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Longitudinal Analysis of Sandplay Therapy Outcomes in Children with ASD and ADHD

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Abstract

This study investigates the outcomes of Sandplay Therapy in children diagnosed with Autism Spectrum Disorder (ASD) and Attention Deficit/Hyperactivity Disorder (ADHD). Using a longitudinal design with five case studies, the research examined how the creative use of sand and miniatures enhances emotional expression, social engagement, and cognitive flexibility. Findings show consistent progress in emotional self-regulation, attention span, social interaction, and expressive language. Over time, children’s symbolic constructions became more coherent and meaningful, reflecting improved emotional integration and a stronger sense of self. Parents observed decreased anxiety and impulsivity, in agreement with therapeutic observations. The study underlines the value of Sandplay Therapy as an inclusive psycho-pedagogical approach that nurtures creativity, balance, and personal growth in children with developmental challenges.

Keywords: Sandplay Therapy; Autism Spectrum Disorder; ADHD; Emotional Development

Introduction

Sandplay Therapy is an expressive-symbolic psychotherapeutic method rooted in the work of Margaret Lowenfeld, who in the 1920s-1930s created the World Technique, allowing children to build symbolic worlds in a sand tray in order to express their inner experiences and conflicts without the constraints of verbal language (Lowenfeld, 1935/1979). Inspired by this technique, Dora Maria Kalff developed Sandplay Therapy in the 1950s, integrating Jungian concepts of the collective unconscious, archetypes, and the transcendent function (Kalff, 1980/2003). She emphasized the importance of a “free and protected space,” in which the child can activate self-healing resources without premature interpretation. In Sandplay Therapy, the child creates scenes in a sandtray using a variety of miniatures. This process, conducted within a safe and non-directive setting, activates the psyche’s natural capacities for self-regulation and healing. Weinrib (1983) describes the Sandplay process as an imagistic manifestation of the Self, in which symbolic transformation reflects inner development toward wholeness and integration. The therapist’s attentive silence and the environment’s creative freedom allow unconscious images to emerge that facilitate the integration of internal conflicts and the development of ego resources. Contemporary authors (Turner, 2017; Roesler, 2019) have highlighted that Sandplay creates a relational field that fosters profound psychic reorganizing. In recent decades, this method has proven particularly

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useful in interventions with children diagnosed with autism spectrum disorder (ASD) and attention-deficit/hyperactivity disorder (ADHD). Numerous studies have shown that these children present communication difficulties, elevated anxiety, and a reduced capacity for symbolization dimensions that can be effectively addressed through sandplay. Recent research by Kraus (2025) underscores the positive impact of Sandplay Therapy in reducing self-handicapping behaviors and improving quality of life in children with ASD, supporting the method's clinical relevance. Sandplay Therapy offers a space where nonverbal language, sensory experience, and the opportunity to create symbolic scenarios become key instruments for developing relating capacities, emotional expressiveness, and self-regulation. The present article aims to highlight the outcomes of Sandplay Therapy interventions with children with ASD and ADHD, based on five case studies carried out over a two-year period. The analysis examines how the process of symbolic play contributes to reduced anxiety, the emergence of functional communication, and the consolidation of identity, providing relevant data for contemporary psychological and psychoeducational practice. In recent years, research has demonstrated that Sandplay Therapy has significant effects in addressing emotional and behavioral symptoms in children with ADHD and ASD. A recent review shows that Sandplay Therapy, as a complementary treatment for ADHD, reduces hyperactivity, impulsivity, and inattention (Yuxi, R., Jia, S., Liu, C., Li, S., & Long, Y., 2024). Likewise, a 2024 systematic study indicates that in children with ASD, Sandplay Therapy (Yuxi, Ren & Shuqi, Jia & Cong, Liu & Shufan, Li & Yueyu, Long) significantly improves social communication deficits, drawing on multiple clinical studies ($n = 12$), with notable effects on social interaction symptoms when therapy is applied once a week over a sufficiently long cycle. A recent meta-analysis by Freedle, Wiersma, and Freedle (2022) examined 40 studies from eight countries including children with ADHD as part of their clinical profiles and found a large overall effect (Hedges' $g \approx 1.10$) for internalizing symptoms such as anxiety and withdrawal, and for externalizing symptoms, including hyperactive or impulsive behavior and ADHD. Findings from neuroscience elucidate how Sandplay stimulates neuropsychophysiological reorganization. According to Penfield's observations (1958), activation of the excitable cortex during hand movements plays an essential role in the sensory-motor awareness processes involved in Sandplay's symbolic experience. The symbolic images created in the sand become part of the child's "mental map," generating new neural pathways and promoting the integration of experiences into consciousness (Damasio, 2010; Gazzaniga, 2011). This process is supported by mirror neurons, which facilitate intersubjectivity and emotional resonance between child and therapist (Rizzolatti & Craighero, 2004). Hand movements essential to constructing scenes have a direct role in the development of language and thought (Wilson, 1999), which helps explain why, in many cases, children improve their verbal abilities during therapy. Thus, Sandplay simultaneously activates the body, emotions, and the prefrontal cortex, generating a complex integrative process at a nonverbal level and supporting neuroplasticity the brain's capacity to create new networks and remodel old patterns (Konorski, 1948; Doidge, 2007). The theoretical foundations of Sandplay Therapy derive from Jungian analytical psychology and Erich Neumann's developmental theory, which Dora Kalff integrated into a symbolic, transformative methodology. Neumann (1973) described ego formation as an archetypal process governed by the Self, manifesting through a succession of phases: the original unity (the primal mother-child relationship), separation and the polarization of opposites, psychic centering (constellation of the Self), and the final integration of opposites. Kalff (1980/2003) applied these principles in Sandplay practice, observing that the therapeutic process symbolically reproduces these stages. The tray

scenes reflect the psyche's natural movement from chaos to order, from fragmentation to wholeness, and the therapist becomes a witness to this transformation. Sandplay is therefore an experiential pathway of psychological maturation in which the child reintegrates split-off parts of the self and reconstructs inner order through the symbolic image.

This article combines psychological and neurobiological perspectives to show how Sandplay Therapy operates simultaneously at the symbolic level and on neural networks, becoming a complex and effective intervention method for the development of children with special needs.

Given these theoretical foundations and the research evidence, the present study seeks to explore the evolution and outcomes of Sandplay Therapy interventions in children diagnosed with ASD and ADHD, based on five longitudinal case studies spanning more than two years. The research questions include the extent to which therapy brings positive changes in psychological development, contributes to reducing anxiety, to the emergence of functional communication, and particularly to the enrichment and development of play and self-regulation.

Method

The present research is qualitative, descriptive, and longitudinal, built on five in-depth case studies conducted over a period of two years. The choice of a longitudinal design was grounded in the need to follow psychic, behavioral, and symbolic transformations over time through therapeutic intervention.

As an expressive-projective method, Sandplay Therapy allows the exploration of unconscious processes in their developmental dynamics; therefore, a one-time analysis would be insufficient to capture the depth of inner transformations (Kalff, 2003; Turner, 2017). The research design adheres to the principle of data triangulation (Denzin, 2012), combining clinical observations, qualitative analysis of sandtray series, and interpretation of a parent questionnaire developed on the basis of the ADOS-2 (Lord et al., 2012) and ABAS-3 (Harrison & Oakland, 2015) instruments. Thus, the analysis integrates the symbolic dimension of the therapeutic process with behavioral and functional data reported by the family, within an integrative psychoeducational framework.

Participants:

The research included five children aged 6 to 11 years:

- diagnosed with Autism Spectrum Disorder (ASD): three cases (including one child with Asperger's syndrome), and
- Attention-Deficit/Hyperactivity Disorder (ADHD): two cases (one predominantly hyperactive-impulsive, and another with sensory integration difficulties).

All participants were enrolled in mainstream schools and received Sandplay Therapy exclusively, with no concurrent therapies. The children came from balanced family environments, with parents involved in the therapeutic process through indirect observation and periodic feedback. Informed consent was obtained for all participants, and identities were anonymized in accordance with ethical standards in psychological research.

The intervention took place under standardized conditions, in a consistent therapeutic setting, with a frequency of one session per week, each session lasting 45–50 minutes. The therapeutic space was structured according to Dora M. Kalff's model (1980/2003): a sandtray (50 × 70 × 7 cm), natural sand, and miniatures representing people, animals, buildings, natural objects, mythic and religious elements. The therapeutic process was photo-documented after each session, and analysis was conducted on the series of trays (from the first to the final), tracking central themes, recurring symbols, and spatial transformations.

For each case, three representative trays (initial, intermediate, and final) were selected and analyzed in accordance with the developmental stages described by Kalff, who conceptualized the symbolic process as a succession of universal stages of psychological development that reflect the natural movement of the unconscious toward integration and wholeness. These stages manifest thematically in the child's play and can be observed in the organization, themes, and symbolism of the sand trays. In analyzing the therapeutic process, Kalff distinguishes two complementary directions:

- the development of the psyche, belonging to a pre-ego, archaic level dominated by the collective unconscious, and
- the development and maturation of the ego, reflecting the emergence of consciousness, differentiation, and relational integration.

Starting from these two dimensions, in the present research we adapted the names of the symbolic stages described by Kalff (1980/2003), using terminology that allows the phenomenological observation of the process in the children's trays:

- Chaotic phase, corresponding to pre-ego stages and expressing sensory discharge and fusion with the environment;
- Conflictual phase, reflecting the emergence of dualities and the beginnings of ego differentiation;
- Transformative phase, marking partial integration and the emergence of symbolic order;
- Wholeness phase, signifying inner coherence and harmony, ego consolidation, and the formation of the Ego-Self axis.

This correspondence was used as an interpretive tool in the longitudinal analysis of the tray series, to track the symbolic thematic evolution of the scenes built by the subjects over the course of the therapeutic processes. This trajectory is congruent with Jung's principle of the transcendent function (1959), which represents the natural process of integrating psychic opposites toward inner balance. In addition to clinical observation, a Parent Questionnaire was used, constructed on the basis of the Autism Diagnostic Observation Schedule - Second Edition (ADOS-2; Lord et al., 2012) and the Adaptive Behavior Assessment System -Third Edition (ABAS-3; Harrison & Oakland, 2015), adapted to the research objectives. The questionnaire includes 30 items grouped into six functional domains: emotional, social, communication, cognitive and executive functions, symbolic play and creativity, autonomy and adaptation.

Each item was rated on a 5-point Likert scale, where 1 indicates absence of the behavior and 5 indicates frequent presence. Assessment was conducted at four time points: at the beginning of the program (T1), after 6 months (T2), 12 months (T3), and 24 months of therapy (T4). The instrument's purpose was to capture parental perceptions of the child's progress, not to obtain standardized scores, but rather to correlate changes observed in daily life with the symbolic transformations reflected in the therapeutic process.

Internal consistency of responses was verified through convergent item analysis, and interpretive reliability was ensured by data triangulation (Denzin, 2012; Creswell & Poth, 2018), correlating questionnaire results with clinical observations and symbolic analysis of Sandplay trays. This approach permitted internal validation of the data and yielded a coherent perspective on children's emotional, cognitive, and relational development.

Data analysis was integrative, qualitative-quantitative, allowing both in-depth exploration of symbolic processes in Sandplay and quantification of observed progress in emotional, cognitive,

and social domains. The qualitative analysis targeted the symbolic content of Sandplay scenes, identifying themes, stages, and processual transformations (Kalff, 2003; Turner, 2017; Roesler, 2019). Descriptive quantitative analysis was conducted based on parent questionnaire scores, calculating domain means and comparing initial and intermediate trends with final ones. Interpretation sought symbolic correlation between developments in sandplay and changes observed in the subjects' real lives. This integrative approach respects the principle of the psychic behavioral correspondent (Kalff, 2003; Turner, 2017), according to which transformations in the symbolic world of play reflect processes of internal reorganization of the ego, verifiable behaviorally.

Coding method and validation of symbolic themes:

Qualitative analysis of the tray series followed a thematic coding procedure based on the interpretative phenomenological method (Smith & Osborn, 2015), adapted to the symbolic context of Sandplay Therapy. Each scene was analyzed by identifying meaning units and classifying them into recurring thematic categories, subsequently grouped according to the four stages described by Kalff (1980/2003). The terms chaotic, conflictual, transformative, and wholeness phases were operationalized from the Neumann-Kalff theory to code symbolic themes in this study, according to the correlations in the table below:

Table 1. Comparative Stages of Symbolic Development in Sandplay Therapy

No.	E. Neumann's stages	D. Kalff's stages	Symbolic theme	Brief description	Observable examples in trays	
1	Primary relationship (mother-child unity)	Original fusion with the archetypal mother	unity;	Chaotic phase	Sensory, undifferentiated level; pre-egoic expression without spatial organization	Mixed sand and water, excessive flooding, lack of boundaries, repetitive movements
2	Separation of the cosmic parents	Differentiation; emergence of opposition and dualities	Conflictual phase	Conflictual phase	Confrontation of opposites such as good-evil or order-disorder; early structuring tendencies	Divided zones, rivers or barriers, paired opposites, combat or tension symbols
3	Psychic centering (constellation of the Self)	Formation of an inner center; emergence of order	Transformative phase	Transformative phase	Internal reorganization through balance and reconciliation; integration of polarities	Bridges, roads, geometric layouts, central buildings, temples, mandala-like forms
4	Ego integration / individuation	Experience of wholeness; harmony of opposites	Wholeness phase	Wholeness phase	Achievement of internal unity, balance, and cooperation within the symbolic world	Family or community scenes, circular arrangements, central light, equilibrium among figures

Source: Adapted from E. Neumann (1959) and D. M. Kalff (2003).

Findings and discussion

Case Study 1: Child, 6 years, ASD

At the beginning of preparatory (kindergarten) class, the child displayed major communication difficulties and stereotyped behaviors. The first trays were dominated by sand movement, without symbolic structure, reflecting a phase in which the psyche functions in a state of undifferentiation. Experiences are sensory, archaic, and dominated by direct contact with matter. In the first tray, the sand is sifted; objects are scattered without connection: a white bridge, an overturned hourglass, a footballer, two vessels, and a watering can. After eight months of therapy, the child begins to use the vessels to transfer sand, a form of repetitive play with self-regulatory meaning. “Pretend play,” essential for psychological development (Gibson et al., 2021), appears marking the shift from sensory action to symbolic representation. In one tray, the child holds an orange dragon figurine, a symbol of unconscious drives and creative force. According to Jung (1959), the dragon is an archetypal image of psychic shadow contents which, when confronted and integrated into consciousness, bring new qualities into the psyche, reflected in behavior. The symbolic process is supported by the therapist’s witnessing function (Turner, 2017), allowing these contents to emerge without direct interpretation. After two years of therapy, the child develops receptive language, begins to respond to requests, and shows increased interaction. Final scenes include caregiving images such as feeding a doll, burying a precious object symbol of existing resources, autonomy, and ego development. The child’s symbolic evolution reflects the transition from pre-ego functioning dominated by sensory impulses and repetitiveness toward a coherent psychic organization supported by the development of symbolic function. Over the two-year therapeutic process, chaotic and fragmented experiences were transformed into meaningful symbolic representations with self-regulatory and emotional integrative function. Final scenes focused on caregiving, protection, and continuity indicate activation of the internal maternal function and the emergence of a relationally capable ego.



Figure 1. The three play scenes: initial, intermediate, and final

Case Study 2: Child, 7 years, ASD

At the outset of therapy, the child presented repetitive behaviors and echolalia. The first tray consisted exclusively of sand movement. In subsequent months, symbols of water and boundary appear vessels, fences, shells signaling differentiation between inside and outside. According to Winnicott (1971), such forms represent the construction of a “psychic container,” an essential condition for the emergence of the self. After 12 months, the child creates a scene with a house and a human figure sheltering from the rain. In Jungian symbolism, the house signifies the structure

of personality, and the roof represents thinking (Jung, 1959). After two years of therapy, trays include family scenes, animals in pairs, and the child spontaneously verbalizes: “This is the family.” The shift from chaos to order marks a profound internal reorganization, activating neural circuits for empathy and social recognition (Rizzolatti & Craighero, 2004). To illustrate the symbolic process, three representative images are included in the article:



Figure 2. Trays representing the beginning and the middle of the therapeutic process

Whereas at first the child interacted only by touching the sand and placing a magnifying glass over it as if signaling a need to “look more closely at what is here” the mid-process tray shows a world evincing confusion and uncertainty. In the midst of this crowded world, with objects placed in a repetitive order expressing the compulsivity specific to spectrum disorders, we see a figurine girl lying on a deck chair reminiscent of a hospital bed. In the last tray, the theme changes significantly, bringing other categories of figurines; now the child tells a brief story: “Friends came to the party, Garfield came too... where is the cake? So, he can make a wish.”



Figure 3. Tray created after two years of therapy

Between the second tray and the one created at two years there was a gradual transition toward order and meaning. The therapeutic process may certainly continue; nonetheless, a considerable difference has already been achieved. Parent interviews indicate improvements in communication and play: greater interest in storytelling and role play, reductions in echolalia and stereotyped behaviors.

Case Study 3: Child, 8 years, ADHD hyperactive

The child exhibited impulsiveness, difficulties with concentration, and oppositional behavior. The initial trays were fragmented, dominated by conflicts among war figures, fires, and monsters. According to Kalff (2003), this stage reflects the discharge of the ego's disorganized energy.



Figure 4. Early tray and mid-process tray

Fire and water appear in polarity, symbolizing the conflict between action and control. Jung (1960) regarded these elements as images of opposites that, through confrontation, may give rise to the transcendent function. In the first tray, fire is represented by a miniature cannonball figure, while in the second tray we see how, from the water as a symbol of the unconscious an island emerges to the surface, a piece of land on which the child leaves his imprint, as a sign of identity. After eighteen months, new elements appear, indicating that something is being built within that inner world. The child verbalizes: “They are all making peace now; they’re not fighting anymore.” On a behavioral level, noticeable improvement is observed in attention and school engagement, accompanied by a reduction in impulsivity. The family reports significant progress in their relationship with the child, achieving better communication and collaboration.



Figure 5. Trays after two years of therapy

In the final tray, the central scene is dominated by a “diamond,” as the child names the star-shaped figurine at the center of the tray a symbol of unity, clarity, and synthesis of opposites. From a Jungian perspective, the diamond is an image of the Self, representing the psyche's totality, where conflicting energies are transformed into light and coherence. Symmetrical forms, orderly lines, and the absence of conflict elements indicate the attainment of a stable ego structure and the consolidation of the Ego-Self axis. The child chooses white and precise geometric forms, reflecting inner refinement and psychic balance, a transformation from impulsivity to self-regulation and conscious control. Placed at the center of the tray, this diamond becomes the visual expression of the transcendent function (Jung, 1960), whereby opposites such as action-rest, aggression-cooperation, fire-water are brought together in a harmonious, integrated form.

Case Study 4: Child, 10 years, ADHD

The child comes to therapy due to adaptation difficulties in lower secondary school activities, displays disruptive behaviors during classes, and has difficulties with peers for this reason. Early trays are marked by rapid movements, accumulation of figurines, and lack of spatial structure. The child seeks continual stimulation, moving from one image to another without closure. Sand functions as a sensory discharge and calming element (Roesler, 2019). After eight months, the theme of “cleaning” emerges the child works the sand with his hands, creating cycles of control and repair, until forming a mountain inside which he places a house, saying “this is home.” This sequence expresses emerging self-regulation, a process Porges (2011) describes as a shift from sympathetic activation, fight-flight, to ventral vagal activation calm-connection. In the final trays, human figurines interact harmoniously; scenes of cooperation and protection appear. In Jungian terms, the symbols of house and road suggest ego integration in reality and the emergence of a linking function (Jung, 1959). The images show how the child accessed inner resources to find his own solution for adapting to external demands.



Figure 6. Trays from the therapeutic process

We observe how chaos is transformed into something stable like a mountain, a symbol of alignment along the Ego-Self axis. Alongside the mountain within which he places a house the child brings a school figurine; in other words, he expresses the need to bring the familiar into the place where he is challenged to adapt. The golden cup in front of the school expresses desired success and symbolically represents a vessel, that of inner self-regulation. Parental feedback confirms the child’s psychic reorganization.

Case Study 5: Child, 10 years, Asperger syndrome

The child does not present difficulties in self-regulation; however, he exhibits a high level of anxiety, produces contextually irrelevant verbalizations, and refuses to attend sports clubs despite parental encouragement. He has been diagnosed with Asperger’s Syndrome and has not received any other form of therapy apart from Sandplay. The initial stage is dominated by a mechanical world: robots, cars, and metallic structures. The absence of living elements indicates affective depersonalization. Kalff (2003) describes such imagery as characteristic of the pre-symbolic phase, in which the ego remains confined to rationality. After several months, scenes of destruction, death, and urban chaos emerge, corresponding to the confrontation with the shadow (Jung, 1960) the rejected aspects of the psyche. Gradually, the symbols become organized into heroic narratives: Ben Ten, the queen, and the compass of time represented through the figures chosen by the child. The compass and the path become images of inner orientation and self-directed transformation. Throughout the sessions, the child narrates and engages actively in play, creating complex stories that mirror internal tension and intrapsychic conflict.



Figure 7. Trays from the therapeutic process

In the final trays, a vivid image of connection with others emerges: the theme is an amusement park where multiple characters and footballers are together. Parent interviews and questionnaires show that initial symptoms have diminished; inappropriate verbalizations are no longer present, and the child seeks closeness and contact with peers.



Figure 8. Final tray of the process

After two years, the child becomes sociable, communicative, and involved in extracurricular activities, according to parent feedback questionnaires.

A cross-case analysis of the five studies highlights a common dynamic of the therapeutic process, in which sandplay becomes the medium through which children with ASD and ADHD structure inner experiences and develop symbolic function. The transformations observed correlate both with the stages of psyche and ego development described by Dora Kalff (2003) and with the neuropsychological and relational dimensions identified by Porges (2011) and Rizzolatti and Craighero (2004).

Symbolically, all participants followed a similar trajectory from the chaotic phase, characterized by repetitive movements, sensory manipulation of sand, and absence of symbolic structure, to the conflictual phase, marked by polarities and themes of confrontation. Subsequently, the therapeutic scene evolved toward the transformative phase, in which coherent constructions, roads, bridges, and symbols of inner order appear. The final wholeness phase was characterized by harmonious images families, houses, everyday-life scenes reflecting ego integration and stabilization.

This sequence confirms the Kalffian model of the psyche's movement from undifferentiated unconsciousness toward an integrating center, visually expressed through the emergence of symbols of wholeness (Kalff, 2003; Turner, 2017). Scenes such as "the reunited family," "the diamond," or "the house inside the mountain" indicate the emergence of the transcendent function

(Jung, 1960), through which inner opposites fear courage, action rest, isolation relationship are reconciled in a stable symbolic form. Table 2 synthesizes the symbolic and behavioral evolution of the five children included in the analysis, correlated with the stages of psychic development formulated by Neumann (1973) and reinterpreted by Dora Kalff (1980/2003) within Sandplay Therapy. A common trajectory can be seen from chaotic, sensory expressions to coherent symbolic organizations, corresponding to the constellation of the Self and the integration of the ego. Symbolic transformations were congruent with clinically and parent-reported behavioral advances, confirming the longitudinal coherence of the healing process.

Table 2. Symbolic and Behavioral Evolution Correlated with Neumann–Kalff Stages

Case	Diagnosis	Initial phase	Intermediate phase	Final phase	Progress per Parent Questionnaire	Theoretical correlation (Neumann–Kalff)
1	ASD (6 yrs)	Chaotic phase: sensory movements, dispersion, sand–water mixing	Conflictual phase: dualities, oppositions (life–death, light–dark)	Wholeness phase: caregiving images, maternal figures, family	Receptive language, eye contact, increased autonomy	From original unity to ego integration; restoration of mother–child relation and emergence of symbolic order
2	ASD (7 yrs)	Sensory chaos, lack of structure	Differentiation: fences, pairs, spatial demarcations	Family, party scene: cohesion and integration	Reduced echolalia, increased social interaction	From undifferentiation to psychic centering; formation of linking symbols and relation with the other
3	ADHD (8 yrs)	War scenes, conflict, tension	Transformative phase: reconciliation of fire–water, bridges between zones	Central diamond, harmony: symbol of integrating Self	Greater self-control, reduced impulsivity	From conflictual polarity to Self-constellation; reconciliation of opposites
4	ADHD (10 yrs)	Agitation, chaos, no center	Ordering: house on mountain, spatial structuring	Cooperation, golden cup: symbol of success and integration	School adaptation, positive relating	From psychic dispersion to centering and integration; emergence of a stable, cooperative ego
5	Asperger (10 yrs)	Robots, mechanical structures, rigid control	Confrontation scenes: inner conflict between reason and emotion	Park, play, cooperation: relationship and spontaneity	Increased empathy and social participation	From defensive control to symbolic harmonization; affective integration and flexibilization of rigid structures

Source: Author’s data, 2025, adapted from E. Neumann (1959) and D. M. Kalff (2003).

Results from the parent questionnaire confirm advances observed clinically and symbolically. Comparing the start and end of the two-year therapy:

- Significant increases in functional and social communication, with parents reporting spontaneous dialogue and eye contact;
- Decreased stereotypies and echolalia in children with ASD;
- Reduced impulsivity and improved concentration in children with ADHD;
- Enhanced emotional self-regulation and frustration tolerance, observable in calmer behavior, capacity to wait, and collaboration;
- Increased interest in role play and social relationships, reported in questionnaires and confirmed by final symbolic scenes.

In parallel, qualitative analysis of trays indicates convergence between symbolic and real-life transformations. Children who initially engaged in disorganized, repetitive play began creating coherent scenes, expressing emotions, and showing prosocial behavior. According to Roesler (2019), this parallel between symbolic and behavioral worlds reflects self-regulatory mechanisms and internal reorganization activated by symbolic experience. Although the process's overall dynamic was similar, differences appeared between children with ASD and those with ADHD. In children with ASD, symbolization developed more slowly, with the first months dominated by sensory activities and repetition. Once pretend play emerged, transformations accelerated, suggesting reconnection between sensory and cognitive levels (Gibson et al., 2021). In contrast, among children with ADHD, the conflictual phase was more intense and marked by dynamic images wars, fire, confrontations. The symbolic process facilitated a shift from impulsive action to internal structure, visible in the appearance of symmetrical constructions and central symbols the “diamond,” the “mountain house.” Both groups ultimately presented themes of reconciliation, caregiving, and cooperation, indicating significant changes toward psychological development.

Conclusion

Study results confirm the effectiveness of Sandplay Therapy in supporting emotional, cognitive, and relational development in children with ASD and ADHD. Longitudinal analysis demonstrated that the process of symbolic play activates deep self-regulatory mechanisms, facilitating a transition from sensory and chaotic actions to coherent, organized, meaningful representations. Convergent observations clinical, symbolic, and parental support the view that internal transformation is a process of reorganizing inner dynamics, congruent with Dora Kalff's (1980/2003) description of the psyche's movement from chaos to order, from separation to integration. Notably, children with ASD showed visible progress in the emergence of functional communication and symbolic play, while children with ADHD developed better impulse control and increased capacity for concentration. These results support the inclusion of Sandplay Therapy in psychoeducational programs for children with special educational needs (SEN), as a complex method that integrates expressive-symbolic, bodily, and neuropsychological dimensions. Future research may target sample expansion and the development of psychoeducational programs that incorporate such expressive-symbolic sessions in the remediation of children with ASD and ADHD.

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