitive structures that condense complex personal meanings (Moon, 2007). Cognitive psychologists view metaphor as a fundamental mechanism of conceptual reorganization. By elaborating and transforming visual metaphors, clients can reframe self-narratives (Lakoff and Johnson, 1980; Şanlı et al., 2025).

4.2. Cognitive restructuring

Recent developments in cognitive-behavioral approaches, including Acceptance and Commitment Therapy (ACT) and third-wave Cognitive Behavioral Therapy (CBT) models, further expand the role of cognition in art therapy. These approaches emphasize psychological flexibility, acceptance, and values-based action rather than solely cognitive restructuring (Hayes et al., 2006). Within art therapy, this is reflected in the use of creative exercises that promote cognitive defusion, allowing clients to observe thoughts symbolically rather than being dominated by them. Such integration enhances the therapeutic potential of artmaking as a tool for both cognitive restructuring and experiential processing.

Recent empirical studies confirm that visual metaphor manipulation directly facilitates cognitive restructuring (Zhang et al., 2023), and ACT-informed art therapy improves psychological flexibility in clinical populations.

4.3. Problem-solving and executive function

Artmaking inherently requires planning, organization, inhibition, and flexibility—skills subsumed under executive function. For clients with ADHD, autism, or acquired brain injury, structured art projects can serve as cognitive rehabilitation (Safran, 2002). Psychology informs the grading of tasks to match the client's zone of proximal development, gradually increasing complexity as skills improve (Vygotsky, 1978). A recent systematic review by Bosgraaf et al. (2020) indicates that structured art therapy can support executive function in children and adolescents with psychosocial difficulties (Braito et al., 2022).

5. Behavioral dimension of art therapy

Behavioral psychology, particularly operant and social learning theories, contributes to understanding how art therapy shapes observable actions and habits.

Contemporary behavioral approaches also emphasize skill acquisition and emotional regulation strategies, as seen in Dialectical Behavior Therapy (DBT) by Linehan (1993). Recent adaptations highlight the integration of creative and experiential techniques to reinforce coping skills and behavioral change (Linehan, 2020). In this context, art therapy provides a practical and engaging medium through which clients can rehearse adaptive behaviors, develop distress tolerance, and strengthen self-regulation in a structured yet flexible manner.

5.1. Reinforcement of adaptive behaviors

In institutional settings—such as psychiatric hospitals, prisons, or schools—art therapy is often used to reinforce pro-social behaviors. Completion of an artwork

can be followed by positive reinforcement (praise, display of work and privileges), increasing the likelihood of engagement and task persistence. Behavioral art therapy is particularly effective for clients with intellectual disabilities or severe emotional disturbance, who may not respond to insight-oriented approaches (Pounsett et al., 2006). Recent adaptations have successfully combined art therapy with behavioral activation protocols for depression (Linehan, 2020).

5.2. Coping skills training

Art therapy provides a safe context to practice coping skills. A client with anger management difficulties may be guided to tear paper or pound clay as a substitute for aggressive outbursts. Over time, the artistic activity itself becomes a conditioned coping response (Moon, 2002). Behavioral rehearsal within sessions is then generalized to real-world triggers.

5.3. Addiction and habit change

Substance use disorders involve deeply entrenched behavioral patterns. Art therapy supports relapse prevention by occupying leisure time, reducing boredom, and providing natural reinforcement through creative achievement (Holt and Kaiser, 2009). Group art therapy also leverages peer modeling and social reinforcement, key constructs social cognitive theory. A pilot randomized clinical trial by Kang et al. (2023) found that art therapy interventions for alcohol use disorder produced significant changes in addiction biomarkers while facilitating behavioral activation.

6. Social dimension of art therapy

Recent research on group-based art therapy further supports its role in enhancing social functioning and interpersonal skills. Systematic reviews indicate that collaborative art-making fosters empathy, communication, and group cohesion, particularly among individuals with social or emotional difficulties. These findings align with social psychological theories emphasizing the importance of shared experience and relational engagement in therapeutic change. Recent meta-analyses confirm that group art therapy significantly enhances empathy, communication, and group cohesion (Bosgraaf et al., 2020; Zhang et al., 2024; Braito et al., 2022).

6.1. Interpersonal learning and universality

Yalom and Leszcz's (2005) therapeutic factors-particularly universality, altruism, and interpersonal learning-are highly applicable to group art therapy. When clients observe that others share similar fears or family conflicts expressed through art, they experience destigmatization. Offering feedback on another's artwork fosters empathy and perspective-taking.

6.2. Cultural identity and social justice

Art therapy is increasingly attentive to cultural psychology and critical theory. Clients from marginalized backgrounds may use art to explore racial identity, intergenerational trauma, or resistance to oppression. Psychologically informed

art therapy validates these experiences and supports collective meaning-making. Community-based murals, for instance, have been used to restore social cohesion after ethnic conflict

6.3. Social skills development

For children with autism spectrum disorder or adults with social anxiety, the art therapy group offers a low-threat environment to practice social skills. Joint art projects require turn-taking, this capacity for empathy and mutual understanding has its roots in early intersubjective experiences and negotiation of materials, and non-verbal attunement-skills that are generalized to peer interactions outside therapy (Epp, 2008).

7. An integrated dimensional model

The Psychological Dimensions of Art Therapy (PDAT) is an integrated conceptual framework that explains how psychological processes shape change in art therapy. It proposes four dynamically interacting pathways: emotional, cognitive, behavioral, and social, each representing a distinct but interlinked mechanism of therapeutic action. Rather than operating in isolation, these dimensions continually influence one another and tend to be mutually reinforcing over the course of treatment. For instance, emotional expression through images or symbols typically depends on processes of cognitive labeling and meaning-making, which help clients name and understand what they feel. In a similar way, behavioral engagement in artmaking-showing up to sessions, experimenting with materials, completing projects-always unfolds within a relational and social context, such as the alliance with the therapist or the dynamics of a group. The social validation of artwork, through witnessing, feedback, and acknowledgment by others, can in turn strengthen emotional regulation, self-worth, and a sense of belonging (de Witte et al., 2021). Clinically, the PDAT model offers a practical map for treatment planning: it encourages therapists to identify which psychological dimension is most central or disrupted for a particular client at a particular moment, and to tailor interventions accordingly. At the same time, it provides a systematic structure for empirical research, since each dimension can generate specific, testable hypotheses about underlying mechanisms (e.g., changes in emotion regulation or cognitive schemas) and measurable therapeutic outcomes.

The Psychological Dimensions of Art Therapy (PDAT) model is presented in **Figure 1**.

- **H1.** *Art therapy enhances psychological insight by facilitating the externalization of internal experiences, thereby improving self-awareness and cognitive processing of emotions. (Psychological dimension)*
- **H2.** *Engagement in art-based interventions supports psychological and emotional development by promoting adaptive coping strategies and strengthening resilience across different life stages. (Developmental dimension)*
- **H3.** *Art therapy significantly improves emotional regulation by reducing negative affect (e.g., anxiety, stress) and increasing positive emotional expression and stabilization. (Affective dimension)*

- **H4.** *The creative process in art therapy leads to transformative change by enabling meaning-making, identity reconstruction, and improved psychological integration over time. (Transformational dimension).*

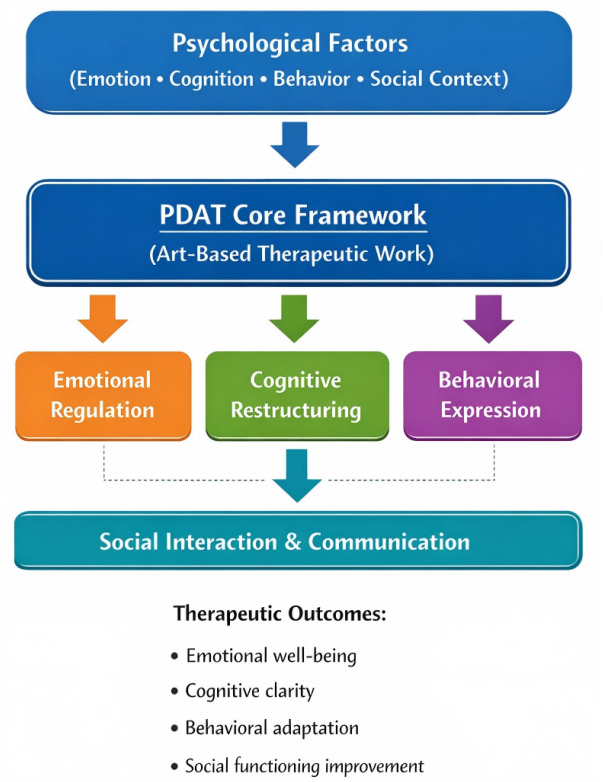

Figure 1. PDAT model.

The Expressive Therapies Continuum provides a complementary framework for understanding how different levels of artistic processing—from kinesthetic and perceptual to creative and symbolic—engage distinct psychological functions (Hinz et al., 2022).

8. Methodology

This study employed an integrative review design as defined by Whittemore and Knafl (2005), which allows the inclusion and synthesis of theoretical, qualitative, and quantitative research to generate a comprehensive understanding of a complex phenomenon. To enhance methodological rigor, the review was structured around a systematic search strategy, a Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)-inspired selection process, and a clearly defined analytical framework.

8.1. Search strategy

A systematic literature search was conducted across four electronic databases: PubMed, PsycINFO, Scopus, and Google Scholar. The search was performed using combinations of controlled and free-text

"Art therapy," "creative arts therapy," "emotion regulation," "cognition," "behavior," "social interaction," "CBT," "ACT," "DBT," and "TF-CBT."

Boolean operators (AND/OR) were used to refine the search and ensure comprehensive coverage of relevant studies. Reference lists of included articles were also manually screened to identify additional eligible studies.

8.2. Eligibility criteria

Studies were included based on the following criteria:

- Examined the relationship between psychological theories and art therapy;
- Addressed at least one of the four dimensions: emotional, cognitive, behavior;
- Were peer-reviewed empirical or theoretical publications;
- Published between 2000 and 2024;
- Written in English or other accessible scholarly languages.

Studies were excluded if they:

- Were not peer-reviewed;
- Did not focus on therapeutic applications of art therapy;
- Lacked sufficient methodological or theoretical clarity.

8.3. Study selection process (PRISMA-inspired)

The selection process followed a PRISMA-inspired flow consisting of four stages:

1. Identification—All records retrieved from database searches were imported and duplicates removed.
2. Screening—Titles and abstracts were screened for relevance to the research objectives.
3. Eligibility—Full-text articles were assessed against inclusion and exclusion criteria.
4. Inclusion—Final studies meeting all criteria were included in the synthesis.

A flow diagram was used to ensure transparency and traceability of the selection process.

Figure 2 presents the PRISMA flow diagram of the study selection process.

Numerical summary of the selection process:

The database searches (PubMed, PsycINFO, Scopus and Google Scholar) yielded a total of 1,245 records. After removing duplicates, 987 unique records remained. Titles and abstracts were screened against the eligibility criteria, resulting in the exclusion of 812 records that were clearly irrelevant (e.g., not related to art therapy, not addressing psychological dimensions). The remaining 175 full-text articles were assessed for eligibility. Of these, 110 were excluded for the following reasons: not peer-reviewed (n = 24), did not focus on at least one of the four therapeutic dimensions (n = 38), had insufficient methodological or theoretical clarity (n = 28), or were not available in English (n = 20). Hand-searching of reference lists and additional snowballing identified 15 further records, of which 10 met the inclusion criteria. Consequently, a total of 75 studies (65 from database searches +10 from hand-searching) were included in the final qualitative synthesis. This numerical summary provides the transparency expected for a PRISMA-inspired process, while acknowledging that the integrative nature of the review also incorporated theoretical and conceptual papers that do not

always fit a strict "records identified" model.

We included both clinical and non-clinical populations to capture the full scope of the literature; however, the lack of systematic differentiation between these groups is acknowledged as a limitation (see Section 10.3).

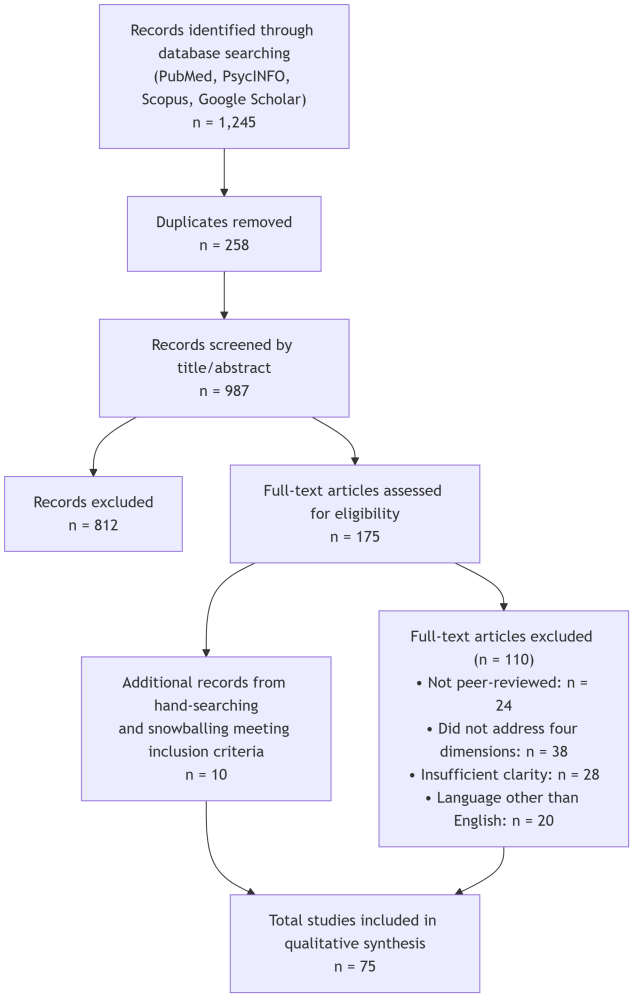

Figure 2. Simplified PRISMA flow diagram of the study selection process.

8.4. Data analysis framework

Data were analyzed using thematic analysis following Braun and Clarke (2006). To improve analytical rigor, a hybrid approach was applied:

- Deductive coding is based on four predefined dimensions: emotional, cognitive, behavioral, and social.
- Inductive coding allows new subthemes to emerge from the data.

Braun and Clarke's reflexive thematic analysis

Six Phases:

- **Familiarization:** Reading and re-reading data.
- **Coding:** Identifying interesting features.
- **Searching for themes:** Collating codes.
- **Reviewing themes:** Checking if themes work with coded data.

- **Naming themes:** Refining specifics.
- **Writing up:** Producing the report.

The extracted data were systematically organized into thematic categories and synthesized to identify patterns, mechanisms of change, and theoretical connections across studies.

The final sample of 75 studies included 15 published between 2021 and 2024, reflecting recent growth in rigorous outcome research (e.g., Sacheli et al., 2022; Zhang et al., 2023).

8.5. Analytical structure of findings

To strengthen interpretability, results were structured according to:

- The four core dimensions (emotional, cognitive, behavioral, social);
- Cross-dimensional interactions;
- Mechanisms of change (e.g., symbolism, flow states, group dynamics and narrative expression).

This structure ensured a coherent integration of evidence across psychological frameworks and therapeutic outcomes.

9. Results

Art therapy facilitates emotional expression, externalization, and regulation by providing a nonverbal channel through which individuals can safely explore and communicate complex internal experiences. The creative process enables the transformation of diffuse or overwhelming emotional states into concrete, symbolic representations, thereby enhancing emotional awareness and fostering psychological integration. This externalization reduces the intensity of internal distress by creating distance between the individual and the emotion, allowing for reflection, reappraisal, and meaning making.

From a psychological perspective, art therapy aligns with theories of emotion regulation, particularly those emphasizing expressive and cognitive processing. Through artistic engagement, individuals can access implicit emotional material that may be difficult to articulate verbally, especially in cases of trauma, anxiety, or alexithymia. The use of imagery, color, and form supports the encoding and restructuring of emotional experiences, contributing to adaptive regulation strategies.

Recent empirical studies indicate that art therapy significantly reduces stress and enhances emotional regulation capacities. For example, recent findings demonstrate that participation in art-making activities is associated with decreased cortisol levels and improved psychological well-being (Kaimal et al., 2016). Systematic reviews further confirm that art therapy contributes to emotion regulation through mechanisms such as symbolic expression, sensory engagement, and cognitive reappraisal (Haeyen et al., 2020; Schouten et al., 2018).

Furthermore, the repetitive and immersive nature of artistic activity can induce flow states, characterized by focused attention and reduced self-referential thinking, which further contributes to emotional stabilization. In group settings, shared artistic

experiences also promote emotional validation and interpersonal support, reinforcing regulatory processes.

Overall, art therapy serves as a multidimensional tool for emotional processing, integrating experiential, cognitive, and physiological pathways to enhance emotional well-being and resilience.

10. Discussion

10.1. Introduction to the discussion

The findings of this integrative review substantially confirm that psychology is not merely an ancillary or complementary discipline to art therapy but truly constitutes its intellectual and conceptual core. This observation, far from being trivial, has profound implications for how art therapy is practiced, taught, and evaluated. In this section, we develop in detail the four significant ways in which the integration of psychological principles enriches and strengthens art therapy practice, before examining the limitations of our work and the implications for future research.

Importantly, the integration of recent empirical findings strengthens the evidence base supporting art therapy as an effective, multidimensional intervention. Recent meta-analyses and systematic reviews (Haeyen et al., 2020) confirm that art therapy produces measurable psychological and physiological benefits, reinforcing its relevance within evidence-based mental health practice.

10.2. The fundamental contributions of psychology to art therapy

10.2.1. First contribution: Psychology provides explanatory mechanisms

One of the major challenges that art therapy has historically faced is that of scientific legitimacy. For a long time, the benefits of art therapy were often described in vague, intuitive, or even mystical terms: one spoke of the "healing power of art," of "liberating creativity," or of the "expression of the soul." These formulations, although poetic and evocative, do not constitute a solid foundation for a professional practice integrated into the contemporary mental health field, which demands precise, falsifiable explanations based on empirical evidence.

The fundamental contribution of psychology is to provide a language and a conceptual framework allowing us to precisely describe why and how an art therapy intervention produces its effects. Rather than attributing improvement to a magical property of art, the clinician can now articulate specific mechanisms of change, grounded in psychological research.

Consider the example of a client suffering from post-traumatic stress disorder (PTSD) who, after several art therapy sessions, shows a significant decrease in symptoms of hypervigilance and flashbacks. A non-psychological explanation might simply say: "Art allowed them to express their trauma." In contrast, a psychologically informed explanation will detail several potential mechanisms:

Activation of emotional regulation circuits: The repetitive and rhythmic gestures involved in artistic creation (kneading clay, repetitive shading) can stimulate the parasympathetic nervous system, responsible for "rest and digest," and thus reduce

the activation of the sympathetic system (responsible for the "fight or flight" response), which is chronically hyperactive in PTSD. Neuroscience studies, like those cited earlier (King et al., 2019), show that these activities can modulate the activity of the amygdala, the brain's fear center. More recent neuroimaging studies (Sacheli et al., 2022; Kaimal et al., 2016) have replicated and extended these findings, showing dose-dependent cortisol reduction and amygdala deactivation (Maddox et al., 2024).

Cognitive restructuring through visual metaphors: The client may draw their trauma not as a literal reproduction, but through metaphors (e.g., a devastated landscape and a monster and a cage). By working on this image with the therapist, they can gradually modify it (adding light, opening the cage and taming the monster). This process of image transformation is significant: it is a form of cognitive restructuring, where the rigid, frozen mental schema of the trauma begins to loosen and open to new possibilities (Pifalo, 2007).

Reinforcement of adaptive behaviors: For this same client, simply attending sessions regularly and engaging in an activity despite exhaustion and avoidance is an adaptive behavior. The positive reinforcement provided by the therapist (encouragement and recognition of the work accomplished) and by the activity itself (satisfaction of creating and pride in the result) increases the likelihood that this engagement behavior will be maintained and generalized to other areas of life. This ability to articulate precise mechanisms is crucial for several reasons. Firstly, it allows the therapist to better understand what is at play in the therapeutic relationship and to adjust their interventions more finely and strategically. Secondly, it is essential for communication with other health professionals and for research. Finally, it gives art therapy increased credibility in a healthcare environment increasingly focused on evidence (Oepen et al., 2025).

10.2.2. Second contribution: Psychology supports assessment and diagnosis

A second major contribution of psychology lies in the tools and frameworks it offers for clinical assessment. Historically, the interpretation of artistic productions in therapy has sometimes been subject to subjectivist excesses, where the clinician projected their own theories or prejudices onto the client's work, without rigorous methodology. Psychology, particularly psychometrics and psychopathology, provides essential safeguards.

The integration of psychological frameworks allows the artwork to be approached not as a symptom to be deciphered in a univocal manner, but as a rich and complex source of information that can be evaluated systematically and rigorously. It is not about "pathologizing" creative expression, but recognizing that formal choices, for example, the Formal Elements Art Therapy Scale (FEATS), provides a standardized method for evaluating formal art elements in clinical settings (colors, shapes, composition, line pressure) can provide valuable clues about the client's emotional and cognitive state. These clues, when cross-referenced with other sources of information (the client's history, behavior, verbalizations), contribute to a more complete clinical understanding.

10.2.3. Third contribution: Psychology enables treatment individualization

A third significant contribution of psychology is its capacity to inform and guide the individualization of treatment. No two clients are the same, and a therapeutic approach that works well for one individual may be ineffective or even harmful for another. Psychology provides a nuanced understanding of psychopathology and individual differences necessary to tailor interventions to specific client needs.

10.2.4. Fourth contribution: Psychology facilitates interprofessional communication

The fourth significant contribution of psychology is its role as a common language, facilitating effective communication and collaboration within multidisciplinary teams. In modern healthcare settings, art therapists rarely work in isolation. They are typically part of a team that may include psychiatrists, clinical psychologists, social workers, nurses, occupational therapists, and other professionals. For the team to function effectively and provide coordinated, holistic care, its members must be able to communicate clearly and understand each other's perspectives and contributions. As noted in recent implementation science reviews, the shared psychological vocabulary also facilitates integration of art therapy into stepped-care models.

A shared conceptual vocabulary

When art therapists articulate their work using psychological vocabulary, they build a bridge to other disciplines. Terms like "emotional regulation," "cognitive restructuring," "exposure," "behavioral reinforcement," "therapeutic alliance," and "attachment" are not exclusive to art therapy; they are fundamental concepts shared across the mental health field. By describing their interventions in these terms, art therapists can clearly convey the rationale behind their work and how it addresses the client's core treatment goals.

For example, instead of saying, "In my session, the client made a collage about their family," an art therapist in a team meeting might say, "In today's session, the client used a collage to explore unresolved feelings related to early family relationships, which seem to be activating current patterns of insecure attachment. This aligns with the psychodynamic goals we've been discussing." This framing immediately makes the therapeutic work understandable and relevant to the psychiatrist, the social worker, and the psychologist.

Enhancing integrated care

This shared language is essential for developing integrated treatment plans. If the team's goal is to help a client with anxiety develop better coping skills, the cognitive-behavioral therapist might work on thought challenging, while the art therapist might simultaneously work on using clay work as a grounding technique for managing acute anxiety. The art therapist can report back that the client is learning to use this skill, providing valuable feedback to the team about the client's progress. Furthermore, this communication is a two-way street. Understanding the psychological frameworks used by other team members allows the art therapist to better understand the overall treatment plan and to integrate their own work more seamlessly. A psychiatrist might explain the neurobiological basis of a client's medication and its effects on mood

or cognition, which can help the art therapist understand fluctuations in the client's engagement or emotional expression during sessions. This mutual understanding fosters a collaborative, rather than fragmented, approach to care.

10.3. Acknowledging the limitations of this review

While this review provides a comprehensive and integrative synthesis of the literature on psychology and art therapy, it is important to acknowledge its limitations transparently. Recognizing these limitations does not diminish the value of the work but rather contextualizes its findings and points the way toward more rigorous future research.

10.3.1. Limitations inherent in qualitative, integrative design

The primary limitation stems from our choice of methodology. We employed an integrative review design, which is ideal for synthesizing diverse types of literature (theoretical, qualitative, quantitative) to generate a comprehensive understanding of a complex phenomenon. However, this approach has inherent trade-offs.

Lack of quantitative effect sizes: Unlike a systematic review or meta-analysis, our review does not provide quantitative estimates of effect sizes. We cannot say, for example, that cognitive-behavioral art therapy is, on average, 20% more effective than psychodynamic art therapy for treating depression. We can identify the mechanisms and describe the outcomes reported in various studies, but we cannot statistically pool those results to arrive at a single, precise estimate of efficacy. This limits our ability to make definitive, evidence-based claims about which approaches are most effective for which conditions.

Inability to directly compare efficacy: Relatedly, because we did not perform a meta-analysis, we cannot directly compare the relative efficacy of different psychological approaches. Our review suggests that each approach has theoretical merit and empirical support, but it does not answer the crucial clinical question: "Which approach should I use for this client?" This question can only be adequately addressed through head-to-head comparative trials, which are still relatively rare in art therapy literature.

The studies included in this review involve a wide range of participants, including individuals with diagnosed mental health conditions (e.g., depression, PTSD, anxiety disorders and schizophrenia) as well as non-clinical samples (e.g., university students, healthy adults and community members). However, we did not systematically differentiate or separately analyze these two categories. The psychological mechanisms activated by art therapy, as well as the magnitude and nature of therapeutic outcomes, may differ significantly between clinical and non-clinical groups. For example, emotional regulation through art-making might serve as a preventive or wellness-enhancing strategy in non-clinical populations, whereas it may constitute a core treatment component for symptom reduction in clinical samples. Failing to distinguish between these contexts could limit the precision of our conclusions and their applicability to specific treatment settings. Future systematic reviews and meta-analyses should explicitly stratify findings by population type to provide clearer clinical guidance.

10.3.2. Absence of systematic study quality assessment and publication bias analysis

This review did not employ formal tools to assess the methodological quality of individual studies (e.g., risk of bias checklists, GRADE, or the Cochrane RoB tool) nor did it conduct statistical tests for publication bias (e.g., funnel plots, Egger's regression). Such procedures are standard in systematic reviews and meta-analyses but are less common in integrative reviews that aim to synthesize diverse theoretical and empirical literature. Nevertheless, the lack of quality appraisal means that studies with weaker designs (e.g., small sample sizes, lack of control groups and high risk of bias) received the same descriptive weight as more rigorous ones. Similarly, the absence of publication bias analysis leaves open the possibility that the literature we reviewed overrepresents positive or statistically significant findings, while null or negative results remain unpublished. Readers should therefore interpret the synthesized findings with appropriate caution. Future systematic reviews and meta-analyses on this topic are strongly encouraged to include formal quality assessment and publication bias detection to strengthen the evidence base for art therapy.

11. Conclusions

Psychology provides the conceptual backbone that allows art therapy to move beyond intuitive practice and become a structured, evidence-informed intervention. In this perspective, creative expression is not an end in itself but a vehicle through which well-established psychological processes are activated and harnessed for change. The review shows that emotional, cognitive, behavioral, and social dimensions of art therapy each rest on specific theories and growing empirical support, demonstrating that artmaking can regulate affect, reorganize meanings, reinforce adaptive habits, and strengthen relationships.

The proposed PDAT framework synthesizes these four dimensions into a single integrative model, clarifying how they interact in real clinical contexts and how they can be operationalized in research. For the field to advance, the authors argue that more rigorous randomized controlled trials, stronger training in psychological and neuroscientific concepts, and culturally sensitive studies are needed to test and adapt this model across settings. Ultimately, art therapy is portrayed as a discipline at the crossroads of science and art: by fully embracing its psychological foundations while honoring the uniqueness of artistic creation, it is positioned to offer truly holistic mental health care that addresses mind, body, and social context together.

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References

Abbing, A., Baars, E. W., de Sonneville, L., et al. (2019). The effectiveness of art therapy for anxiety in adult women: A randomized controlled trial. Frontiers in Psychology, 10, 1203. https://doi.org/10.3389/fpsyg.2019.01203

Barnish, M. S., & Nelson-Horne, R. V. (2023). Group-based active artistic interventions for adults with primary anxiety and depression. BMJ Open, 13(6), e069310.

Beck, A. T. (1976). Cognitive Therapy and Emotional Disorders. New York, NY: International Universities Press.

Bolwerk, A., Mack-Andrick, J., Lang, F. R., et al. (2014). How art changes your brain: Differential effects of visual art production and cognitive art evaluation on functional brain connectivity. PLOS One, 9(7), e101035. https://doi.org/10.1371/journal.pone.0101035

Bosgraaf, L., Spreen, M., Pattiselanno, K., et al. (2020). Art Therapy for Psychosocial Problems in Children and Adolescents: A Systematic Narrative Review on Art Therapeutic Means and Forms of Expression, Therapist Behavior, and Supposed Mechanisms of Change. Frontiers in Psychology, 11, 584685.

Braito, I., Rudd, T., Buyuktaskin, D., et al. (2022). Systematic review of effectiveness of art psychotherapy in children with mental health disorders. Irish Journal of Medical Science, 191(3), 1369–1383.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77–101.

Case, C., & Dalley, T. (2014). The Handbook of Art Therapy, 3rd ed. London: Routledge.

Chapman, L., Morabito, D., Ladakakos, C., et al. (2001). The effectiveness of art therapy interventions in reducing post-traumatic stress disorder (PTSD) symptoms in pediatric trauma patients. Art Therapy, 18(2), 100–104. https://doi.org/10.1080/07421656.2001.10129750

Du, S. C., Li, C. Y., Lo, Y. Y., et al. (2024). Effects of visual art therapy on positive symptoms, negative symptoms, and emotions in schizophrenia. Schizophrenia, 12(11), 1156.

Epp, K. M. (2008). Outcome-based evaluation of a social skills program using art therapy and group therapy for children on the autism spectrum. Children & Schools, 30(1), 27–36.

Freud, S. (1960). The Ego and The Id. New York, NY: Norton.

Gussak, D., & Rosal, M. L. (editors). (2016). The Wiley Handbook of Art Therapy. Hoboken, NJ: Wiley-Blackwell.

Haeyen, S. (2022). Effects of arts and psychomotor therapies in personality disorders. Developing a treatment guideline based on a systematic review using GRADE. Frontiers in Psychiatry, 13, 878866.

Haeyen, S., van Hooren, S., & Hutschemaekers, G. (2020). Benefits of Art Therapy in People Diagnosed with Personality Disorders: A Quantitative Survey. Frontiers in Psychology, 11, 686. https://doi.org/10.3389/fpsyg.2020.00686

Han, B., Jia, Y., Hu, G., et al. (2024). Effects of visual art therapy on adults with depressive symptoms: A systematic review and meta-analysis. International Journal of Mental Health Nursing, 33(5), 1183–1196.

Hass-Cohen, N., & Findlay, J. C. (2015). Art Therapy and the Neuroscience of Relationships, Creativity, and Resiliency. New York, NY: Norton.

Hayes, S. C., Luoma, J. B., Bond, F. W., et al. (2006). Acceptance and commitment therapy: Model, processes and outcomes. Behaviour Research and Therapy, 44(1), 1–25. https://doi.org/10.1016/j.brat.2005.06.006

Hinz, L. D., Rim, S., & Lusebrink, V. B. (2022). Clarifying the Creative level of the Expressive Therapies Continuum: A different dimension. Arts in Psychotherapy, 78, 101896.

Holt, E., & Kaiser, D. H. (2009). The first step series: Art therapy for early substance abuse treatment. The Arts in Psychotherapy, 36(4), 245–250. https://doi.org/10.1016/j.aip.2009.05.004

Kaimal, G., Ray, K., & Muniz, J. (2016). Reduction of cortisol levels and participants' responses following art making.

Art Therapy, 33(2), 74–80.
Kandel, E. R. (2012). The Age of Insight: The Quest to Understand the Unconscious in Art, Mind, and Brain. Westminster, MD: Random House.
Kang, S. J., Pei, C. Z., Lee, D. H., et al. (2023). A pilot randomized clinical trial of biomedical link with mental health in art therapy intervention programs for alcohol use disorder: Changes in NK cells, addiction biomarkers, electroencephalography, and MMPI-2 profiles. PLoS One, 18(5), e0284344. https://doi.org/10.1371/journal.pone.0284344
Kapitan, L. (2010). Introduction to Art Therapy Research. New York, NY: Routledge.
King, J. L., Kaimal, G., Konopka, L., et al. (2019). Practical Applications of Neuroscience-Informed Art Therapy. Art Therapy, 36(3), 149–156. https://doi.org/10.1080/07421656.2019.1649549
Lakoff, G., & Johnson, M. (1980). Metaphors We Live By. Chicago, IL: University of Chicago Press.
Linehan, M. (1993). Cognitive-Behavioral Treatment of Borderline Personality Disorder. New York, NY: Guilford Press.
Linehan, M. (2020). DBT Skills Training Manual, 2nd ed. New York, NY: Guilford Press.
Lusebrink, V. B. (2004). Art therapy and the brain: An attempt to understand the underlying processes of art expression in therapy. Art Therapy, 21(3), 125–135. https://doi.org/10.1080/07421656.2004.10129496
Maddox, G. A., Bodner, G. E., Christian, M. W., et al. (2024). Effectiveness of visual arts therapy for traumatic experiences: A systematic review and meta-analysis. Clinical Psychology and Psychotherapy, 31(4), e3041.
Malchiodi, C. A. (2012). Handbook of Art Therapy, 2nd ed. New York, NY: Guilford Press.
Malchiodi, C. A. (2020). Trauma-Informed Art Therapy. In: Malchiodi, C. A. (editor). Handbook of Expressive Arts Therapy. Guilford Press. pp. 142–154.
Moon, B. L. (2007). Dialoguing with dreams in existential art therapy. Art Therapy: Journal of the American Art Therapy Association, 4(3), 128–133.
Moon, C. H. (2002). Studio Art Therapy: Cultivating the Artist Identity in the Art Therapist. London: Jessica Kingsley.
Oepen, R., Roy, C., Gruber, H., et al. (2025). Conditions and effects of online creative arts therapies—A systematic review and change factor categorization. GMS Journal of Arts Therapies, 7, Doc04.
Pifalo, T. (2007). Jogging the cogs: Trauma-focused art therapy and cognitive-behavioral therapy with sexually abused children. Art Therapy, 24(4), 170–175. https://doi.org/10.1080/07421656.2007.10129471
Pounsett, H., Parker, K., Hawtin, A., et al. (2006). Examination of the changes that take place in an art therapy group. International Journal of Art Therapy, 11(2), 79–101.
Rogers, C. R. (1961). On Becoming a Person. Boston, MA: Houghton Mifflin.
Rosal, M. L. (2016). Cognitive-behavioral art therapy. In: Rubin, J. A. (editor). Approaches to Art Therapy: Theory and Technique, 3rd ed. Routledge. pp. 206–220.
Sacheli, L. M., Tomasetig, G., Musco, M. A., et al. (2022). The unexplored link between aesthetic perception and creativity: A theory-driven meta-analysis of fMRI studies in the visual domain. Neuroscience & Biobehavioral Reviews, 140, 104768. https://doi.org/10.1016/j.neubiorev.2022.104768
Safran, D. S. (2002). Art Therapy and AD/HD: Diagnostic and Therapeutic Approaches. London: Jessica Kingsley Publishers.
Şanlı, E. Ş., Bulguroğlu, M. M., & Akın-Sarı, B. (2025). Healing through art: A systematic review on effects of creative art therapies on body image disturbance. The Arts in Psychotherapy, 96, 102370.
Schouten, K. A., van Hooren, S., Knipscheer, J. W., et al. (2018). Trauma-focused art therapy in the Treatment of Posttraumatic Stress Disorder: A Pilot Study. Journal of Trauma & Dissociation, 20(1), 114–130.
Vygotsky, L. S. (1978). Mind in Society: The Development of Higher Psychological Processes. London: Harvard University Press.
Whittemore, R., & Knafl, K. (2005). The integrative review: Updated methodology. Journal of Advanced Nursing, 52(5), 546–553. https://doi.org/10.1111/j.1365-2648.2005.03621.x
Yalom, I. D., & Leszcz, M. (2005). The Theory and Practice of Group Psychotherapy, 5th ed. New York, NY: Basic Books.
Zhang, A., Luo, X., Lin, R., et al. (2024). Group arts therapies for patients with schizophrenia: A protocol of systematic review. BMJ Open, 14(6), e082076.
Zhang, X., Zhang, L., Yu, F., et al. (2023). Can brain activities of guided metaphorical restructuring predict therapeutic changes? Neuroscience, 531, 39–49.