ART THERAPY IN REDUCING PSYCHOSOCIAL PROBLEMS AMONG CHILDREN AND ADOLESCENTS

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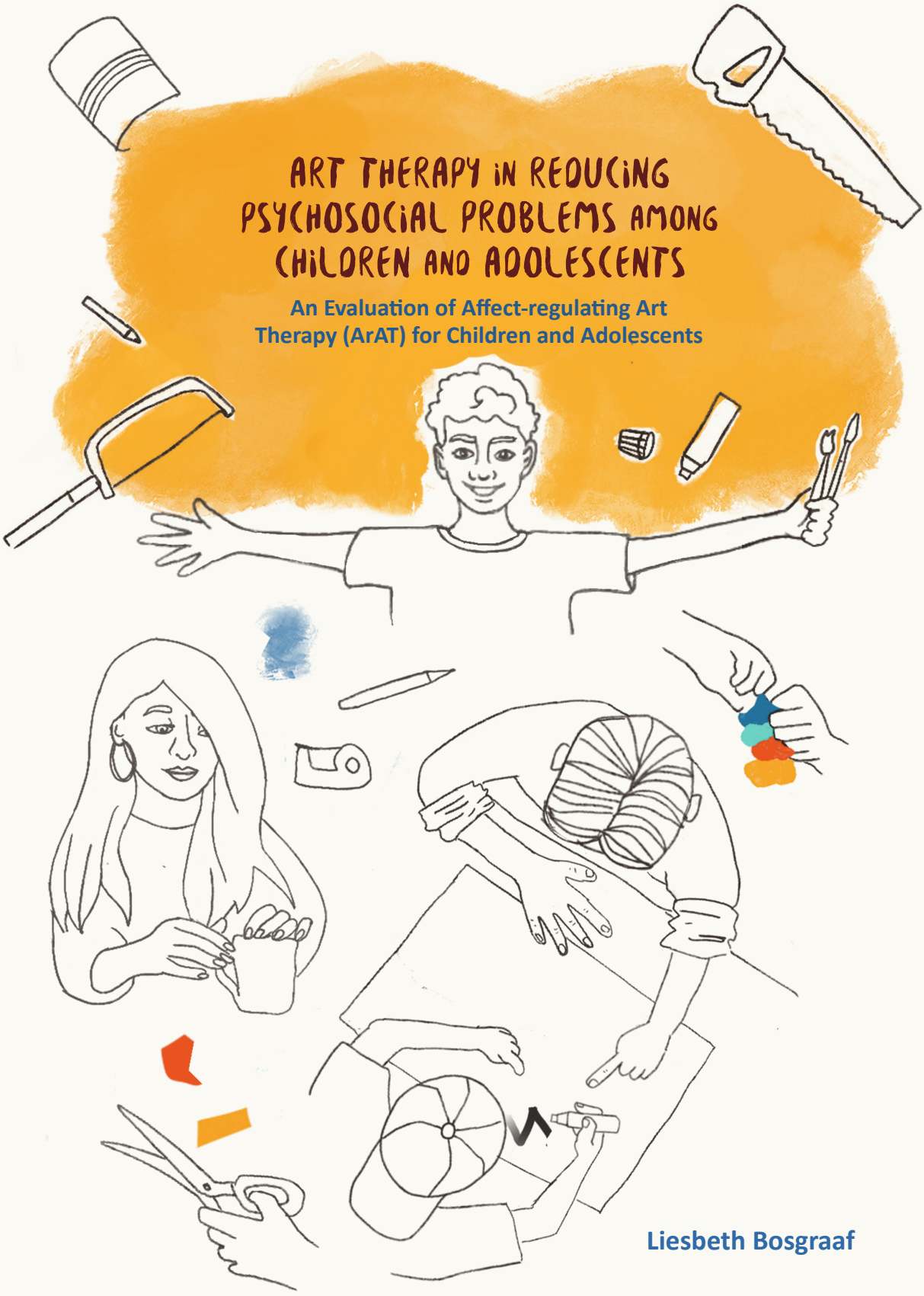

Liesbeth Bosgraaf

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Open Universiteit Nederland, Faculteit Psychologie, Heerlen, Nederland
NHL Stenden Hogeschool, Academie Gezondheidszorg & Welzijn, Vaktherapie, Leeuwarden, Nederland
Alliade, Afdeling Praktijkgericht Wetenschappelijk Onderzoek (PWO), Alliade Zorggroep, Beetsterzwaag, Nederland
FVB Kennisnetwerk Affectregulerende Vaktherapie (arvt.nl)

Art Therapy in Reducing Psychosocial Problems among Children and Adolescents

An Evaluation of Affect-Regulating Art Therapy (ArAT) for Children and Adolescents

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Promotor
Prof. dr. S.A.H. van Hooren, Open Universiteit

Copromotores
Dr. M. Spreen, Rijksuniversiteit Groningen
Dr. K. Pattiselanno, NHL Stenden Hogeschool

Beoordelingscommissie
Prof. dr. S. Bogaerts, Tilburg University
Prof. dr. C.T.W.M. Vissers, Radboud Universiteit
Prof. dr. B. Dandachi-Fitzgerald, Open Universiteit
Dr. E. Simon, Open Universiteit

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CHAPTER 1

General Introduction

Psychosocial problems in children and adolescents are becoming increasingly prominent and concerning on a global scale. These problems have a significant impact on the well-being of young individuals worldwide (Lancet, n.d.; WHO, 2021; Piao et al., 2022). Often, psychosocial problems experienced by children and adolescents are categorized into three main domains: emotional, behavioral, and social problems (Ogundele, 2018). Emotional problems involve internal experiences of distress, such as anxiety, depression, or mood problems. Children experiencing emotional problems may display symptoms like persistent sadness, withdrawal, fearfulness, or excessive worrying (Cosgrove et al., 2010; Graber, 2013). On the other hand, behavioral problems encompass external manifestations of difficulties, including disruptive or aggressive behaviors. Children with behavioral problems may exhibit behaviors such as aggression and defiance (Liu, 2004; Mathyssek et al., 2012; Nivard et al., 2016). Social problems revolve around challenges in forming and maintaining relationships, encompassing issues related to social skills, peer interactions, and family dynamics. Children experiencing social problems may struggle with making friends, engaging in appropriate social behaviors, or navigating conflicts within their social networks (Forns et al., 2011; Ogundele, 2018; Tandon et al., 2009).

Psychosocial problems can be seen as a broad category of challenges related to an individual's psychological and social well-being. The manifestation of psychosocial problems can be intertwined with the symptomatology of diagnosed mental health disorders, leading to heightened severity and complexity of presentations (Jacob, 2013; Pirkola et al., 2005). This so-called 'continuum concept of mental health and mental illnesses' assumes one dimension from non-existent psychiatric symptoms to light, subclinical, and severe psychiatric symptoms. The length of time a problem lasts and its intensity are the primary criteria for determining the need for medical or psychological care (Dominguez et al., 2009). This applies regardless of the specific symptoms or issues the individual faces (McGorry & Van Os, 2013).

The prevalence of psychosocial problems among children and adolescents worldwide can vary depending on various factors, including geographic location, socio-economic conditions, cultural backgrounds, and the availability of mental healthcare. There is no uniform global prevalence rate for psychosocial problems, but estimates are based on research in various countries and regions. Global prevalence rates range from 6.7% to 13.4% (Erskine et al., 2016; Polanczyk et al., 2015). Recently, it was found that globally, 8.8% of children and adolescents have received diagnoses for various mental disorders (Piao et al., 2022).

Psychosocial problems represent a critical concern across the lifespan, with manifestations observed from early childhood to young adulthood. These issues necessitate a nuanced understanding of their onset and evolution (Costello et al., 2005). Early childhood is a pivotal period when certain psychosocial challenges come to light. During this phase, the emergence of sleep disturbances, separation anxiety, and developmental disorders may occur (Avenevoli et al., 2015). The elementary school years mark a critical juncture, witnessing the prevalence of ADHD, anxiety disorders, depression, and behavioral disorders (Maughan et al., 2004). Adolescence introduces

its own set of complexities, with depression, eating disorders, suicidal ideation, and behavioral issues becoming increasingly salient (Nock et al., 2007).

Understanding the etiology of these psychosocial problems is imperative for effective prevention, intervention, and treatment strategies. The causes of these issues are intricate, involving a complex interplay of biological, psychological, and social factors (Kessler et al., 2005; Thapar et al., 2012; Vostanis, 2006). Genetic predisposition, neurobiological processes, personality traits, and environmental influences collectively contribute to the emergence of these problems (Caspi et al., 2003; Kendler et al., 2003; Rutter, 2006; Stein et al., 2010). Importantly, emotion regulation, the ability to effectively control emotions, plays a central role in the onset, development, and severity of psychosocial problems (Aldao et al., 2015; Berking & Wupperman, 2012; Gross, 2015).

Psychosocial Problems and Emotion Regulation

Deficits in emotion regulation have been studied as an important factor and promising treatment target in a broad range of psychosocial problems (Berking & Wupperman, 2012). Children and adolescents with limited emotion regulation skills often struggle with effectively handling negative emotions (Aldao et al., 2016; Kring & Sloan, 2010). Furthermore, emotion regulation problems can lead to behavioral problems such as aggression and impulsivity (Eisenberg et al., 1998), and these behavioral issues can develop into disorders, such as conduct disorder (Hawes et al., 2014). Additionally, children and adolescents with emotion regulation difficulties often show social problems. Studies have demonstrated that difficulties in regulating emotions can lead to issues in interpersonal relationships, including conflicts and reduced social support (Aldao et al., 2016). Also, research has shown that children and adolescents with emotion regulation problems often face an increased risk of involvement in bullying behavior, further exacerbating their social challenges (Araos, 2018). Conversely, and on the other side of the coin, recent research has underscored the contribution of effective emotion regulation skills to enhancing social interactions and relationships among children and adolescents (Matchett et al., 2020).

The development of emotion regulation can be complex, and the role of affect regulation is considered underlying to emotion regulation. That is why some perspectives suggest that affect regulation serves as a foundational skill upon which more specific emotion regulation abilities are built (Berking et al., 2014; Bradley et al., 2011; Fonagy et al., 2018; Hill, 2015; Schore & Schore, 2007). Affect is defined as an intrapersonal or bodily positive or negative affective state (Barrett & Bliss-Moreau, 2009; Shiota et al., 2021; Thompson, 2011), and affect regulation involves the ability to modulate these states adequately (Fonagy & Target, 2002). Emotion regulation encompasses both conscious and unconscious strategies employed by individuals to monitor, assess, and adapt their emotional experiences in response to internal and external stimuli (Cole et al., 2004; Gross, 2015). This includes modulating the intensity, duration, and expression of emotions to align them with situational demands and personal goals. Furthermore, affect

regulation and emotion regulation can develop concurrently, influenced by contextual factors such as environment, upbringing, culture, and personal experiences (Aldao, 2013; Cole, 2014; Thompson, 2011; Thompson et al., 2013). Affect regulation and emotion regulation are also linked to self-regulation.

Self-regulation is a broader term that refers to an individual's capacity and strategies to manage their affect, emotions, behaviors, and thoughts to achieve their goals (Hewig et al., 2015). Self-regulation encompasses mainly skills crucial for regulating affect and regulating emotions, and guiding one's behavior (Ponitz et al., 2009). Self-regulation develops in a continuum, from external regulation, which denotes a more dependent state where external influences play a dominant role in regulation to co-regulation involving collaboration with others in the regulation process to having autonomy in self-regulation (Erdmann & Hertel, 2019; Gillespie, 2015; Pauen, 2016).

Mentalization

In the developmental process of emotion regulation, mentalization is seen as a key concept (Fonagy & Allison, 2014). Mentalization is the ability to understand one's own and others' mental states and emotions, thereby comprehending one's own and others' intentions (Fonagy & Target, 2006). Impairments in mentalization skills have been associated with a wide range of psychopathologies (Sharp & Venta, 2012).

Therapy with mentalization as a key concept was originally developed and manualized for people with borderline personality disorder (Bateman & Fonagy, 2010) and more recently for Antisocial Personality Disorder (ASDP) (Bateman et al., 2016). Also, interventions have been developed specifically for children, adolescents, and families (Midgley & Vrouva, 2012). In a systematic review it is shown that the existing literature provides tentative support for the use of Mentalization-based treatment (MBT) approaches for these populations, specifically in increasing mentalizing/reflective functioning (Byrne et al., 2020). Children are naturally equipped to acquire mentalization. Without developmental problems, around the age of four, the child attains mentalization, gaining the ability to understand that both themselves and others have feelings, intentions, and desires that may vary (Bateman et al., 2016; Fonagy & Allison, 2014; Midgley et al., 2017).

From a developmental perspective, affect regulation is, a prerequisite of mentalization (Fonagy et al., 2018; Meurs, 2009). With adequate functional affect regulation, the child can regulate his or her internal tensions. If not, a disturbance of affect regulation skills is assumed to cause a disruption of several aspects of emotional experience: the intensity of affects, the pleasantness, control, and the frequency of negative and positive affects (Bradley et al., 2011; Toth & Cicchetti, 1999).

It is argued that in treatments for children, based on the theory of mentalization, the focus must be on affect regulation because affect regulation is an (early) phase in the process that eventually may lead to mentalized affectivity and functional emotion regulation (Meurs, 2009). The amount of mentalization is related to the development

areas of cognition, language, and social–emotional functioning (Dekker-Van der Sande & Sterkenburg, 2016). Developmental delays in these domains in for instance persons with Mild to Borderline Intellectual Disability (MBID) might be linked to limited capacity to mentalize. Due to the developmental challenges faced by individuals with MBID, therapeutic goals should realistically focus on gradual improvements in mentalization. This speaks for developmentally oriented interventions that effectively address specific needs and capacities (Fonagy & Target, 2002).

Interventions

Early intervention, implemented as soon as psychosocial challenges arise, is critically important. The promotion of emotion-regulatory skills is identified as a key factor that may mitigate the risk of psychosocial problems during childhood and adolescence (Compas et al., 2014; McRae & Mauss, 2016; Zimmer-Gembeck & Skinner, 2016). Dysfunctional affect regulation (AR) has been linked to the origin and maintenance of psychopathology (Bradley, 2000), and deficits in affect regulation are known to disrupt emotion- and self-regulation (Baumeister et al., 2007). Therefore, interventions aimed at enhancing both affect regulation and emotion regulation skills show promise in the context of addressing psychosocial problems in children and adolescents.

Nowadays, the treatment of children and adolescents dealing with psychosocial problems frequently involves child and family-centered psychological interventions such as Cognitive Behavioral Therapy (CBT), parenting skills training, and social enhancement techniques which are often considered first choice treatments (Ogundele, 2018). These therapeutic modalities are mostly based on cognitive change processes and may not be ideally suited for young individuals who face difficulties in regulating their affects and emotions and often struggle to articulate and express their feelings effectively (Halder & Mahato, 2019; Kendall & Choudhury, 2003). Children and adolescents with psychosocial problems are known for experiencing difficulties in articulating and expressing emotions, which is a common aspect of psychosocial problems (Eisenberg et al., 1998; Gottman et al., 1996; Gross, 2015; Heilman et al., 2010; Sabatier et al., 2017). For such individuals, the consideration of art therapy (AT) may be warranted.

Moreover, the importance of considering the patient and their family as central participants in making treatment decisions, highlights the critical need for a variety of treatment options. In an era where personalized care is increasingly recognized as essential, art therapy emerges as a significant and feasible choice, thereby broadening the array of available interventions for effectively treating psychosocial problems.

Art Therapy

Art therapy is a mental health profession and therapeutic modality that utilizes the creative process of making visual art to explore, express, and address psychosocial challenges. It is conducted by trained and credentialed art therapists who work with

individuals, groups, and communities. Art therapy draws from the fields of art and psychology, employing the act of creating and engaging with art materials as a means of communication (Malchiodi, 2012b). AT has been employed to enhance self-esteem and self-awareness, nurture emotional resilience, refine social skills, and alleviate distress (American Art Therapy Association, 2024).

Art therapy can play an important role in helping children and adolescents who experience psychosocial challenges. Its ability to provide a safe and expressive outlet through creative means makes it a powerful resource, particularly for those who find verbal expression challenging (Malchiodi, 2012b). Within art therapy, individuals are offered a judgment-free space where they can artistically convey intricate emotions (Riley, 2001). Creating art in art therapy not only allows them to release build-up emotions and reduce stress but also fosters self-reflection and self-awareness, leading to insights into their inner thoughts, feelings, and behaviors (Betts, 2006). Thereby, the finalized art piece often results in boosted self-esteem and self-confidence (Sowden et al., 2015). Furthermore, art therapy nurtures resilience, equipping children and adolescents with coping mechanisms to confront life's challenges (Berberian & Davis, 2020).

Throughout this process, the supportive relationship with the art therapist is seen as a cornerstone for guidance and emotional growth (Moon, 2010). In essence, art therapy serves as a means for emotional expression, self-discovery, and psychological resilience, offering children and adolescents a pathway to growth. There is a growing body of insight into the effects of art therapy on psychosocial problems in children and adolescents. A review examined the impact of art therapy on this population and identified positive effects, particularly among children with trauma, medical conditions, juvenile offenders, and those in special education with disabilities (Cohen-Yatziv & Regev, 2019). Additionally, art therapy has shown potential in reducing trauma-related symptoms and depressive symptoms (Schouten et al., 2014). A more recent single-case study (Wright, 2023) revealed that art therapy could improve the client's communication skills and support the development of strategies for emotion regulation. Furthermore, research explored the impact of expressive art therapy on emotion regulation among 32 8–9-year-old primary school students. The findings suggest that art therapy, by promoting positive emotion regulation, can help children manage stress and behavior effectively (Nazeri et al., 2020).

Affect regulating Art(s) Therapies (ArAT)

A promising art therapy program in the Netherlands is known as Affect regulating Arts Therapies (ArAT). ArAT has a developmental oriented approach and is offered to children and adolescents with psychosocial problems, including children and adolescents with mild to borderline intellectual disabilities. The ArAT program aims to enhance affect regulating skills and has a development-oriented approach (Nieuwenhuis et al., 2020). Three types of interventions are distinguished, the use of art materials and techniques, interactive regulation, and mentalization. Supported by literature, ArAT argues that the experience of working with materials, within a mentalizing and (co-) regulating therapeutic relationship

might facilitate the development of affect regulation (Nieuwenhuis, 2020). The regulation of affect is seen as a prerequisite for adequate emotion regulation and in the end, self-regulation (Murray & Rosanbalm, 2017). The intervention behind ArAT is rooted in the practical application of professional arts therapy interventions within Child and Youth Mental Health Care in the Netherlands and is structured into three distinct phases: tension-regulation (Phase 1), attention-regulation (Phase 2), and affect-regulation (Phase 3).

The first phase of the ArAT program aims to regulate tensions, establishing the foundation for healthy affect regulation. A second goal is to build epistemic trust such that the child is willing to be open to and learn from new experiences (Bo, et al. 2017). Addressing epistemic trust is seen as crucial alongside tension regulation. Therapists prioritize reconstituting epistemic trust through pleasant, playful interactions, enhancing social learning and reducing tension, making it a key target in the initial phase in this treatment program (Fonagy & Allison, 2014). The tension regulation phase can be seen as the foundation for working on the treatment goals in the next two phases. If the tension rises again in later phases, interventions from the first phase are used.

During the attention-regulation phase, the therapeutic outcome for the child is to be able to focus on, allow and share sensory experiences (Nieuwenhuis et al., 2020). Sensory experiences are experiences from smelling, hearing, tasting, touching, and seeing. This objective is underpinned by the understanding that attention regulation is a critical component in mentalizing theory for the development of affect regulation (Tang et al., 2015). Joint attention is a fundamental step in understanding reciprocal interactions and the child's awareness of others' minds (Charman et al., 1997; Oberwelland et al., 2017; Soto-Icaza et al., 2015; Stern, 1985). Eventually, when the child can focus and tolerates working together with the therapist, can allow and share sensory experiences, investigate his surroundings and materials, can distinguish between pleasant and not pleasant, and is starting to make his/her own choices, the therapist can decide to start with the next phase (Nieuwenhuis et al., 2020).

Finally, in the affect regulation phase, the primary goal of the ArAT program is to teach the child or adolescent to articulate their affects, emotions, thoughts, and needs. This objective is supported by the understanding that focusing on one's own and others' affects within the attention phase allows the child to develop a mental representation of feelings. This milestone transforms social interactions, associating an understanding of emotions with empathic behavior and positive peer relations (Flavell & Miller, 1998; Fonagy & Allison, 2014). Moreover, this shift marks the beginning of a lifelong process, moving from the reliance on adult minds and co-regulation to enhancing the capacity for self-understanding and understanding others through social bonds (Fonagy & Allison, 2014). Over time, the child develops an internal working model, enabling them to regulate their own stress and emotions (Furnifall, 2011). The goal of the affect regulation phase is for the child to successfully express their thoughts, differentiate, share and exchange feelings, and develop an awareness of other people's emotions (Nieuwenhuis et al., 2020). Parents, caregivers, and teachers play a vital role in the ArAT program, contributing to its successful implementation in both home and school environments. Throughout

the ArAT program, five consultations are scheduled between the art therapist, parents or caregivers, and the child's teacher. These consultations occur before, during, and after each of the three therapy phases. During these sessions, the therapist offers psychoeducation on the development of affect regulation skills and the child's specific developmental needs. Additionally, the therapist fosters a mentalizing mindset among the involved individuals, encouraging them to reflect on the child's experiences. If necessary, parents or caregivers may be invited to participate in one or more therapy sessions to gain a deeper understanding of the developmental-oriented approach employed by the art therapist in their work with the child (Nieuwenhuis et al., 2020).

The Need for Research

Research into art therapy for children and adolescents' psychosocial problems is important for understanding its effectiveness and underlying mechanisms. The American Art Therapy Association (AATA, 2024) emphasizes the need for research to assess the effectiveness of art therapy and promote evidence-based practices. Art therapy, especially Affect regulating Arts Therapies (ArAT), holds potentially significant value for children and adolescents who struggle to clearly express their emotions. Given the critical role of affect and emotion regulation in development, art therapy can offer a pathway to growth, reduction of psychosocial problems, and an improved quality of life for vulnerable individuals.

In clinical practice, art therapists frequently rely on experiential and intuitive knowledge, which is often challenging to articulate and falls under the category of tacit knowledge (Petri et al., 2020). This knowledge is often grounded in beliefs and common-sense approaches, occasionally lacking robust empirical support (Haeyen et al., 2017). It encompasses theoretical principles, art therapeutic techniques, forms of expression, and therapist behaviors, including client interactions and material handling, deemed essential by art therapists to achieve desired outcomes (Schweizer et al., 2014). Despite the increasing insights into the effects of art therapy on various issues affecting children and adolescents, the specific components, and mechanisms responsible for these effects remain unclear.

Therefore, in Chapter 2, a systematic review was conducted to provide an overview of the specific elements of art therapeutic interventions that were shown to be effective in reducing psychosocial problems in children and adolescents. In this review, we focused on effects, applied means and forms, therapist behavior, supposed mechanisms of change of art therapeutic interventions. This review provides guidance on which components to incorporate into clinical practice. Furthermore, it establishes a solid foundation for future empirical research in the field of art therapy, such as the newly developed intervention ArAT (Fixsen et al., 2005). Also, exploring how well the ArAT program works, which combines various theoretical ideas and therapy techniques, is essential for advancing our understanding of art therapy.

While the ArAT program has provided insights into its theoretical foundation and practical application in therapy sessions (Nieuwenhuis et al., 2020), it is also important to gain insight into treatment integrity. Treatment integrity research assesses whether therapists are employing the intended methods and eventually may provide insight into which specific therapeutic actions are most beneficial. This knowledge is useful for art therapists, and it is also valuable for evaluating new programs like ArAT. Therapeutic actions are the deliberate steps taken by art therapists to help children achieve specific goals (Otero et al., 2010). So, being able to identify actions that may contribute to success in art therapy sessions helps us better understand the results, guides therapists in their practice, and provides a strong basis for further research in art therapy (Fixsen et al., 2005). Therefore, we wanted to identify these therapeutic actions in ArAT, create a tool to measure them, and check how reliable this tool is.

The ArAT program comprises three treatment phases, rooted in theories and insights from developmental treatments. While the program adheres to the prescribed sequence of these phases, a gap persists in our understanding of how the specified therapeutic actions for each phase are practically implemented in clinical settings. The presence of this gap raises concerns regarding the integrity of the therapeutic intervention. Moreover, investigating the alignment between the practical execution of the ArAT program and its theoretical framework is essential for advancing clinical practice and refining the ArAT program. Therefore, in Chapter 4, we aim to shed light on whether the theoretical description of the ArAT program's phases translates into clinical practice.

In addition, to evaluate the treatment integrity and impact of the ArAT program, we conducted a process evaluation. This assessment is important to ensure that the therapeutic actions and components of the ArAT program are correctly implemented in clinical practice. We focused on adherence to the protocol to establish the program's effectiveness in addressing psychosocial problems among children and adolescents. This is of importance due to the existing gap in empirical evidence about the program's real-world application and its alignment with theoretical expectations. Our findings not only enhance the literature on art therapy interventions but also highlight the implementation challenges and opportunities of the ArAT program. The insights gained from this process evaluation help refine the program by identifying successful elements and areas needing adjustment, thus informing future applications and resource allocation to optimize outcomes (Glasgow et al., 2003; Moore et al., 2015; Stirman et al., 2019).

Evaluating Art Therapy as a Complex Intervention

Art Therapy, including ArAT, is a multifaceted and complex intervention, characterized by various interacting components and specific characteristics that researchers must consider in designing and conducting research. These include factors such as the number of interacting components, the complexity of actions by the care provider and client, and the level of flexibility or permissible adjustments in the intervention (Craig et al., 2008, 2013). In art therapy, the therapeutic process involves not only the client-therapist

interaction but also the interplay between the client, the art process, and the resulting artwork. This intricate process encompasses numerous factors, many of which are still unknown, making it important to explore appropriate methods for evaluating treatment efficacy (Hakvoort et al., 2015).

As a result, alternative evaluation designs are gaining prominence within the field. Single-case designs represent research approaches that prioritize individual cases to determine the effectiveness of an intervention for a specific person (Kazdin, 2011). These designs offer a versatile set of options for evaluating interventions across various fields, including psychology, medicine, education, counseling, and art therapy, with the overarching goal of examining individual changes (Aldridge, 2005; Kazdin, 2011). They are widely recognized as valuable tools for assessing treatment outcomes in both clinical and applied settings (Barlow et al., 2009; Kazdin, 2011; Lillie et al., 2011; McLeod et al., 1986; Ter Haar-Pomp et al., 2015). The American Psychological Association's Presidential Task Force on evidence-based practice (2006) acknowledges that research evidence derived from well-designed quasi-experimental single-case designs can significantly contribute to scientific evidence. Similarly, the Cochrane Collaboration recognizes that outcomes from single-case designs, included in systematic reviews, play a pivotal role in contributing to the overall research evidence, particularly for inquiries that RCTs may not fully address (Higgins & Green, 2008). This highlights the importance of single-case designs in fields where RCTs face practical and ethical challenges. For instance, in art therapy, where the personalized nature of interventions makes standardization difficult, single-case designs provide a viable choice as a first step to explore therapeutic effects in a more flexible and context-specific manner.

The systemic N-of-1 design (Spreen, 2009), a single case design, has emerged as a promising avenue for art therapists to assess the effects and feasibility of their interventions for individual clients, thereby enriching the quality of their practices. The systemic N-of-1 design represents a comprehensive mixed-method single-case approach, incorporating both quantitative and qualitative data collection from multiple perspectives. It involves the client, as well as a diverse array of individuals within their formal and informal networks. The design necessitates a minimum of two measurement points: one before treatment initiation and one after treatment completion. During each measurement point, various individuals assess the client's behavior. In this context, formal network members encompass professionals involved in the client's healthcare, such as therapists, psychologists, and counselors. On the other hand, informal network members comprise the client's personal connections, including family, friends, and neighbors. Those involved in gathering quantitative data can also contribute to the collection of qualitative data, facilitating data comparison and synthesis to provide a deeper understanding of the outcomes by illustrating not only statistical trends but also the contextual and subjective experiences that underpin these trends (Creswell, 2015). One notable advantage of this design is its relative ease of application in clinical practices. Furthermore, it is crucial to recognize its broader scope in examining intervention outcomes. This approach aligns with the imperative of contributing to the broader

knowledge development in the field. Before delving into more targeted research, the n=1 design allows for a comprehensive exploration of diverse impacts an intervention may have. This is particularly valuable compared to introducing a Randomized Controlled Trial (RCT) hastily, as it necessitates a nuanced understanding of potential outcomes. However, it is essential to acknowledge a limitation: alternative explanations for observed changes may exist, aside from those attributed to the art therapist's interventions (Kazdin, 2011; Spreen, 2009).

The systemic N-of-1 design can also be adapted into a multiple-case design, wherein several cases undergo regular measurements on identical outcome variables (Gustafsson, 2017; Kazdin, 2011; van Yperen et al., 2017). This approach, as recently exemplified by Schweizer et al. (2020) and Aalbers et al. (2020), is designed to recurrently assess whether behavioral changes occur when interventions are introduced. The greater the number of cases exhibiting behavioral improvements, the more confidently researchers can attribute observed effects to the intervention (Kazdin, 2011; Van Yperen et al., 2017).

Aims and Objectives of the Thesis

The main purpose of this thesis is to investigate and evaluate the effectiveness of Art Therapy, more specific, the Affect regulating Arts Therapies (ArAT) intervention in addressing psychosocial problems in children and adolescents. This research aims to identify specific art therapeutic components, assess the reliability of therapeutic actions within the ArAT program, examine the practical implementation of its theoretical phases, and provide insights into the strengths and areas for improvement of the ArAT program. Ultimately, this thesis seeks to evaluate the ArAT program on perceived effects and contribute to the understanding of art therapy's role in reducing the psychosocial problems of young individuals.

The subsequent objectives are:

- To gain insight into the effects, working mechanisms and which (combination of) art therapeutic elements contribute to reducing psychosocial problems in children and adolescents.
- To identify and establish the reliability of specific therapeutic actions within the ArAT approach to measure treatment integrity effectively.
- To examine the practical implementation of the theoretical phases outlined in the ArAT program to determine if they are observable as described.
- To acquire insight into treatment integrity, satisfaction and the strengths and areas for improvement within the ArAT program based on empirical observations.
- To assess the outcomes of the ArAT program in reducing psychosocial problems among children and adolescents.

CHAPTER 2

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

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Abstract

Background Art therapy (AT) is frequently offered to children and adolescents with psychosocial problems. AT is an experiential form of treatment in which the use of art materials, the process of creation in the presence and guidance of an art therapist, and the resulting artwork are assumed to contribute to the reduction of psychosocial problems. Although previous research reports positive effects, there is a lack of knowledge on which (combination of) art therapeutic components contribute to the reduction of psychosocial problems in children and adolescents.

Method A systematic narrative review was conducted to give an overview of AT interventions for children and adolescents with psychosocial problems. Fourteen databases and four electronic journals up to January 2020 were systematically searched. The applied means and forms of expression, therapist behavior, supposed mechanisms of change, and effects were extracted and coded.

Results Thirty-seven studies out of 1,299 studies met the inclusion criteria. This concerned 16 randomized controlled trials, eight controlled trials, and 13 single-group pre–post design studies. AT interventions for children and adolescents are characterized by a variety of materials/techniques, forms of structure such as giving topics or assignments, and the use of language. Three forms of therapist behavior were seen: non-directive, directive, and eclectic. All three forms of therapist behavior, in combination with a variety of means and forms of expression, showed significant effects on psychosocial problems.

Conclusions The results showed that the use of means and forms of expression and therapist behavior is applied flexibly. This suggests the responsiveness of AT, in which means and forms of expression and therapist behavior are applied to respond to the client›s needs and circumstances, thereby giving positive results for psychosocial outcomes. For future studies, presenting detailed information on the potential beneficial effects of used therapeutic perspectives, means, art techniques, and therapist behavior is recommended to get a better insight into (un)successful art therapeutic elements.

Introduction

Psychosocial problems are highly prevalent among children and adolescents with an estimated prevalence of 10%–20% worldwide (Kieling et al., 2011; World Health Organization, 2018). These problems can severely interfere with everyday functioning (Bhosale et al., 2015; Veldman et al., 2015) and increase the risk of poorer performance at school (Veldman et al., 2015). The term psychosocial problems is used to emphasize the close connection between psychological aspects of the human experience and the wider social experience (Soliman et al., 2020) and cover a wide range of problems, namely, emotional, behavioral, and social. Emotional problems are often referred to as internalizing problems, such as anxiety, depressive feelings, withdrawn behavior, and psychosomatic complaints. Behavioral problems are often considered as externalizing problems, such as hyperactivity, aggressive behavior, and conduct problems. Social problems are problems related to the ability of the child to initiate and maintain social contacts and interactions with others. Often, emotional, behavioral, and social problems occur jointly (Jaspers et al., 2012; Ogundele, 2018; Vogels, 2008).

The etiology of psychosocial problems is complex and varies regarding the problem(s) and/or the specific individual. Several theories seek to explain the etiology of psychosocial problems. The most common theory in Western psychology and psychiatry is the biopsychosocial theory, which assumes that a combination of genetic predisposition and environmental stressors triggers the onset of psychosocial problems (Lehman et al., 2017). Attachment theories also receive renewed attention (Brumariu, 2015; Duschinsky et al., 2015). These theories focus on the role of the early caregiver–child relationships and assume that (a lack of) security of attachment affects the child's self-(emotion)regulatory capacity and therefore his or her emotional, behavioral, and social competence (Groh et al., 2016; Veríssimo et al., 2014). Research has identified a number of biological, psychological, and environmental factors that contribute to the development or progression of psychosocial problems (Arango et al., 2018), namely, trauma, adverse childhood experiences, genetic predisposition, and temperament (Boursnell, 2011; Patrick et al., 2019; Sellers et al., 2013; Wright and Simms, 2015).

Psychosocial problems in children and adolescents are a considerable expense to society and an important reason for using health care. But, most of all, psychosocial problems can have a major impact on the future of the child's life (Smith and Smith, 2010). Effective interventions for children and adolescents, aiming at psychosocial problems, could prevent or reduce the likelihood of long-term impairment and, therefore, the burden of mental health disorders on individuals and their families and the costs to health systems and communities (Cho and Shin, 2013).

The most common treatments of psychosocial problems in children and adolescents include combinations of child- and family-focused psychological strategies, including cognitive behavioral therapy (CBT) and social communication enhancement techniques and parenting skills training (Ogundele, 2018). These interventions are designed with the idea that cognitions affect the way that children and adolescents feel and behave (Fenn &

Byrne, 2013). However, this starting point is considered not suitable for all youngsters, in particular, for children and adolescents who may find it difficult to formulate or express their experiences and feelings (Scheeringa et al., 2007; Teel, 2007). For such situations in clinical practice, additional therapies are often offered. Art therapy (AT) is such a form of therapy.

AT is an experiential form of treatment and has a special position in the treatment of children and adolescents because it is an easily accessible and non-threatening form of treatment. Traditionally, AT is (among others) used to improve self-esteem and self-awareness, cultivate emotional resilience, enhance social skills, and reduce distress (American Art Therapy Association, 2017), and research has increasingly identified factors, such as emotion regulation (Gratz et al., 2012) and self-esteem (Baumeister et al., 2003) as mechanisms underlying multiple forms of psychosocial problems.

Art therapists work from different orientations and theories, such as psychodynamic; humanistic (phenomenological, gestalt, person-centered); psychoeducational (behavioral, cognitive–behavioral, developmental); systemic (family and group therapy); as well as integrative and eclectic approaches. There are various variations in individual preference and orientation by art therapists (Van Lith, 2016). In AT, the art therapist may facilitate positive change in psychosocial problems through both engagement with the therapist and art materials in a playful and safe environment. Fundamental principles in AT for children and adolescents are that visual image-making is an important aspect of the natural learning process and that the children and adolescents, in the presence of the art therapist, can get in touch with feelings that otherwise cannot easily be expressed in words (Waller, 2006). The ability to express themselves and practice skills can give a sense of control and self-efficacy and promotes self-discovery. It, therefore, may provide a way for children and clinicians to address psychosocial problems in another way than other types of therapy (Dye, 2018).

Substantial clinical research concerning the mechanisms of change in AT is lacking (Gerge et al., 2019), although it is an emerging field (Carolan & Backos, 2017). AT supposed mechanisms of change can be divided into working mechanisms specific for AT and overall psychotherapeutic mechanisms of change, such as the therapeutic relationship between client and therapist or the expectations or hope (Cuijpers et al., 2019). Specific mechanisms of change for AT include, for instance, the assumption that art can be an effective system for the communication of implicit information (Gerge, & Pedersen, 2017) or that art-making consists of creation, observation, reflecting, and meaning-making, which leads to change and insight (Malchiodi, 2007).

Recently, it has been shown that AT results in beneficial outcomes for children and adolescents. Cohen-Yatziv and Regev (2019) published a review on AT for children and adolescents and found positive effects in children with trauma or medical conditions, in juvenile offenders, and in children in special education and with disabilities. While increasing insight into the effects of AT for different problem areas among children is collected, it remains unclear whether specific elements of AT interventions and mechanisms of change may be responsible for these effects. In clinical practice, art

therapists base their therapy on rich experiential and intuitive knowledge. This knowledge is often implicit and difficult to verbalize, also known as tacit knowledge (Petri et al., 2020). Often, it is based on beliefs or common-sense approaches, without a sound basis in empirical results (Haeyen et al., 2017). This intuitive knowledge and beliefs consist of (theoretical) principles, art therapeutic means and forms of expression, and therapist behavior [including interactions with the client(s) and handling of materials] that art therapists judge necessary to produce desired outcomes (Schweizer et al., 2014).

Identifying the elements that support positive outcomes improves the interpretation and understanding of outcomes, provides clues which elements to use in clinical practice, and will give a sound base for initiating more empirical research on AT (Fixsen et al., 2005). The aim of this review is to provide an overview of the specific elements of art therapeutic interventions that were shown to be effective in reducing psychosocial problems in children and adolescents. In this review, we will focus on applied means and forms, therapist behavior, supposed mechanisms of change of art therapeutic interventions. As the research question was stated, i.e., which art therapeutic elements support positive outcomes in psychosocial problems of children and adolescents aged 4-20 years?

Methods

Study Design

A systematic narrative review is performed according to the guidelines of the Cochrane Collaboration for study identification, selection, data extraction, and quality appraisal. Data analysis was performed, conforming narrative syntheses.

Eligibility Criteria

In this review, we included peer-reviewed published Randomized Controlled Trials (RCTs), non-randomized Clinical Controlled Trials (CCTs), and studies with group pre–posttest designs for AT of psychosocial problems in children and adolescents (4–20 years). Studies were included regardless of whether AT was present within the experimental or control condition.

Qualitative data were included when data-analysis methods specific for this kind of data were used. Only publications in English, Dutch, or German were included. Furthermore, only studies in which AT was provided by a certified art therapist to individuals or groups, without limitations on duration and number of sessions, were included. Excluded were studies in which AT was structurally combined with another non-verbal therapy, for instance, music therapy. Studies on (sand)play therapy were also excluded. Concerning the outcome, studies needed to evaluate AT interventions on psychosocial problems.

Psychosocial problems were broadly defined as emotional, behavioral, and social problems. Considered emotional (internalizing) problems were, for instance, anxiety, withdrawal, depressive feelings, psychosomatic complaints, and posttraumatic stress problems/disorder. Externalizing problems were, for instance, aggressiveness, restlessness, delinquency, and attention/hyperactivity problems. Social problems were

problems that the child has in making and maintaining contact with others. Also included were studies that evaluated AT interventions targeted at children/adolescents with psychosocial problems and showed results on supposed underlying mechanisms such as, for instance, self-esteem and emotion regulation.

Searches

Fourteen databases and four electronic journals were searched: PUBMED, Embase (Ovid), PsycINFO (EBSCO), The Cochrane Library (Cochrane Database of Systematic Reviews, Cochrane Central Register of Controlled Trials), Web of Science, Cinahl, Embase, Eric, Academic Search Premier, Google Scholar, Merkurstab, ArtheData, Relief, and Tijdschrift Voor Vaktherapie (Journal of Arts Therapies in the Netherlands). A search strategy was developed using keywords (art therapy in combination with a variety of terms regarding psychosocial problems) for the electronic databases according to their specific subject headings or structure. For each database, search terms were adapted according to the search capabilities of that database (Appendix 1). The search period had no limitation until the actual first search date: October 5, 2018. The search was repeated on January 30, 2020. If online versions of articles could not be traced, the authors were contacted with a request to send the article to the first author. The reference lists of systematic reviews, found in the search, were hand-searched for supplementing titles to ensure that all possible eligible studies would be detected.

Study Selection

A single RefWorks file of all identified references was produced. Duplicates were removed. The following selection procedure was independently of each other carried out by four researchers (LB, SvH, MS, and KP). Titles and abstracts were screened for eligibility by three researchers (LB, SvH, and KP). The full texts were subsequently assessed by three researchers (LB, MS, and KP) according to the eligibility criteria. Any disagreement in study selection between a pair of reviewers was resolved through discussion or by consultation with the fourth reviewer (SvH).

Quality of the Studies

The quality of the studies was assessed by two researchers (LB and KP) applying the EPHPP "Quality Assessment Tool for Quantitative Studies" (Thomas et al., 2004). Independent of each other, they came to their own opinions, after which consultation took place to reach an agreement. To assess the quality, the Quality Assessment Tool was used, which has eight categories: selection bias, study design, confounders, blinding, data collection methods, withdrawal and dropouts, intervention integrity, and analysis. Once the assessment was completed, each examined study received a mark ranging between "strong," "moderate," and "weak." The EPHPP tool has a solid methodological rating (Thomas et al., 2004).

Data Collection and Analysis

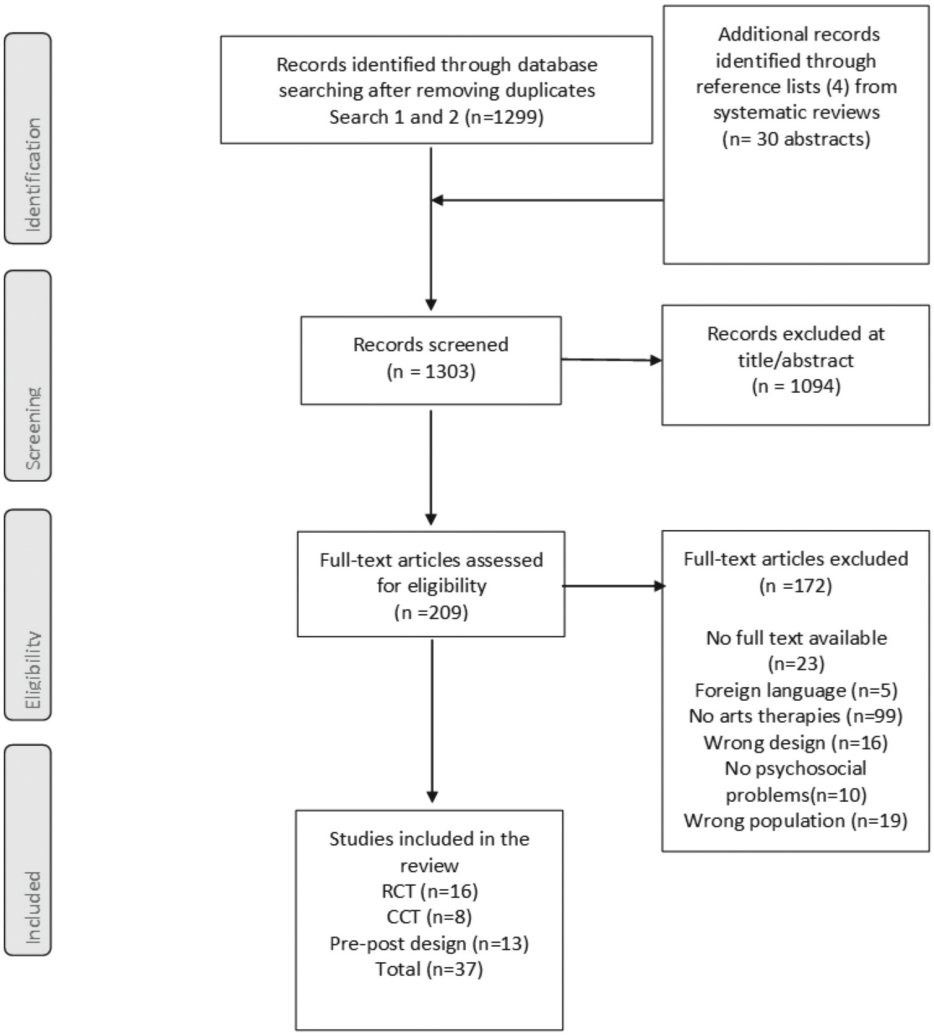
The following data were collected from the included studies: continent/country, type of publication of study, year of publication, language, impact factor of the journal published, study design, the primary outcome, measures, setting, type of clients, comorbidity, physical problems, total N, experimental N, control N, proportion male, mean age, age range, the content of the intervention, content control, co-intervention, theoretical framework AT, other theoretical frameworks, number of sessions, frequency sessions, length sessions, outcome domains and outcome measures, time points, outcomes, and statistics. An inductive content analysis (Erlingsson & Brysiewicz, 2017) was conducted on the characteristics of the employed ATs concerning the means and forms of expression, the associated therapist behavior, the described mechanisms of change, and whether there were significant effects of the AT interventions. A narrative analysis was performed.

Results

Study Selection

The first search (October 2018) yielded 1,285 unique studies. In January 2020, the search was repeated, resulting in 14 additional unique studies, making a total of 1,299. Four additional studies identified from manually searching the reference lists from 30 reviews were added, making a total of 1,303 studies screened on title and abstract. In the first search, 1,085 studies, and in the second search, nine studies were excluded, making a total of 1,094 studies being excluded on title and abstract. This resulted in 209 full-text articles to assess eligibility. In the full-text selection phase, from the first search, another 167 studies were excluded; in the second search, five studies were excluded. This makes a total of 172 studies being excluded in the full-text phase. Twenty-three studies were excluded because a full text was unavailable; five studies because the language was not English, Dutch, or German; 99 studies did not meet the AT definition; 16 studies had a wrong design; 10 studies did not treat psychosocial problems; and 19 studies concerned a wrong population. In total, 37 studies were included (see Figure 1 for an overview of the complete selection process).

Figure 1
Prisma Overview of Selection Process



Study Design

The final review included 16 RCTs, eight CCTs, and 13 single-group pre–post designs (total n = 37). Of the RCTs, a mixed-method design, involving both quantitative and qualitative data, was used in two studies. In one RCT, the control group received AT meeting our criteria, while the experimental group did not receive such therapy (11). In another RCT, the experimental and the control group both received AT meeting our criteria (13). Also, two CCT studies used a mixed-method design, but these qualitative results were not included due to inappropriate analysis. Of the single-group pre–posttest designs, two studies had a mixed-method (quantitative and qualitative) design (Table 1).

Quality of the Studies

Of the 16 RCTs, two studies were evaluated as weak, 11 studies received a moderate score, and three studies were labeled as strong. Concerning the CCTs, five studies were evaluated as weak, one study as moderate, and two studies as strong. Of the 13 pre–posttest designs, five studies were assessed as weak and eight studies as moderate (Table 1).

Study Population

The studies in this review included children and adolescents (ages 2–20) with a wide range of psychosocial problems and diagnoses. Most of the studies included children from the age of 6 years onward, with children's groups ranging from 6 to 15, adolescent groups ranging from 11 to 20, and mixed groups with an age range of 6–20 years. In 13 studies, both boys and girls were included, three studies only included boys, three studies only included girls, and 18 studies did not report the gender of the participants. Psychiatric diagnoses were reported, such as depression, autism spectrum disorder (ASD), conduct disorder (CD), post-traumatic stress disorder (PTSD), and mild intellectual disability (MID). However, also more specific problems were reported, such as children with suicidal thoughts and behavior, children having a brother/sister with a life-threatening disease, boys and girls in an educational welfare program needing emotional and psychological help, and orphans with low self-esteem. Another group of children that were reported had medical concerns, such as persistent asthma, traumatic injuries, or serious medical diagnoses such as cancer, often combined with anxiety problems and/or trauma-related problems (Table 1).

Number of Participants

The sample sizes of the RCTs ranged from 16 to 109. The total number of children of all RCTs was 707, of which 317 were allocated to an experimental condition and 390 to a control condition (Table 1). The sample sizes of the CCTs ranged from 15 to 780, and the total number of participants was 1,115. The total number of participants who received an AT treatment was 186; the total number of the control groups was 929. Notice that the sample size for the CCTs was influenced by one study in which a control sample database of 780 was used. The sample size of the included pre–posttest designs ranged from 8 to 94 participants, with a total number of 411 participants (Table 1).

Type of Intervention, Frequency, and Treatment Duration

In the 37 studies, a total of 39 AT interventions were studied. In two studies, two AT interventions were studied. Of the 39 interventions, 30 studies evaluated group interventions, seven studies evaluated an individually offered intervention, one study evaluated an individual approach within a group setting, and in one study, the intervention was alternately offered as a group intervention or as an individual intervention. The number of sessions of the AT interventions varied from once to 25 times. The frequency of the AT interventions varied from once a week (n = 14) or twice a week (n = 5) and variations such as four times a week in 2 weeks (n = 1); six sessions were varying from

one to three times a week (n = 1), 10 sessions during 12 weeks (n = 1), and eight sessions in 2 weeks (n = 1). The frequency of sessions has not been reported in nine studies. In five studies, the intervention was offered once (Table 1).

Control Interventions

In six RCTs, care, as usual, was given to the control groups. In study four, this also concerned AT, but it was offered in a program that consisted of different forms of treatment as child life services, social work, and psychiatric consults and therefore did not meet our criteria for inclusion. The control groups receiving "care as usual" received routine education and activities of their programs in school (6); counseling/medications and group activities as art, music, sports, computer games, and dance (8); standard arts- and craft-making activities in a group (9); and standard hospital services (14). One study did not specify what happened as care as usual (2). In five RCTs, a specific intervention of activity was offered in the control condition. These control interventions involved 3 h of teaching (5), a discussion group (7), offering play material (magneatos) (12), and a range of games (11), and one study offered weekly socialization sessions, these sessions were offered by the same professionals as the experimental group, and activities were playing board games, talking about weekend activities, and taking walks on the school grounds (16). Two RCT studies did not mention the condition in the control group (1, 10). Two studies mentioned that the control group did not receive any intervention program (3, 11). One study mentioned that the control group had the same assessments as the treatment group but did not receive therapy until all of the assessments were collected (15).

Regarding the eight CCTs, two studies described the control condition in more detail, consisting of academic work (21) or 3 h of informal recreational activities (24). No intervention was offered to the control group in four studies (19, 20, 22, 23). The control intervention was not described within two studies (17, 18) (Table 1).

Applied Means and Forms of Expression

The applied means and forms of expression in the AT interventions could be classified into three categories: art materials/techniques, topics/assignments given, and language as a form of verbal expression accompanying the use of art materials. Results will be shown for 39 AT interventions in total, coming from 37 studies (Appendix A). Two studies applied two different types of AT interventions. These two types of AT will be referred to as 13 a/b and 29 a/b.

Materials/Techniques

Regarding the category art materials/techniques, three subcategories were found. In the first subcategory, only two-dimensional art media/techniques were used, such as drawing, painting, or printing (the art product possessed length and width, but not depth). Used as materials were for instance, (acrylic) paint, markers, color pencil, crayons, gouache and water, white pieces of paper, cardboard, construction paper with pencils and colored markers, a "sketch" coloring, pencils, markers, and oil pastels (1, 3, 6, 7, 10,

14, 18, 21, 23). No specific art techniques concerning the way the materials were applied were mentioned in this subcategory.

In the second subcategory, both two-dimensional and three-dimensional art media and techniques (art that can be defined in three dimensions: height, width, and depth) were offered: clay, papier-mâché masks, paint, paper decoration forms and markers, pictures and journals, paper, cardboard, construction materials, hospital socks, buttons and threads, sewing materials, magic beans, sand, fiberfill, photos, wood, stone, plaster, felt and other textiles, and yarn. In this subcategory, specific art techniques were mentioned, such as paper cutting and paper folding, collage technique, bookmaking, building a face, basket-making, clay techniques, guided fantasy, group painting, story-making through a doll, placing feelings in boxes, drawing/sculpting feelings, making clay shapes, creating self-portraits, and molding clay (2, 5, 8, 11, 13a, 19, 20, 22, 26, 27, 28, 29a, 29b, 30, 31, 32, 33, 36, 37).

In the third category, both two-dimensional and three-dimensional art materials/techniques were applied, which matched the specific assignment or topic given (4, 9, 12, 13b, 14, 15, 17, 24, 25). For instance, drawings were made, and the collage technique was used to make a book (9). Four sets of facial features (eyes, noses, mouths, and brows), as well as a mannequin head, were offered for representing facial emotions (12), and in one study, patients used buttons, threads, and sewing materials with which they constructed their Healing Sock Creature, which the children filled with magic beans, sand, or fiberfill (15).

Topics/Assignments

Three subcategories were found concerning the category topics/assignments. The first subcategory, free working with the materials without topics/assignments given, was applied in five AT interventions (3, 5, 11, 13a, 16). In the second subcategory, 26 AT interventions used assignment(s) or gave topics (1, 2, 4, 7, 8, 9, 10, 12, 13b, 14, 15, 17, 19, 20, 21, 22, 23, 24, 25, 27, 29 a/b, 32, 33, 36, 37). The third subcategory concerned combinations of these two. Two studies mixed free working and giving topics/assignments (28, 30), and seven studies did not describe the intervention explicit enough to classify them (6, 18, 26, 31, 34, 35, 36). A wide range of activities based on topics and/or assignments were reported. Eleven categories could be detected; (1) getting familiar with the art material (1, 17) like “learning about art media” (1) and “warm-up clay activities and introduction to theme-related clay techniques” (17); (2) focusing on family perspective, like for instance, “draw first childhood memory/family relations”(1, 23), drawing family as animal (19); (3) working with visualization, fantasy, and meditation (1, 10, 20, 21), such as guided fantasy with clay, and story-making through a doll (20); (4) expressing emotions (1, 14, 19, 20, 23, 32) like “the participant was asked to create four different faces, representing happiness, sadness, anger, and fear” (14) or “make an anger collage” (19); (5) focusing on specific problems such as chronic disease or stress-related events (2, 4, 8, 9, 14, 15, 19, 37) such as “the experience associated with stress is drawn on small white paper and the future solution contents will be drawn on

colorful, larger paper" (8) and "drawing feelings, drawing perpetrators, placing of these in boxes" (19); (6) applying group activities (10, 19, 20, 32), for instance, "make a group painting"(20) and "all the children were asked to work on a group project to bring closure by drawing a ceremony on a large paper together with comments" (10); (7) working on an exhibition of artwork (10, 32), for instance, "at the end, a small exhibition of artwork was made" (10); (8) focusing on the material/technique (17, 21, 27, 37) such as "making shapes using clay" (17) and "mold clay into a pleasing form, which could be an animal, a person, an object, or an abstract form" (21); (9) focusing on specific art techniques (19, 21, 29) such as "arrange a variety of objects in a pleasing orientation and draft the still life with a pencil" (21) or "make a photo collage"(19); (10) working with a product/object as a result (24, 25, 27, 32) such as, for instance, "making a bracelet" (32), "making paper bags" (27), or creating therapeutic art books (25); (11) applying general activities (1, 7, 19, 22, 27, 32) like drawing of a picture (7) and "the given theme was heroes"(22). Two studies (13b, 33) gave assignments/topics but did not specify these.

The Role of Language

Three subcategories were found concerning the role of language as a form of verbal expression accompanying the use of art materials and techniques: the produced artwork was mainly discussed afterward in a group meeting or on an individual basis (1, 2, 3, 4, 9, 10, 11, 13b, 14, 17, 29, 36) or feelings and concerns were mainly discussed and reflected on while working (5, 12, 13a, 15, 18, 22, 25, 26, 28) and other varieties such as: the work was (verbally) presented (4) and/or patients also retold the narrative created (5). In one study (7), the originator gave a title, offered associations to it, and said how he/she felt before and after drawing other members gave their associations. In one study (8), all artworks were gathered as a collection and reviewed at the end of the intervention (last session) together with the parents.

Therapist Behavior

Regarding therapist behavior, the information is structured in two categories: the therapist behavior, including social interactions with the client(s), and the handling of materials by the therapist, including material interactions with the client(s).

Therapist Behavior, Including Social Interactions with Their Client(s)

The information revealed three broad behaviors: non directive behavior, directive behavior, and behavior that can be considered eclectic. Non-directive behavior refers to AT interventions in which the therapists showed mainly a following and facilitating attitude toward the children/adolescents. Thirteen AT interventions applied this kind of therapist behavior (13a, 15, 16, 17, 18, 20, 21, 22, 23, 25, 29a, 30, 36). Interactions with clients were for example, "the therapist was non-interpretive, with the participants creating their direct statements and finding their meanings in the individual artwork they created" (21) and "the therapist facilitates the creation of the artistic product and is supportive" (13a). Directive behavior refers to AT interventions in which the therapist

showed an active and leading role toward the children/adolescents. Ten AT interventions (4, 8, 10, 11, 12, 13b, 24, 26, 28, 29b) used this kind of therapist behavior. Interactions with the clients were, for example, "the therapist asks exception/difference questions" (8) or "the participant was directed to choose a mouth, nose, eyes, and brows that represented the correct emotion" (12). A mix of these two types of therapist behaviors (eclectic) was applied in nine AT interventions (2, 5, 7, 9, 14, 32, 33, 34, 35), for instance: "each adolescent was asked at the beginning of the session to do a 'feelings check-in' describing how he or she was feeling in the moment and a 'feelings check-out' at the end of the session. In the art-making period, a minimal discussion took place" (9) or "art therapists worked with their clients to form therapeutic goals during initial sessions, followed by both structured and unstructured weekly AT sessions" (34). In seven AT interventions (1, 3, 6, 19, 27, 31, 37), insufficient information was given to classify the therapist's behavior.

The Handling of Materials by the Therapist, Including Material Interactions with the Client(s)

Information was provided by seven studies: "the therapist assists and supports the youngster in carrying out the activity" (5), "the therapist embeds solution-focused questions and skills in the art-making process" (8), "during working with materials, there was minimal discussion" (9), "the child was directed to choose features/materials that represented the correct emotion" (12), "the therapist gave delineated verbal instructions and directions for art media" (13a), "the therapist-assisted the child having difficulty with a specific medium" (13b), "the therapist became the co-creator" (15), and "the therapist avoided giving art instructions" (25).

Supposed Mechanisms of Change

In the introduction and discussion sections of the articles, a range of supposed mechanisms of change as substantiation of the intervention and outcomes were described (Appendix A). The supposed mechanisms of change could be categorized into two categories: art therapy specific and general psychotherapeutic mechanisms of change.

Specific Mechanisms of Change

Eight subcategories of a specific mechanism of change were detected. The first category was Art therapy as a form of expression to reveal what is inside. This large subcategory, could be divided into three forms: art as a form of visualizing and communication in general (1, 13, 15, 19, 20, 26, 28, 33, 35, 36), such as, "it enables the child to visualize" (15); art as a manageable expression and/or regulation of emotions (1, 2, 3, 7, 8, 10, 19, 20, 23, 27, 28, 31, 33, 35, 37), e.g., "through art emotions can be processed" (2); and art as a way of expression through specific processes (1, 4, 5, 9, 10, 11, 14, 15, 17, 19, 22, 25, 28, 29, 31, 32), for instance, "reduces threat inherent in sharing experiences of trauma by permitting a constructive use of displacement via the production of imagistic representations" (9). The second category was Art therapy as a way of becoming aware

of oneself, mentioned by 10 studies (1, 2, 11, 13, 16, 23, 24, 25, 35, 36), for instance, “to regain a sense of personal agency” (1). The third category was defined as art therapy as a way to form a narrative of life, like “facilitation of the integration of the experience into one’s larger, autobiographical life narrative” (4), while the fourth category dealt with art therapy as integrative activation of the brain through experience, which was mentioned in six studies (4, 12, 14, 16, 34, 26), for instance, “utilizing the integrative capacity of the brain by accessing the traumatic sensations and memories in a manner that is consistent with the current understanding of the transmission of experience to language”(4). The fifth category art therapy as a form of exploration and/or reflection was mentioned in seven studies (1, 9, 15, 18, 30, 5, 8), for instance, “to explore existential concerns” (1), and the sixth category the specifics of the art materials/techniques offered in art therapy was mentioned in three studies (13, 17, 30), for instance, “because they could change the shape as they wished, which contributed to a positive evaluation of their own performance”(17). The seventh category art therapy as a form to practice and/or learn skills was mentioned in four studies (10, 19, 28, 33), for example, “in art therapy interventions, children can learn coping responses, new skills, or problem-solving techniques” (10). Finally, the eighth category art therapy, as an easily accessible, positive, and safe intervention by the use of art materials was mentioned by 15 studies (1, 2, 6, 8, 10, 16, 19, 23, 24, 25, 28, 29, 30, 32, 37), for instance, “non-verbal expression that is possible in art therapy is a safe way” (10).

General Mechanisms of Change

Two subcategories of general mechanisms of change could be defined. The first subcategory was defined as art therapy as a form of group process, mentioned by eight studies (7, 9, 13, 18, 20, 29, 30, 36), for instance, “present thoughts and feelings in a non-verbal way within the structure of the group” (7). The second, the therapeutic alliance in art therapy, was mentioned by six studies (5, 8, 16, 18, 26, 29), for instance, “the primary role of the therapist as listening, accepting, and validating” (16).

Table 1

Study Characteristics/Outcomes

Authors/ Year	Design/ Time-points	Quality Assess-ment Rate	Study Population	Number of Participants (treated/ control)	Type (group or individual or both), Frequency, Duration	Control Intervention/ Care as Usual	Outcome Domain/ Measure	Results	Qualitative results
1) Bazargan & Pakdaman (2016)	RCT, pre-posttest	Strong	Age: 14-18 with internalizing and externalizing problems	60 (30/30)	Group, six sessions, 60 minutes	Not described	Achenbach System of Empirically Based Assessment (ASEBA) (2001): internalizing and externalizing problems	Art therapy significantly reduced internalizing problems: effect in reducing externalizing problems was not significant.	-
2) Beebe et al. (2010)	RCT, pre-posttest, follow-up: 6 months	Weak	Age: 7-14 with persistent asthma	22 (11/11)	Group, seven sessions, 60 minutes, once a week	Care as usual	Beck Youth Inventories Second Edition: self-reported adaptive and maladaptive behaviors and emotions; the Pediatric Quality of Life (Peds QL) Asthma Module and the Peds QL Asthma Module Parent Report for Children: impact of asthma on the quality of life; Draw a Person Picking an Apple from a Tree: evaluation part from the Formal Elements of Art Therapy Scale (FEATS): coping abilities and resourcefulness	Statistically improved Beck anxiety and self-concept scores from the child-reported Beck Inventories. Disruptive behavior, anger, and depression did not change statistically. Improved problem-solving and affect drawing scores on the FEATS. Statistically improved parent and child worry, communication, and parent and child total quality of life scores. At six months, the active group maintained (affect drawing scores, worry, and quality of life); Beck Anxiety score Frequency of asthma exacerbations did not differ between the two groups.	-

Table 1

Continued

Authors/ Year	Design/ Time-points	Quality Assess-ment Rate	Study Population	Number of Participants (treated/ control)	Type (group or individual or both), Frequency, Duration	Control Intervention/ Care as Usual	Outcome Domain/ Measure	Results	Qualitative results
3) Beh-Pajooh et al. (2018)	RCT, pre-posttest	Moderate	Mean age:12, male children with ID and externalizing behaviors	60 (30/30)	Group, 12 sessions two times a week, 45 min.	The control group did not receive any intervention program	Conditional Reasoning Problems: externalizing behaviors; Bender Visual-Motor Gestalt Test (BVMGT): emotional problems	The mean levels of externalizing behaviors between the intervention group and the control group were significantly different. No significance for emotional problems.	-
4) Chapman et al. (2001)	RCT, measures at 1-week, 1-month, and 6-month intervals	Moderate	Age: 7-17, mean age: 10,7, 70,6 % male admitted to a Level I trauma center for traumatic injuries	58 (31/27)	Individual, once	Care as usual, including child life services, art therapy, social work, and psychiatric consults.	PTSD-I: self-report measure that asks the individuals to respond to a 20-item inventory of symptoms based primarily on the diagnostic PTSD criteria in the DSM-IV	No statistically significant differences in the reduction of PTSD symptoms between the experimental and control groups. Children receiving the art therapy intervention showed a reduction in acute stress symptoms but not significant.	-
5) Freilich & Shechtman (2010)	RCT, baseline, after, follow-up (3 months later) Process measures five times throug-hout the intervention Critical incidents: following each session	Moderate	Age: 7-15, learning disabilities, 70 % male	93 (42/51)	Group, 22 weeks, 60 minutes	Three hours of teaching	Child Behavior Checklist (CBCL)/ The Teacher Evaluation Form (TRF): adjustment; Working Alliance Inventory: bonding with group members;	Significant reduction in internalizing and externalizing problems. Control group scored higher on process variables (bonding and impression of therapy); bonding was associated with outcomes only in the therapy condition (not significant).	-

Table 1
Continued

Authors/ Year	Design/ Time-points	Quality Assess-ment Rate	Study Population	Number of Participants (treated/ control)	Type (group or individual or both), Frequency, Duration	Control Intervention/ Care as Usual	Outcome Domain/ Measure	Results	Qualitative results
6) Hashemian & Jarahi (2014)	RCT, pre-posttest	Moderate	Age: 8-15, educable ID students, IQ 50 to 70, boys, and girls	20 (10/10)	Group, 12 sessions, 75 minutes 2 times a week within two months	Care as usual: routine education and activity of their programs in school	Rutter Behavior Questions (form for teachers): aggression, hyperactivity, social conflict, antisocial behaviors, attention deficits; Good enough draw a person test: aggression behavior	Painting therapy was effective. The mean scores of aggression in the intervention group and the control group were significantly different.	-
7) Kymissis et al. (1996)	RCT, pre-posttest	Moderate	Age: 13-17, varie-ty of diagnoses: Conduct Disorder (CD), Oppositional Defiant Disorder (ODD), Depressive Disorder, Bipolar Disorder and Borderline Personality Disorder (BPD)	37 (18/19)	Group, eight sessions, four sessions per week for two weeks	Discussion group with same co-therapists as treatment group: free discussion with minimal directions	Children's Global Assessment Scale (CGAS): general functioning; Inventory of Interpersonal Problems (IIP): distress from interpersonal sources	Both groups significant improvement in general functioning, SCIT members the highest degree (however not significant). No significance in either group on interpersonal variables of Assertiveness, Sociability, or Responsibility.	-
8) Liu (2017)	RCT, pre-posttest	Strong	Age: 6-13, one or more traumatic experiences and self-reported or parent-reported sleep-related problems	41 (21/20)	Group, eight sessions of 50 minutes in two weeks	Care as usual: counseling/ medications and same group activities except the experimental SF-AT treatment, regular group activities: art, music, sports, computer games and dance	The Connecticut Trauma Screen (CTS) and Child Reaction to Traumatic Events Scale-Revised (CRTES): PTSD; Sleep Self-Report (SSR): sleep (trauma-related)	Findings indicated that the SF-AT significantly alleviated PTSD and sleep symptoms.	-

Table 1

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Authors/ Year	Design/ Time-points	Quality Assess-ment Rate	Study Population	Number of Participants (treated/ control)	Type (group or individual or both), Frequency, Duration	Control Intervention/ Care as Usual	Outcome Domain/ Measure	Results	Qualitative results
9) Lyshak-Stelzer et al. (2007)	RCT, pre-posttest	Weak	Age: 13-17, 55,2% male, chronic child post-traumatic stress disorder (PTSD)	29 (14/15)	Individual approach in group, 16 sessions once a week	Care as usual: standard arts- and craft-making activity group	The UCLA PTSD Reaction Index for DSM-IV Child Version: PTSD symptoms in children ages 7 to 12	Significant treatment-by-condition interaction indicating the TF-ART condition had a greater reduction in PTSD symptoms.	-
10) Ramin alavinezhad et al. (2013)	RCT, pre-posttest	Moderate	Age: 7-11, intense aggressive behaviors, boys, and girls	30 (15/15)	Group, 10-week intervention, participants had the choice of attending weekly 2-hour art therapy sessions, a minimum of 7 sessions were included in the study	Not described	Children's Inventory of anger (ChIA): anger; Coppersmith Self-esteem Inventory: self-esteem	The art therapy group showed a significant reduction of anger and significant improvement of self-esteem compared with the control group. The educational self-esteem subscale did not show a significant reduction in comparison with the control group.	-
11) Regev & Guttmann (2005)	RCT, pre-posttest, four groups: 1 experimental, three control	Moderate	Age: 8-13, Male: 63,2%, primary-school children with learning disorders	104 (25/25/29/25)	Group, 25 weeks, 45 minutes	Three control groups: control group A (games group) various in-class games, control group B (art therapy group) art projects in an art-therapy fashion by art therapist, group C: no intervention	LSDQ The Loneliness and Social Dissatis-faction Questionnaire: socially lonely and dissatisfaction; CSCS The Piers-Harris Children's Self-Concept Scale: self-esteem; IARQ The Intellectual Achievement Respon-sibility Questionnaire: responsibility for suc-cesses/failures at school; CS The Children's Sense of Coherence Scale: a sense of empowerment	Children in the art therapy group did not score better than those in any other group on any of the dependent variables.	-

Table 1
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Authors/ Year	Design/ Time-points	Quality Assess-ment Rate	Study Population	Number of Participants (treated/ control)	Type (group or individual or both), Frequency, Duration	Control Intervention/ Care as Usual	Outcome Domain/ Measure	Results	Qualitative results
12) Richard et al. (2015)	RCT, pre-posttest	Moderate	Age: 8-14, ASD (autism spectrum disorder)	19 (10/9)	Individual, once 60 minutes	Magneatos, a three-dimensional construction set for building three-dimensional designs	The Diagnostic Analysis of Nonverbal Accuracy 2-Child Facial Expressions (DANVA 2-CF): measuring the accurate sending and receiving of nonverbal social information	No significant difference between the treatment and control group on the accurate sending and receiving of nonverbal social information; however, the treatment group had more considerable improvement than the control.	-
13) Rosal (1993)	RCT, pre-posttest, mixed method	Moderate	Mean age: 10,2, moderate to severe behavior problems	36 (12/12/12)	Group, 20 times, two times a week, 50 minutes	Cognitive-behavioral art therapy	The TRS: problem behavior; The Children's Nowicki-Strickland Internal-External Locus of Control (CNS-IE): locus of control; a personal construct drawing interview (PCDI) (qualitative); two case examples are described	No significant results for LOC. Both cognitive-behavioral art therapy and the art as therapy group showed significant results for problem behavior, although art as therapy marginal.	Two children improved in LOC and behavior (case examples)
14) Schreier et al. (2005)	RCT, pre-posttest within 24 hours of hospital admission, repeated at one month, six months, and 18 months	Moderate	Mean age: 10, children hospitalized for a minimum of 24 hours after physical trauma	57 (27/30)	Individual, once for approximately an hour	Care as usual: standard hospital services	UCLA Posttraumatic Stress Disorder Reaction Index (UCLA PTSD-RI): PTSD	The art therapy intervention showed no sustained effects on the reduction of PTSD symptoms.	

Table 1
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Authors/ Year	Design/ Time-points	Quality Assess-ment Rate	Study Population	Number of Participants (treated/ control)	Type (group or individual or both), Frequency, Duration	Control Intervention/ Care as Usual	Outcome Domain/ Measure	Results	Qualitative results
15) Siegel et al. (2015)	RCT, pre-posttest, mixed method	Moderate	Age: 4-16, mean age: 8,3, pediatric patients with a wide range of serious medical diagnoses	25 (13/12)	Individual, once 90 minutes	Control group: the same assessments as the treatment group but did not receive therapy until after all of the assessments were collected	Question asked: how are you feeling right now about your stay in the hospital? Children could choose a series of faces expressing emotions (mood) Complemented at post-test with: a qualitative interview with two questions: Is there anything you want to tell us about how are you feeling right now?	No significant improvements in mood for children following therapy sessions. Compared to the children in the wait-list control group, there was a trend of improvement in mood reported by the children immediately following the therapy.	-

Table 1
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Authors/ Year	Design/ Time-points	Quality Assess-ment Rate	Study Population	Number of Participants (treated/ control)	Type (group or individual or both), Frequency, Duration	Control Intervention/ Care as Usual	Outcome Domain/ Measure	Results	Qualitative results
16) Tibbetts & Stone (1990)	RCT, pre-posttest	Strong	Mean age: 14,6, seriously emotionally disturbed (SED)	16 (8/8)	Group, once a week, six weeks, 45 minutes	Weekly socialization sessions by the same professional with individual sessions lasting 45 minutes, activities: playing board games, talking about weekend activities, taking walks on the school grounds	The Burks Behavior Rating Scales (BBRS): behavioral and emotional functioning; the Roberts Apperception Test (RATC): personality	Overall, no significant differences were found on the BBRS, but both groups demonstrated overall positive changes across almost all measured categories of behavioral and emotional functioning. The experimental group demonstrated statistically significant improvement in attention span and sense of identity (BBRS). RATC: significant improvement overall. The experimental group demonstrated signi-ficant score reductions in Reliance Upon Others, degree of perceived support available from others in the environment (Support/ Other), and their positive expressed feelings about themselves (Support/Child). At the same time, significant reductions were also found in levels of Depression, Rejection, and Anxiety.	-

Table 1

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Authors/ Year	Design/ Time-points	Quality Assess-ment Rate	Study Population	Number of Participants (treated/ control)	Type (group or individual or both), Frequency, Duration	Control Intervention/ Care as Usual	Outcome Domain/ Measure	Results	Qualitative results
17) Jang & Choi (2012)	CCT, pre-posttest, follow up after three months	Weak	Age: 13-15, boys and girls in an educational welfare program needing emotional and psychological help	16 (8/8)	Group, 18 times, weekly 80 minutes	Not described	Shin's (2004) ego resilience scale: ego resilience	A significant increase in ego resilience between pre-, post, and follow up. There was a positive effect on the regulation and release of emotions (not significant).	-
18) Khadar et al. (2013)	CCT, pre-posttest, one month follow up	Weak	Age: 7-11, boys with symptoms of separation anxiety disorder	30 (15/15)	Group, 12 times twice a week, 40 minutes	Not described	The Child Symptom Inventory-4 (CSI-4): emotional and behavioral disorders	The experimental group had a significant decrease in the symptoms of Separation Anxiety Disorder, while the control group showed no significant difference.	-
19) Khoda-bakhshi Koolaee et al. (2016)	CCT, pre-posttest, follow up after one month	Weak	Age: 8-12, boys and girls with leukemia cancer who had one score above the mean scores of anxiety and anger	30 (15/15)	Group, 11 sessions, twice a week, 60 minutes	The control group did not receive any intervention	Spence Children's Anxiety Scale: anxiety; Children's Inventory of Anger (ChIA): anger	A significant difference between the pretest and post-test scores in aggression and anxiety.	-

Table 1
Continued

Authors/ Year	Design/ Time-points	Quality Assess-ment Rate	Study Population	Number of Participants (treated/ control)	Type (group or individual or both), Frequency, Duration	Control Intervention/ Care as Usual	Outcome Domain/ Measure	Results	Qualitative results
20) Pretorius & Pfeifer (2010)	CCT, pre-posttest control group design and post-test only control group design	Weak	Age; 8-11, girls with a history of sexual abuse	25 (6/6/6/7)	Group, eight times	The control group did not receive any intervention	The Trauma Symptom Checklist for Children (TSCC): depression, anxiety, and sexual trauma; The Human Figure Drawing (HFD): self-esteem	The experimental groups improved significantly compared to the control groups concerning anxiety and depression. No significance in sexual trauma and low self-esteem.	-
21) Ramirez (2013)	CCT, pre-posttest, mixed method	Weak	Male high school freshmen students living in poverty	156 Exp.: 80 (29/26/25) Contr.: 76 (24/26/26)	Group, 12 sessions once a week	Academic work	The Behavior Assessment System for Children Second Edition (BASC-2): behavioral and emotional problems; qualitative questionnaire for responses to open-ended prompts	Three groups: 1) Honors track: art therapy group improved significantly on inattention/hyperactivity more than those in the control group, but not on anxiety, depression, self-esteem, internalizing problems, emotional symptoms, and personal adjustment; 2) Average track: personal adjustment and self-esteem improved significantly more for art therapy participants than for those in the control group, but not on anxiety, depression, inattention/ hyperactivity problems, internalizing problems and emotional symptoms. No statistically significant differences were found for participants in the 3) At-risk track.	Participant responses: through the creative process, peer interactions increased, ventilation of uncomfortable feelings occurred, and outlets for alleviating stress were provided.

Table 1
Continued

Authors/ Year	Design/ Time-points	Quality Assess-ment Rate	Study Population	Number of Participants (treated/ control)	Type (group or individual or both), Frequency, Duration	Control Intervention/ Care as Usual	Outcome Domain/ Measure	Results	Qualitative results
22) Steiert (2015)	CCT, design with control sample	Moderate	Age: 10-16, 7 with a life-threatening illness and two brothers/ sisters	Exp.: 9 (control sample 780)	Individual, six sessions, 90 minutes, varying from 1 to 3 times a week	Control sample Feel K-J	Feel-KJ: emotion regulation	Significant deviations from the control group for emotion regulation. From a sample of 9 participants, two children differed significantly, and five children very significantly from the value of the standard sample. Maladaptive strategies: highly significant for three of the children.	-
23) Wallace et al. (2014)	CCT, one week after the procedure, one month post, three months post	Strong	Age: 6-18, siblings of pediatric patients who had undergone pediatric hematopoietic stem cell transplant	30 (20/10)	Individual, three times, session's duration varied from 90 minutes to 2 hours	No treatment	The Revised Children's Manifest Anxiety Scale Second Edition (RCMAS–2: anxiety; Second Edition UCLA PTSD Index for DSM-IV: PTSS; the Piers-Harris Children's Self-Concept Scale: self-concept	Compared to the control group, the intervention group showed significantly lower levels of post-traumatic stress symptoms at the final session. Improvements in sibling psychosocial functioning associated with participation in the art therapy interventions. No intervention versus control group difference for self-concept and anxiety.	-

Table 1
Continued

Authors/ Year	Design/ Time-points	Quality Assess-ment Rate	Study Population	Number of Participants (treated/ control)	Type (group or individual or both), Frequency, Duration	Control Intervention/ Care as Usual	Outcome Domain/ Measure	Results	Qualitative results
24) Walsh (1993)	CCT, pre-posttest time-series design, follow up after a month, mixed-method	Strong	Age: 13-17, hospitalized suicidal boys and girls	39 (21/18)	Group, two times 90 minutes	Three hours of informal recreational activities (gymnasium free time)	Beck Depression Inventory (BDI): depression; the Coopersmith Self-Esteem Inventory (SEI): self-esteem	Both groups improved on all measures during and after hospitalization but not significant.	-
25) Chaves (2011)	Single group pre-posttest, mixed method	Moderate	Age:12-20, eating disorder patients, one boy, seven girls	8	Group, four times once a week, 240 minutes	No control	The Subjective Units of Distress (SUDS) scale and visual analog scale (VAS): four negative mood states commonly found in individuals with eating disorders; the Rosenberg Self-Esteem Scale and the Hartz Art Therapy Self-Esteem Scale: global self-esteem and art therapy related self-esteem	Global self-esteem did not change. Self-esteem related to art therapy trended upward, though still did not show significant change. The SUDS (distress) and VAS (negative mood) showed the most considerable change after the first group session, but not significant.	-

Table 1

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Authors/ Year	Design/ Time-points	Quality Assess-ment Rate	Study Population	Number of Participants (treated/ control)	Type (group or individual or both), Frequency, Duration	Control Intervention/ Care as Usual	Outcome Domain/ Measure	Results	Qualitative results
26) D'Amico & Lalonde (2017)	Single group pre-posttest, mixed method	Weak	Age:10-12, 5 boys and one girl with ASD (autism spectrum disorder) who required varying degrees of substantial support	6	Group, once a week for 21 weeks, 75 minutes	No control	The Parent and Student Forms of the Social Skills Improvement System Rating Scales (SSIS–RS): social skills and problem behaviors: Observations of the children's progress recorded by the art therapists in their clinical notes (qualitative)	Significant reduction of hyperactivity/inattention. No significant changes in mean, standard scores for social skills. No statistically significant mean changes in the standard scores for problem behaviors. Art therapy enhanced the ability of children with ASD (autism spectrum disorder) to engage and assert themselves in their social interactions, while reducing hyperactivity and inattention.	The children demonstrated a shift in self-image, were more confident and assured of their skills. Capable of expressing their ideas, thoughts, and feelings and sharing these. The children enjoyed providing and receiving feedback about their art-work. They appeared to initiate social exchanges independently. Increased capacity to reflect on their behaviors and display self-awareness.

Table 1
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Authors/ Year	Design/ Time-points	Quality Assess-ment Rate	Study Population	Number of Participants (treated/ control)	Type (group or individual or both), Frequency, Duration	Control Intervention/ Care as Usual	Outcome Domain/ Measure	Results	Qualitative results
27) Devidas & Medonca (2017)	Single group pre-posttest	Weak	47.61% age:11-12, 9.52% age:13-14, orphans with low self-esteem	42	Group, ten times once a week	No control	Rosenberg Self Esteem Scale: self-esteem	Art therapy was significantly effective in improving the level of self-esteem.	-
28) Epp (2008)	Single group pre-posttest	Moderate	Age: 6-12, students on the autism spectrum	66	Group, once a week 60 minutes	No control	The SSRS: social behavior problems	Significant improvement in assertion scores, internalizing behaviors, hyperactivity scores, and problem behavior scores. No significant change for responsibility.	-
29) Hartz & Thick (2005)	Two intervention group pre-posttest design	Moderate	Age: 13-18, female juvenile offenders	27 (12/15)	Group, ten times for 12 weeks, 90 minutes	No control	The Harter Self-Perception Profile for Adolescents (SPPA): self- esteem; The Hartz Art Therapy Self Esteem Questionnaire (Hartz AT-SEQ): development of mastery, social connection, and self-approval	No significant differences on the Hartz AT-SEQ: self-esteem. Both groups (a/b) reported increased feelings of mastery, connection, and self-approval (not significant). The art psychotherapy (b) group showed a significant increase in domains of close friendship and behavioral conduct, whereas the art as therapy group (a) did in the domain of social acceptance.	-

Table 1
Continued

Authors/ Year	Design/ Time-points	Quality Assess-ment Rate	Study Population	Number of Participants (treated/ control)	Type (group or individual or both), Frequency, Duration	Control Intervention/ Care as Usual	Outcome Domain/ Measure	Results	Qualitative results
30) Higenbottam (2004)	Single group pre-posttest	Weak	Age: 13-14, eight grade students, reasons referral varied: eating disorders, suspected eating disorders, substance abuse, low self-esteem, negative body image, and relational aggression	7	Group, eight times once a week, 90 minutes	No control	Questionnaires: student's feelings around body image and self- esteem adapted from Daley and Lecroy's Go Grrrls Questionnaire	Significant improvements in body image and self-esteem. Participation in the art therapy group may significantly contribute to improved body image and self-esteem and hence the academic and psychological adjustment of adolescent girls.	-
31) Jo et al. (2018)	Single group pre-posttest	Moderate	Age: 7-10, siblings of children with cancer, boys and girls	17	Group, 12 times once a week, 60 minutes	No control	Revised Children's Manifest Anxiety Scale, adapted by Choi and Cho to fit a Korean context: anxiety; DAS test by Silver: Depression; K-CBCL standardized into Korean from the original CBCL: problem behavior; self-esteem: scale developed by Choi and Chun	Significant improvement for self-esteem. Significant decrease in somatic symptoms, aggressive-ness, externalizing problems, total behavior problem scale, and emotional insta-bility. No significant results for withdrawal, anxiety/ depression, social imma-turity, thought problems, and attention problems.	-
32) Pifalo (2002)	Single group pre-posttest	Moderate	Age: 8-17, girls' victims of sexual abuse	13	Group, ten times once a week, 90 minutes	No control	The Briere Trauma Symptom Checklist for Children (TSCC): trauma symptoms	Significantly reduced anxiety, post-traumatic stress, and dissociative symptomatology scores. Participants showed a decrease in depression, anger, and sexual concerns, although these decreases were not large enough to be statistically significant.	-

Table 1
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Authors/ Year	Design/ Time-points	Quality Assess-ment Rate	Study Population	Number of Participants (treated/ control)	Type (group or individual or both), Frequency, Duration	Control Intervention/ Care as Usual	Outcome Domain/ Measure	Results	Qualitative results
33) Pifalo (2006)	Single group pre-posttest	Moderate	Age: 8-10, 11-13, and 14-16, children with histories of sexual abuse	41	Group, eight times once a week, 60 minutes	No control	The Briere Trauma Symptom Checklist for Children (TSCC): trauma symptoms	A statistically significant reduction of Anxiety, Depression, Anger, Posttraumatic Stress, Dissociation, Dissociation-Overt, Sexual Concerns, Sexual Preoccupation, and Sexual Distress. No significant change for Hyper-response, Dissociation-Fantasy.	-
34) Rowe et al. (2017)	Pre-posttest, mixed method	Moderate	Age:11-20, refugees	30	60% individual, 40 % group	No control	Hopkins Symptoms Checklist (HSC): symptoms of anxiety and depression; The Strengths and Difficulties Questionnaire (SDQ): behavior and performance in school; Harvard Trauma Questionnaire (HTQ): previous experience of trauma; Piers-Harris Self-Concept Scale (PHSCS): self-concept	Improvements in anxiety and self-concept but not significant.	-

Table 1

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Authors/ Year	Design/ Time-points	Quality Assess-ment Rate	Study Population	Number of Participants (treated/ control)	Type (group or individual or both), Frequency, Duration	Control Intervention/ Care as Usual	Outcome Domain/ Measure	Results	Qualitative results
35) Saunders & Saunders (2000)	Pre-posttest, multiyear evaluation	Weak	Age: 2-16, problems: hyperactivity, poor concen-tration, poor communication, defiant behavior, lying/blaming, poor motivation, change in sleep routine, manipulation and fighting	94	Individual, between 2 and 96 sessions	No control	Rating on 24 behaviors typically identified as symptomatic of individual and family dysfunction	Significant positive impact on the lives of clients/ families. Clients showed a significant decrease in frequency and severity ratings of problematic behaviors.	-
36) Sitzer & Stockwell (2015)	Single group pre-posttest within-subjects, mixed-method	Weak	Elementary school students with a variety of concerns: emotional dysregulation, lack of social skills, depression, anxiety, lack of focus and concentration, many a history of trauma	43	Group, 14 sessions, once a week 60 minutes	No control	The Wellness Inventory: school functioning attributes: emotional, behavioral, cognitive, and social problems and resilience. Teachers observed students throughout the day for relevant changes in mood and behavior (qualitative)	Results indicated significant increases in resilience, social and emotional functioning. No significant change for behavioral problems.	Overall functioning improved. Improvements in emotional expression, cognition, behavioral interaction, and resilience.
37) Stafstrom et al. (2012)	Pre-posttest	Moderate	Age: 7-18, epilepsy (any type) for at least six months	17	Group, four sessions 90 minutes	No control	Childhood Attitude Toward Illness Scale	No significant change in pre- versus post-group CATIS scores.	-

Synthesized Findings

Means and Forms of Expression and Therapist Behavior

Concerning the search for similarities and differences, the three found forms of therapist behavior were used to distribute the means and forms, which gave the following results.

The Therapist Behavior Was Non-directive

The therapist showed mainly a following and facilitating attitude toward the children/adolescents; in this category (n = 13), the use of means and forms of expression was variable, but most often, children and adolescents worked on base of topics and assignments with both two- and three-dimensional materials and techniques, while during working, process and product were discussed. Specifically, four AT interventions used only two-dimensional materials/techniques (15, 18, 21, 23), six AT interventions offered both two- and three-dimensional materials/techniques (13a, 20, 22, 29a, 30, 36), and three AT interventions offered materials/techniques fitting the topic/assignment (15, 17, 25), which included a combination of two- and three-dimensional materials/techniques. Three AT interventions let the clients work freely without topics and assignments given (13a, 18, 30), eight AT interventions were based on topics/assignments (15, 20, 21, 22, 23, 25, 29a, 36), and two AT interventions combined both ways (17, 30). Concerning the use of language, in three AT interventions, there was a discussion on process/product afterward (17, 29a, 36), in five AT interventions, there was a verbal exchange while working (13a, 15, 18, 22, 25), and five studies (16, 20, 21, 23, 30) in this category did not make their use of language explicit as an additional form of expression. The most mentioned subcategories of supposed mechanisms of change for this category were “art therapy as a form of expression to reveal what is inside,” “art therapy as a form of exploration,” and “art therapy as a way of experiencing the self.”

The Therapist Behavior Was Directive

The therapist showed mainly an active and leading role toward the children/adolescents; the use of means and forms of expression was again variable in this category (n = 10), but most often, children and adolescents worked on base of topics and assignments with both two- and three-dimensional materials/techniques, whereby the process and work were reflected upon afterward in different forms. Specifically, one intervention used only two-dimensional materials/techniques (10), five AT interventions offered both two- and three-dimensional materials/techniques (8, 11, 26, 28, 29b), and four AT interventions offered materials/techniques fitting the topic/assignment (4, 12, 13b, 24), which included two- and three-dimensional materials/techniques. Two AT interventions let the clients work without topics and assignments given (11, 28), and seven AT interventions were based on topics/assignments (4, 8, 10, 12, 13b, 24, 29b), one AT intervention combined both ways (28), and one study did not provide information on this topic (26). Concerning the use of language, in five AT interventions, there was a discussion on process/product afterward (4, 10, 11, 13b, 29b), in three AT interventions, there was a verbal exchange

while working (12, 26, 28), and one study used language in a specific form (reviewing the collection with children and parents) (8). One AT intervention discussed the work afterward in a different form (a narrative retold) (4). One intervention did not make the use of language explicit as an additional form of expression (24). The most-reported subcategories of supposed mechanisms of change were the same as for the non-directive therapist behavior.

The Therapist Both Performed Directive and Non-directive Behavior (Eclectic) Toward Clients

Also, the use of means and forms of expression was variable in this category (n = 9). All kinds of materials/techniques were used but most often were worked on base of topics/assignments. The use of language was not often mentioned, but if it was used, it was used as a discussion afterward. Specifically: two AT interventions used only two-dimensional materials/techniques (7, 14), four AT interventions offered both two- and three-dimensional materials/techniques (2, 5, 32, 33), and two AT interventions offered materials/techniques fitting the topic/assignment (9, 14), which included both two- and three-dimensional materials/techniques. One study did not provide information on this topic (34). In one AT intervention, the clients worked freely without topics and assignments given (14), and six AT interventions were based on topics/assignments (2, 5, 7, 9, 32, 33).

Concerning the use of language, in three AT interventions, there was a discussion on process/product afterward (2, 9, 14), no AT interventions mentioned a verbal exchange while working, and four studies (32, 33, 34, 35) in this category did not make their use of language explicit as an additional form of expression. The most-reported subcategories of supposed mechanisms of change for this category were “art therapy as a form of expression to reveal what is inside”; “art therapy as a form of exploration,” and “art therapy as an easily/safe accessible intervention.”

In seven studies (1, 3, 6, 19, 27, 31, 37), the AT interventions were not enough explicated to make combinations.

Outcomes

Therapist Behaviors in Relation to Psychosocial Outcomes

The division into three categories of non-directive, directive, and eclectic therapist behavior gave the opportunity to show outcomes in accordance with these. To structure the outcome, these are reported by categorizing psychosocial problems into internalizing problems, externalizing problems, and social problems and in outcomes that can be considered underlying mechanisms of psychosocial problems. These underlying mechanism outcomes were divided into the domains self-concept/self-esteem and emotion regulation.

Non-directive Therapist Behavior

Eight studies (15, 16, 18, 20, 21, 23, 25, 36), which applied the non-directive therapist behavior, focused on Internalizing Problems as an outcome. These results showed significant improvement in post-traumatic stress symptoms (23); emotional functioning (36, 16), depression, rejection, and anxiety (16), reduction of symptoms of Separation Anxiety Disorder (18), and symptoms of anxiety and depression (20). The quality of two studies (16, 23) was strong, and the other three studies were assessed as being of weak quality. Also, four times no significant improvement was reported for negative mood states (15), negative mood and distress (25), feelings of anxiety (23), and anxiety, depression, internalizing problems, and emotional symptoms (21). The quality of these studies was strong (23) or weak (15, 21, 25).

Five studies (13a, 16, 21, 29, 36) showed results for Externalizing Problems. The results showed significant improvement in inattention/hyperactivity problems for the Honors track group (21) (weak), behavioral conduct (29) (moderate), attention span (16) (strong), and problem behavior (13a) (moderate). However, also, no significant improvement was reported on behavioral problems (36, 16) and inattention/hyperactivity for the Average track group (21).

Four studies (16, 21, 29a, 36) reported results for Social Problems. A significant effect was found on social functioning and resilience (36) (weak), social acceptance (29a) (moderate), personal adjustment (21), and degree of perceived support available from others and reliance upon others (16) (strong). No significant improvement was found for personal adjustment (21). The qualitative data revealed improvement in behavioral and peer interaction (36, 21).

Some studies evaluating interventions with non-directive therapist behavior showed results on outcomes that can be considered underlying mechanisms of psychosocial problems. For the domain Self-concept/Self-esteem, nine studies (13a, 16, 20, 21, 23, 25, 29a, 30, 36) showed results on this domain. They reported significant improvement in self-esteem (21, 30); feelings around body image (30) (weak); self-approval (29a); sense of identity, overall personality, positive feelings about themselves (16); and resilience (36). Also, no significant improvement was shown on this domain, e.g., self-esteem (10, 21, 25, 29a), self-concept (23) (strong), and Locus of Control (13a) (refers to how strongly people believe they have control over the situations and experiences), which was a study of moderate quality. Qualitative results showed improvement in this domain on resilience (13, 36). Two studies reported results on Emotion Regulation. In one study, a significant improvement was seen in emotion regulation and maladaptive strategies (22) (moderate), while in another study, no improvement was found. This study was assessed as being a weak study (17). Qualitative results showed that participants reported that “ventilation of uncomfortable feelings occurred, and an outlet for alleviating stress was provided” (21), and there were improvements in emotional expression and cognition (36).

Directive Therapist Behavior

Four studies that applied the directive therapist behavior (4, 8, 24, 28) showed results for Internalizing Problems. In these studies, there was a significant improvement in internalizing behaviors (28), PTSD, and sleep-related problems (8). The quality of these studies was moderate (28) and strong (8). No significant improvement was reported for mood, depression (24), PTSD, and acute stress (4). The quality of these two studies was strong and moderate.

Four studies (10, 13b, 26, 28) reported results for Externalizing Problems, and significant improvement was found on anger (10), problem behavior (13b), hyperactivity/inattention (26), hyperactivity scores, and problem behavior (28). Also, no significant improvement was reported, specifically on problem behaviors (26). The qualitative results of these AT interventions described improved classroom behavior (13). The quality of these studies was moderate (10, 13, 28) and weak (26).

Four studies (11, 26, 28, 29) reported results for Social Problems. These studies reported significant improvement for close friendship (29) and assertion (28). But in other studies, no significant improvement was reported for social skills (26), socially lonely (11), and responsibility (28). The quality of the studies was assessed as being moderate (11, 29) and weak (26, 28). Qualitative results revealed that "the clients appeared to initiate social exchanges more independently and were improved on sharing feelings, thoughts, and ideas" (26).

Some studies applying directive therapist behavior showed results on (supposed) underlying mechanisms. Five studies (10, 11, 13, 24, 29) showed results on Self-esteem/Self-concept. Significant improvement was found on self-esteem (10) and self-approval (29). Also, no significant improvement was found on self-esteem (29, 24, 11), a sense of empowerment (11), responsibility for success/failure at school (11), Locus of Control (13), and educational self-esteem (10). The quality of the studies was strong (24) and moderate (10, 11, 13, 29). Also, positive qualitative results were reported in this domain, i.e., "a shift in self-image, were more confident and assured of their skills, and were more capable of expressing their ideas, thoughts, and feelings and in sharing these. They also showed an increased capacity to reflect on their behaviors and display self-awareness" (26) and improved Locus of Control (13). One study reported no significant improvement in Emotion Regulation (12). This study was of moderate quality.

Eclectic Therapist Behavior

Seven studies (2, 5, 9, 14, 32, 33, 34) in which interventions with eclectic therapist behavior was applied showed results on Internalizing Problems. Significant improvement was reported on internalizing problems (5), anxiety (2, 32, 33), and parent & child worry (2), depression, dissociation, sexual concerns, sexual preoccupation, and sexual distress (33), dissociative symptomatology (32), and post-traumatic stress (9, 32, 33). However, no significant results were reported on anxiety (34), depression (2, 32), dissociation (fantasy) (33), sexual concerns (32), and PTSD symptoms (14). The quality was assessed as being weak (2, 9) and moderate (14, 32, 33, 34).

Five studies (2, 5, 32, 33, 35) reported on Externalizing Problems, and they reported significant improvement on externalizing problems (5), problematic behaviors (35), and anger (33). No significant improvement was reported for disruptive behavior (2), hyper-response (33), and anger (2, 32). The study quality was weak (2, 35) and moderate (5, 32, 33).

Two studies (2, 7) reported on Social Problems, and significant improvement was found for parent and child communication (2) (weak). No significant improvement was reported on sociability, responsibility, and assertiveness (7).

Within the category eclectic therapist behavior, one study showed results on underlying mechanisms, specifically no significant improvement on Self-concept (34). This study was being assessed with moderate quality.

Overall Results

As is shown in Table 2, more than 50% of the studies on the effects of AT interventions using non-directive therapist behavior showed significant effects on the outcome domains, with high impact on externalizing (80%), social problems (75%), and internalizing problems (62,5%). Self-esteem/self-concept and emotion regulation showed lower figures, with 55.6 and 50%, respectively. AT interventions in which directive therapist behavior was used showed a different picture. The number for treating externalizing problems stood out, with 100% of the studied AT interventions being significantly effective in this domain. However, percentages of significant interventions for internalizing problems, social problems, self-esteem/self-concept were equal to or <50%. AT interventions using eclectic therapist behavior showed best results on internalizing and externalizing problems with, respectively 71.4 and 60% of the AT interventions that were evaluated on these outcome domains.

Table 2

Number and Percentage of Interventions per Type of Therapist Behavior Showing Significant Effects on Outcomes

	Internalizing problems	Externalizing problems	Social problems	Self-esteem/Self-concept	Emotion regulation
THERAPEUTIC BEHAVIOR					
Non-directive	*n* = 5 (62.5%)	*n* = 4 (80%)	*n* = 3 (75%)	*n* = 5 (55.6%)	*n* = 1 (50%)
Directive	*n* = 2 (50%)	*n* = 4 (100%)	*n* = 2 (50%)	*n* = 2 (40%)	-
Eclectic	*n* = 5 (71.4%)	*n* = 3 (60%)	*n* = 1 (50%)	-	-

Discussion

The purpose of this systematic narrative review was to provide an overview of AT interventions that were effective in reducing psychosocial problems in children and adolescents. The emphasis was on the applied means and forms of expression during AT, the therapeutic behavior applied, and the supposed mechanisms of change to substantiate the use of the intervention. The main results showed that a broad spectrum of art materials and techniques are used in AT treatments for psychosocial problems

in children and adolescents. No specific art materials or techniques stood out. Also, forms of structure such as working on the basis of topics or assignments and the way language is applied during or after the sessions vary widely and do not seem to relate to a specific category of therapist behavior. From this point of view, it seems less important which (combination of) materials/techniques and forms of structure art therapists use in treatments of psychosocial problems. The wide variety of materials, techniques, and assignments that are used in AT shows that AT is very responsive to individual cases in their treatments. This is in line with the concept that art therapists can attune to the client's possibilities and needs with art materials/techniques (Franklin, 2010).

Therapist behavior appeared to be the only distinctive component in the interventions. Three broad forms were found: non-directive, directive, and eclectic. In practice, art therapists often define their practice with orientations such as psychodynamic, gestalt, person-centered, etc. or choose an approach according to their individual preferences (Van Lith, 2016). For instance, a stance in which the therapist sees its role as being a witness to the experience of the inherent process of knowing the self (Allen et al., 2008) is often related to a non-directive therapist behavior or a stance in which they elicit meaning-making by engendering a new perspective (Karkou & Sanderson, 2006) is often related to a form of directive therapist behavior. Also, many art therapists work from the point of view that the art therapist should adapt to the client needs, which can be considered an eclectic approach (Van Lith, 2016) and which incorporates both forms of therapist behavior. Next to individual preferences, many psychotherapeutic approaches are being used in art therapeutic treatments of children and adolescents (Graves-Alcorn & Green, 2014; Frey, 2015; Gardner, 2015; Van Lith, 2016). However, in the end, they all range on a continuum from non-directive to directive therapist behavior (Yasenik & Gardner, 2012).

The results of this review show that AT for children and adolescents with psychosocial problems can lead to improvement in all domains for all three forms of therapist behavior in combination with a variety of means and forms. And, although the focus of this review was less on therapy outcomes, the results confirm the conclusion of Cohen-Yatziv and Regev (2019) that AT for children and adolescents with psychosocial problems can be effective. Non-directive therapist behavior, whereby the therapist is following and facilitating, shows the most significant effects in this study for psychosocial problems, next to eclectic therapist behavior for internalizing and externalizing problems. Also, it was striking that directive therapist behavior was effective for externalizing problems in all studies evaluating interventions with this type of therapist behavior, while this was not the case for the other outcome domains. Children and adolescents with externalizing problems may thus profit from directive, non-directive, and eclectic art therapist behavior. In addition, the findings suggest that we need to carefully consider using directive behavior in children with internalizing or social problems.

To substantiate the use of the AT interventions and the results, a variety of supposed mechanisms of change were described. Both specific and more general mechanisms of change were reported to substantiate AT interventions. The majority concerned specific

AT mechanisms of change. Often, AT is considered a form of expression to reveal what is inside or its effects are explained by an exploration of feelings, emotions, and thoughts. These mechanisms of change were seen in AT interventions with non-directive, directive, and eclectic therapist behavior. The simultaneous occurrence of supposed mechanisms of change in all these categories of therapist behavior that differ substantially from one another can be explained by the central use of art materials, which distinguishes AT from the other ATs and from other psychotherapeutic approaches (Malchiodi, 2012a). It can be considered as an additional and specific value of AT and, therefore, frequently used as substantiation for the used AT interventions and their effects.

Corresponding between the studies that showed positive results was the adaptation of the materials/techniques, forms of structure, and therapist behavior to the problems and needs of the children and adolescents involved. This process is called responsiveness. Responsiveness consists of interacting in a way such that the other is understood, valued, and supported in fulfilling important personal needs and goals. It can be seen as a moment-by-moment process of the therapeutic alliance between therapist and client (Sousa et al., 2011). Responsiveness supports and strengthens both the relationship and its members (Reis and Clark, 2013). In AT, therapist behavior and the use of materials and techniques can both be adapted to these needs and may be considered an important element in explaining the positive effects of AT. Processes such as responsiveness and therapeutic alliance relate partially to attachment theories. In AT, a therapeutic alliance includes, next to the client and art therapist, a third "object," the art medium, comprised of art materials, art-making, and artworks (Bat Or, & Zilcha-Mano, 2018). From the perspective of attachment theory, the encounter between client and art material in AT may reflect attachment-related dynamics (Snir et al., 2017). Therefore, art therapists recapitulate positive relational aspects through purposeful creative experiences that offer sensory opportunities to reinforce a secure attachment (Malchiodi & Crenshaw, 2015). In this way, materials and techniques can offer the child and adolescent a "safe bridge" to bond with the therapist and explore and grow in developmental areas that are treated.

Given the results, relational, experiential (combined with art) knowledge to connect to the children's and adolescent's problems and needs seems indispensable for art therapists. This study included AT interventions performed by certified art therapists. Art therapists get a thorough education in relational and experiential (art) skills and obtain tacit knowledge through practice. By having more insight into the importance of the role of therapist behavior and the use of materials/techniques in AT interventions for children and adolescents, art therapists can improve results. Choices for therapist behavior and the use of materials/techniques should not depend that much on context or individual preference but on the client's problems and needs and which therapist behavior fits the client best. The results of this study provide clues on which and how to use AT elements in clinical practice, but above all, it gives a sound base for initiating more empirical research on AT. For practice and research purposes, a thorough elaboration and description of the therapist behavior in manuals are then of importance.

Strengths and Limitations of This Review

In this study, a narrative synthesis was performed because of the focus on substantive aspects and the heterogeneity of the studies. A common criticism of narrative synthesis is that it is difficult to maintain transparency in the interpretation of the data and the development of conclusions. It threatens the value of the synthesis and the extent to which the conclusions are reliable. For instance, in this study, we searched for similarities and differences in two core elements of AT (Schweizer et al., 2014). Sometimes, forced choices had to be made in the division of the defined components into group categories and, eventually, to divide them into categories of therapist behavior. Separating and distinguishing components of an intervention are not straightforward.

From the literature, it is known that studies with positive results are overrepresented in the literature (Mlinarić et al., 2017). Probably also in this study, therefore, publication bias must be considered when interpreting the results.

Also, regarding showing significant results, some studies showed significant and no significant results in the same domain. This can cause bias, for example, considering a study to be significantly effective in internalizing problems, but in reality, the study shows significant results in anxiety, but for instance, not in depression. It should be considered that, in this study, only a broad overarching view is given.

In this study, we included RCTs, CCTs, and group pre–posttest designs because these three designs (in this order) can be considered to provide the most reliable evidence (Bondemark & Ruf, 2015). Questionable is whether these types of designs are the most appropriate designs for (a part of) the research question posed in this study. For detailed, more qualitative information on interventions, case studies seem very suitable. Potential advantages of a single case study are seen in the detailed description and analysis to gain a better understanding of “how” and “why” things happen (Ridder, 2017).

Recommendations

Remarkably, seven studies did not describe their AT interventions sufficiently explicitly concerning the use of means and forms of expression and therapist behavior. This, while art materials/techniques and therapist behavior constitute the basis for AT interventions (Moon, 2012). Insight into the core elements of interventions helps us better understand why and how certain interventions work. By understanding these components of an intervention, we can compare interventions and improve the effectiveness of interventions (Blasé & Fixsen, 2013). Therefore, for future AT studies, it is recommended to present more information on used therapeutic perspectives, means, art materials and techniques, and therapist behavior.

The results of this study show that AT interventions for children and adolescents are characterized by a variety of materials/techniques, forms of structure such as giving topics or assignments, the use of language, and therapist behavior. These results point out to more specific aspects of the dual relationship of material–therapist, which contributes to

the effects, such as, for instance, responsiveness. More (qualitative) research into these specific aspects of the therapeutic relationship and the role of the relational aspects of the material could provide more insight and be of great value regarding AT for children and adolescents.

The results of the AT interventions show that AT leads to positive results for psychosocial problems, although, in some studies, both significant and not significant results were seen within a domain. A more personalized research approach, which is linked to individual treatment goals, can possibly give more clarity on the effects. Goal Attainment Scales (GAS) can be considered useful for this purpose.

Conclusions

This study shows that the use of means and forms of expression and therapist behavior is applied flexibly. This suggests a responsiveness of AT, in which means and forms of expression and therapist behavior are applied to respond to the client's needs and circumstances, thereby giving positive (significant) results for psychosocial problems. Searching for specific elements in the use of materials and the three defined forms of therapist behavior that influence the result is therefore recommended.

APPENDIX

Chapter 2:
Systematic Narrative Review

Appendix A

Characteristics AT Interventions

Authors/Year	Applied Means and Forms of Expression	Art Materials	Therapist Behavior	Supposed Mechanism(s) of Change
1) Bazargan & Pakdaman (2016)	Painting sessions. Subjects had 45 minutes to one hour to draw. In the end, subjects had 15 minutes to talk with the therapist and other members about works, feelings, interests, and events. Topics: warm-up activities using painting and coloring, learning about art media, general topics, first childhood memory/family relations, and the directed mental image, visualization, dream and meditation, anger releasing.	Cardboard and acryl; paint and drawing materials	No information given	Reveal what they have inside; leads to new activities and enhances experiences; provides an individual with opportunities through which they can freely express their feelings, affections, needs, and knowledge; achieving a feeling of security towards unpleasant memories of a traumatic event; emotions and thoughts are influenced by conflicts, fears and desires and painting allows patients to express them symbolically; offering opportunities to regain a sense of personal agency; explore existential concerns; reconnect to the physical body
2) Beebe et al. (2010)	Opening activity, discussing the weekly topic and art intervention related to chronic illness, artmaking, opportunity for the patients to share their feelings related to the art they created, and closing activity. Inclusion of specific art therapy tasks designed to encourage expressions, discussion, and problem-solving in response to the emotional burden of chronic illness.	A variety of materials/ techniques were offered, including clay, papier-mache masks, paint, paper decoration forms, and markers.	Patients are encouraged by the art therapist to express their thoughts and feelings through art materials and interventions.	Helps to cope with troubling feelings and to master a difficult experience; experiences and feelings can be expressed and understood; being able to establish distance between themselves and their medical concerns; processing emotions through art, understanding that their problems are separate from themselves and that the children have an identity outside of their illness
eh-Pajooh et al. (2018)	The subjects had a white sheet of paper to paint freely. At the end of each session, the students explained their painting briefly in the group.	Painting equipment: marker, color pencil, crayon, gouache, and water; white piece of paper	No information given	Effective because it is enjoyable for children; able to express their emotions (e.g., grief, fear, and anxiety), feelings (e.g., whishes) and thoughts through projection which leads them to achieve social adjustment

Authors/Year	Applied Means and Forms of Expression	Art Materials	Therapist Behavior	Supposed Mechanism(s) of Change
4) Chapman et al. (2001)	The CATTI (Chapman Art Therapy Treatment Intervention) begins with a graphic kinesthetic activity, followed by a series of carefully worded directives to elicit a series of drawings designed to complete a coherent narrative about the event (trauma). After completing the drawing and verbal narrative, the child is engaged in a retelling of the event, using the drawings to illustrate the narrative.	Minimal art media	Children's emotional expressions are validated by the therapist as normal responses to the traumatic event to universalize their experience and reduce anxiety. During the retelling, numerous issues are addressed, including but not limited to misperceptions, rescue and revenge fantasies, blame, shame, and guilt, coping strategies, treatment and follow-up plans, traumatic reminders, and reintegration strategies.	Facilitation of the integration of the experience into one's larger, autobiographical life narrative; facilitating the expression and exploration of traumatic imagery as it emerges from memory and finds form; utilizing the integrative capacity of the brain by accessing the traumatic sensations and memories in a manner that is consistent with the current understanding of the transmission of experience to language
5) Freilich & Shechtman (2010)	The child undergoing the therapy selects a topic, and the materials, for a project of interest. When necessary, conducting role-playing and guided discussions are used to increase efficacy.	Materials needed for art projects, such as paper, paints, pictures, journals.	The therapist assists and supports the youngster in carrying the project out. The therapist's role is to help the child identify a meaningful experience, a difficulty, or a conflict. In the process of working on the art piece, the therapist encourages the child to express related feelings and concerns, to explore them, and to reflect on them.	The subject(s) selected in art therapy is a reflection of important issues in the child's life that cannot be expressed directly; reflection leads to the development of insight the selection of goals for change; focusing on emotional exploration of difficulties; identifying problems; sharing problems with the therapist; cathartic experiences that lead to an increase in self-awareness and insight; focusing on an exploration of emotions and reflecting on them
6) Hashemian & Jarahi (2014)	Painting therapy (not further described)	Not described	Not described	Adjustment to their surroundings and therefore changing their inappropriate behavioral patterns; indirect communication with children
7) Kymissis et al. (1996)	Synallactic Collective Image Therapy (SCIT): drawing of a picture. Afterward, a brief presentation and voting one for discussion. The originator gives a title, offers association to it, and say how he/she felt before and after drawing. Other members give their associations. The resulting overlapping of the patient association was the collective image, which represented the basic theme of the session.	Drawing on 12 by 18 inches construction paper with pencils and colored markers.	The therapist takes an active role, directing and encouraging group members in the art activity. The therapists made sure group rules for orderly behavior were maintained.	The opportunity to freely present thoughts and feelings in a non-verbal way, within the structure of the group; the availability of the drawing as a non-verbal channel of communication helping regulation of the level of anxiety, enjoying the group; using artwork facilitated the group process

Authors/Year	Applied Means and Forms of Expression	Art Materials	Therapist Behavior	Supposed Mechanism(s) of Change
8) Liu (2017)	All sessions contain two domains: externalizing the problem and finding solutions. The experience associated with stress is drawn on small white paper. The future solution contents will be drawn on colorful, larger paper. All artworks were gathered and reviewed at the end of the intervention (last session) together with the parents.	Small white paper and large colorful paper; a variety of materials/ techniques was offered, including drawing, painting, stress ball making, paper cutting, and paper folding	The therapist asks for what is better. The clients "stated needs for today'' are related to overall goal(s) for therapy. The client is complimented for his strengths/resources. The therapist askes exception/difference questions. Scaling questions are being asked. Coping questions related to the client's abilities that emerged are being asked. Feedback on the helpfulness of the session is asked. The miracle question is being asked. The client is asked, 'what else' was better in today's session. The families are given compliments about their contributions as the session ended. The client is asked to draw what they wish to draw/ make but related to their problems. The therapist elicits the client to talk about the drawing and express their feeling. The therapist embeds most of the solution-focused questions and skills in the art-making process and guides the conversation. The therapist monitors that the drawings or the handcrafting are related to the intervention goal and that the session's drawing is focused on future, positive, and brightness.	SF-AT is a combination of Solution Focused Brief Therapy with Art Therapy. SF-AT group therapy in this study adopts a synthesized version of the constructivism theory and psychodynamic theory. This study also uses systems theory to frame the design of SF-AT and elucidate the mechanism of change. SF-AT addressed anger, stress, and emotional issues; nonjudgmental acceptance and unconditional care to build rapport and facilitate change; therapeutic alliance; a practice promoting strength-based and positive perspective; empowerment by the strength-based treatment; positively construct information and experience; through positive cognitive construction and social construction, clients can build a new way of problem viewing and solving; this can help with negative thoughts and social impairments

Authors/Year	Applied Means and Forms of Expression	Art Materials	Therapist Behavior	Supposed Mechanism(s) of Change
9) Lyshak-Stelzer et al. (2007)	Trauma-focused art therapy (TF-ART). Scripted trauma-specific art activities (directives) for each session. Each participant completed at least 13 collages or drawings compiled in a handmade book format to express a narrative of his or her "life story." The activities sought to support the youth in reflecting on several questions: What is the difference between feeling safe and unsafe with (a) your peers in the hospital; (b)peers on the street; (c) a staff member; (d) adults in your community; (e) peers at home; and (f) adults at home? When are feelings of fear and anger helpful, and how can they lead to increasing safety? What makes a place safe or dangerous? Can you contrast dangerous activities that you have engaged in during the past with safe activities? What made them safe or dangerous? A second phase of the protocol focused on sharing trauma-related experiences and describing coping responses. On the last session, each presented the book in its entirety to his or her peers.	Collage technique, drawing; making a book	Each adolescent was asked at the beginning of the session to do a "feelings check-in" describing how he or she was feeling in the moment using a single word or sentence, and a "feelings check-out" at the end of the session. After the art-making period, during which minimal discussion took place, the youth were encouraged to display their artwork to peers. They were encouraged but not required to discuss dreams, memories, and feelings related to their trauma history and symptoms. A second phase of the protocol focused on sharing trauma-related experiences and describing coping responses. For example, the were asked to share "some of the words that others have used to hurt you or help you in the past;" to describe nightmares, bad dreams, distressing memories, and flashbacks, as well as strategies used to cope with them; and to discuss traumatic "triggers" that served as reminders of trauma memories or feelings, along with coping strategies.	Exploring fundamental experiences associated with safety and threat; creating an opportunity for ways of orienting to safe and dangerous situations using non-verbal representations; imaginal representations used as the basis for verbalizing the associated experiences in a supportive social context; art products as a starting point for sharing traumatic experiences reduces threat inherent in sharing experiences of trauma by permitting a constructive use of displacement via the production of imagistic representations

Authors/Year	Applied Means and Forms of Expression	Art Materials	Therapist Behavior	Supposed Mechanism(s) of Change
10) Ramin alavinezhad et al. (2013)	A diversity of topics and means. Including: Image-making and imaginary drawing. Children started to image-making then draw whatever they prefer in their imaginary area; Children play-act and draw simple bad/good feelings in the group setting; Overall, drawing and discussing/exploring the result. At the ninth session, all the children worked on a group project to bring closure by drawing a ceremony on a large paper together with comments. At the end, a small exhibition of artwork was made.	Drawing on large paper, not further described.	An active role of the art therapist, for instance, recognizing dysfunctional ideas and beliefs children hold about themselves, their relations, or interactions with the environment, and helping children identifying and restructuring them by using self-monitoring, problem-solving strategies, and learning coping responses and new skills.	A cognitive-behavioral approach. Nonverbal expression that is possible in art therapy is a safe way; imagination in combination with art-making; in art therapy, children can manage difficult emotions such as anger; art therapy can improve emotional understanding and anger management; in art therapy interventions children can learn coping responses, new skills or problem-solving techniques, increasing sense of belonging, to offer a non-threatening way and to communicate complex feelings and experiences.
11) Regev & Guttmann (2005)	The participants in control group B (*art therapy group*) created art projects, which were handled in an art-therapy fashion. Each meeting was divided into two parts. In the first 20 minutes, the children could freely choose to work with any of the available art-project materials and create (or continue to create) whatever they wanted. Then the work would stop, and the children would gather in a circle to discuss a child's (in turn) project.	A variety of materials	The art therapist supervised the group. Led by the art therapist, the discussion focused on questions such as: "how was the project done", what it reminded the creator of, if it was similar to or different from other projects that he/she had made, if it reflected the way he/she felt that day, if it reflected anything that was happening in his/her life, and what he/she could learn from the project about himself/herself.	Artwork as a medium for self-understanding; art-work as a defense mechanism; art-work helps to ease personal difficulties; art-work helps to achieve emotional relief; art-work helps to achieve positive self-concept

Authors/Year	Applied Means and Forms of Expression	Art Materials	Therapist Behavior	Supposed Mechanism(s) of Change
12) Richard et al. (2015)	The intervention includes four sets of facial features (eyes, noses, mouths, and brows) representing four different emotions (happiness, sadness, anger, and fear), as well as a mannequin head. The participant was asked to create four different faces, representing happiness, sadness, anger, and fear. The participant was directed to choose a mouth, nose, eyes, and brows (in that order) that represented the correct emotion.	Four sets of facial features (eyes, noses, mouths, and brows); a mannequin head. Facial features were molded with Super Sculpey. Scotch, Adhesive Putty was used to attach the facial features to the Styro Full Blank Head. On the head paint was applied.	The participant was directed to choose a mouth, nose, eyes, and brows (in that order) that represented the correct emotion. For example, the researcher asked: which one of these mouths do you think would be a happy mouth? The participant received two attempts at choosing the correct feature. If the correct feature was chosen, the researcher responded: yes, that is a happy mouth! If an incorrect feature was selected, the participant was redirected with a statement such as: I do not think that is a happy mouth. A happy mouth has ends that turn upward. Then the participant made a second attempt at selecting the correct feature. If this attempt also failed, the therapist directed the participant to the correct feature.	By using three-dimensional materials to recreate emotions with facial features first the Kinesthetic /Sensory level is engaged through touch, next the Perceptual/Affective level is activated as the face is directly constructed with the materials, and possibly the Cognitive/ Symbolic level can be mobilized to reinforce the identification of emotions; art activities involving tactile experiences help dissociative children connect through the ability to touch and create; information processing occurs at each of the first three levels on the ETC: Kinesthetic/Sensory, Perceptual/Affective, and Cognitive/Symbolic

Authors/Year	Applied Means and Forms of Expression	Art Materials	Therapist Behavior	Supposed Mechanism(s) of Change
13) Rosal (1993)	Two forms of art therapy: Art as therapy group (a) (experimental): unstructured, the children were encouraged to use the media and be creative with them. Cognitive-behavioral art therapy (b (Control): use of specific objectives, a stated theme, specific media, and discussion topics. Basic structure: muscle relaxation, imaginary activity, clean up, discussion. Use of cognitive-behavioral principles: behavior contingencies, imagery, modified desensitization, problem-solving techniques, relaxation, stress inoculation, verbal self-instruction.	In both groups, the materials ranged from paint, drawing pencils and pens to clay, collage, and construction parts.	Art as therapy group (a): The therapist was active, yet nondirective, by controlling the environment through manipulations of ambiguity and anxiety. Therefore, if tensions in the group were brought to a dangerous level, the therapist intervened through clarifying issues and helping the group find alternatives to the problem. The therapist also assisted any child who was having difficulty with a specific medium. Cognitive-behavioral art therapy group (b): delineated verbal instructions, directions for art media.	The intervention *art as therapy* could change LOC perceptions through the process of creating art and the experience with the art as a vehicle for discussion and feedback from others. The type of group therapist behavior was based on Whitaker and Lieberman's interpersonal interaction approach to group therapy. Intervention concerning cognitive-behavioral art therapy. The act of producing art may reinforce or enhance internal LOC (Locus of Control) perceptions; each line placed on a paper is the direct result of the child's behavior; A child's movement is reinforced visually by the mark that is produced; there is a direct link between behavior and outcome; drawings are derived from inner experiences The inner experiences may be perceptual, emotional or cognitive processes that are transformed into visual display Without even examining the content, a drawing is a tangible record of internally controlled behaviors; in art therapy, these tangible records are discussed, further reinforcing a child's inner experience.
14) Schreier al. (2005)	Chapman Art Therapy Treatment Intervention (CATTI): one-to-one session at the child's bedside, completion 1 hour. Starting: drawing activity. Drawings are used, creating a narrative about the event; the child can discuss each drawing. Then a retelling of the event, using the drawings to illustrate the narrative.	Minimal art media for drawing.	The child is encouraged to discuss each drawing. During the retelling, numerous issues are addressed, including misperceptions, rescue and revenge fantasies, blame, shame, and guilt, coping strategies, treatment and follow-up plans, traumatic reminders, and reintegration strategies.	The art intervention offers an opportunity for the child to sequentially relate and comprehend the traumatic event, transport to the hospital, emergency care, hospitalization, and treatment regimens, and post-hospitalization care and adjustment; the drawing activity is designed to stimulate the formation of images by activating the cerebellum.

Authors/Year	Applied Means and Forms of Expression	Art Materials	Therapist Behavior	Supposed Mechanism(s) of Change
15) Siegel et al. (2015)	Patients selected buttons, threads, and words with which they constructed their Healing Sock Creature. The imaginary creatures were sewn and stuffed with magic bean, sand, or fiberfill. Children placed wishes inside the Healing Sock Creature to express their feelings.	Unused hospital socks and small kidney dishes to place buttons and threads. Sewing materials, magic beans, sand, fiberfill.	The therapist becomes the co-creator under the direction of the child by forming a bond of trust as the child shares their design ideas, which may include conversations about symbolic meanings of buttons or colors or threads.	The creative process, exploring deeper meanings in a patients experiences; integrating psychotherapy with multi-arts, the intermodal approach can help children access, process, and integrate traumatic feelings in a manner that allows for appropriate resolution, to reduce stress; this therapy uses imagination, rituals, and the creative process; a symbol can hold a paradox that the rational mind cannot fully explain; choosing a special button or writing a wish mirror, characterizes the child's psyche at this crucial moment; it enables the child to visualize and let go of troubling and unanswerable questions, thus relieving suffering.
16) Tibbets & Stone (1990)	Individual artwork (not further described).	-	The central focus of the art therapist was to assist the subjects to increase in the present their sense of personal power and responsibility by becoming aware of how they blocked their feelings and experiences anger. The approach was non-interpretive, with the participants creating their direct statements and finding their meanings in the individual artwork they created.	Non-interpretive. The art therapy approach utilized in the present study was consistent with the principles of gestalt. The primary role of the therapist as listening, accepting, and validating; art therapy is an integrative approach utilizing cognitive, motor, and sensory experiences on both a conscious and preconscious level; it initially appears less threatening to the client.

Authors/Year	Applied Means and Forms of Expression	Art Materials	Therapist Behavior	Supposed Mechanism(s) of Change
17) Jang & Choi (2012)	Each session had the following phases: introduction, activity, and closing. In the introduction phase, the participants greeted one another, did some warm-up clay activities, and were introduced to theme-related clay techniques. In the activity phase, they did individual or group-based activities making shapes using clay. In the closing phase, feedback about their performance was exchanged.	Clay	The art therapist asks questions. No further information provided.	To shed a sense of helplessness or depression with their physical movement of patting or throwing clay pieces in the activities; the continued and repeated experience of pottery-making throughout the sessions contributed to bringing about a positive change in the regulation and expression of emotions; the plasticity of clay made it easy for the participants to finish their clay work successfully; curiosity, toward the process through which a clay piece was transformed into glassy pottery and molding techniques or kiln firing that were learned in each session were factors that contributed to the positive changes; the plasticity of clay also enabled the participants to get a sense of control over the material because they could change the shape as they wished, which contributed to a positive evaluation of their own performance; witnessing the transformation of a piece of clay to complete, glassy pottery, combined with the positive feedback given to the participants, caused a sense of achievement and optimistic outlook on the future.
18) Khadar et al. (2013)	Painting therapy	Not described	The art therapist is present and does not impose interpretations on the images made by the individual or group but works with the individual to discover what the artwork means to the client.	The child makes art in the presence of his or her peers and the therapist, this exposes each child to the images made by other group members on both a conscious and an unconscious level; to learn from their peers and to become aware that other children may be feeling just like them; make meaning of events, emotions or experiences in her life, in the presence of a therapist; the process of drawing, painting, or constructing is a complex one in which children bring together diverse elements of their experience to make a new and meaningful whole; through the group, they learn to interact and share, to broaden their range of problem solving strategies, to tolerate difference, to become aware of similarities and to look at memories and feelings that may have been previously unavailable to them; the image, picture or enactment in the art therapy session may take many forms (imagination, dreams, thoughts, beliefs, memories, feelings); the images hold multiple meanings and may be interpreted in many different ways.

Authors/Year	Applied Means and Forms of Expression	Art Materials	Therapist Behavior	Supposed Mechanism(s) of Change
19) Khodabakhshi Koolaee et al. (2016)	First session: Initial introduction, declare short objective of sessions. Second session: Collaborative painting among therapist and child: make a closer contact with children. Third session: Technique of children's scribble: reduce resistance and anxiety in children. Fourth session: Photo collage: Increase cooperation during the treatment process. Fifth session: Drawing with free issue: emotional discharge. Sixth session: Drawing the atmosphere of the hospital and the inpatient portion: express anxiety of children related to atmosphere hospital. Seventh session: Drawing family as animal: evaluate the attitude and relationship of children with family. Eighth session: Anger collage for expressing children's anger and aggressiveness. Ninth session: Drawing with free issue: express emotion. Tenth session: Evaluate the effectiveness of drawing on aggressiveness and anxiety. Eleventh session: Follow up session.	Photo collage, drawing. Not further described.	Not described	Painting provides opportunities to communication and nonverbal expression; it can serve as a tool to express the emotions, thoughts, feelings, and conflicts; anxiety symptoms of children emerge in metaphorical symbols such as play and painting; drawing permits the children to convey their thoughts and dissatisfaction with environment-related to the hospital, they can express their emotion in safe atmosphere: drawing improves anger management and emotional perception with learning the accurate coping response, the techniques, and problem-solving skills, and provides the non-invasive way to communicate in a complex emotional situation.

Authors/Year	Applied Means and Forms of Expression	Art Materials	Therapist Behavior	Supposed Mechanism(s) of Change
20) Pretorius & Pfeifer (2010)	Four themes: 1) Establishing group cohesion, and fostering trust by group painting, guided fantasy with clay, and story-making through a doll. 2) Exploration of feelings associated with the abuse by drawing feelings, drawing perpetrators, placing of these in boxes. 3) Sexual behavior and prevention of revictimization by role-playing and mutual storytelling 4) Group separation by painting, drawing, or sculpting feelings associated with leaving the group	Paint and drawing materials, not further specified, and clay.	Therapeutic behavior based on the existential-humanistic perspective, and incorporated principles from Gestalt therapy, the Client-centered approach, and the Abuse-focused approach	Group psychotherapy can ameliorate difficulties encountered in the use of individual therapies with sexually abused children, including an inherent distrust of adults, fear of intimacy with and disclosure to adults, secrecy and defensive behavior; group therapy also offers children the opportunity to realize that they are not alone in their experiences and that other children have had similar experiences, this realization may be a great source of relief that helps reduce the sense of isolation; art therapy involves a holistic approach in that it not only addresses emotional and cognitive issues but also enhances social, physical and developmental growth; art therapy appears to help with the immediate discharge of tension and simultaneously minimize anxiety levels; the act of external expression provides a means for dealing with difficult and negative life experiences; art therapy, therefore, not only assists with tension reduction but also with working through issues thereby leading to greater understanding; Group art therapy acknowledges the concrete thinking style of latency-aged children and accordingly provides an opportunity for non-verbal communication; contact with group members may also decrease sexual and abusive behaviors toward others.

Authors/Year	Applied Means and Forms of Expression	Art Materials	Therapist Behavior	Supposed Mechanism(s) of Change
21) Ramirez (2013)	Six interventions were repeated twice: 1) Predesigned mandala template/ complete design. 2) Create self-portraits 3) Design a collage.4). Mold clay into a pleasing form, which could be an animal, a person, an object, or an abstract form.5 Visualize a landscape from imagination and paint it. 6) Arrange a variety of objects in a pleasing orientation and draft the still life with a pencil	Color pencils, markers, crayons, and oil pastels; charcoal, ink, or mixed media, clay; acrylic paints or watercolors	The therapist facilitates the creation of the artistic product and is supportive. The art therapist suggests expressive tasks in a manner that shows respect for their way of reinventing meaning and involves subject matter that is of interest to the teen.	The creative process involved in artistic self-expression helps people to become more physically, mentally, and emotionally healthy and functional, resolve conflicts and problems, develop interpersonal skills, manage behavior, reduce stress, handle life adjustments, and achieve insight.
22) Steiert (2015)	The given theme was Heroes; no further information provided	An extensive range of different materials was available. There was wood, stone, plaster, and a comprehensive selection of paint and drawing materials, also felt and other textiles.	Decisions on what to do, which materials to use were discussed with the patients. The shaping of the heroes was supported by talking about this, viewing comics, searching images, watching videos. For dealing more intensely with the heroes, suggestions from the therapist were given.	The processing on a symbolic, playful, and imperious level, gives the child the opportunity for a gradual approach for their conflicts, without defense mechanisms undermining it; heroes and heroic stories support children and adolescents not just in their childhood development but have potentially also a positive influence on processing disease; in the children and adolescents can find their emotional reality and find solution options for the handling of these conflicts' themes.

Authors/Year	Applied Means and Forms of Expression	Art Materials	Therapist Behavior	Supposed Mechanism(s) of Change
23) Wallace et al. (2014)	Expression of feelings by mandala drawing and painting. Exploration of changes in family functioning by a family drawing with pencils, markers, and oil pastels.	Paint, not further specified, drawing materials such as pencils, markers, and oil pastels	The art therapist provided general art therapy guidelines such as that there are no mistakes or a right or wrong way to express themselves in art. The art therapist encouraged the participants to explore the art materials, to relax, and to have fun. The art therapist inquired about colors and feelings depicted and asked the participant to share examples of why each feeling had been or was being experienced. The art therapist normalized and validated the siblings' feelings, provided support and empathy.	Art therapy may offer a nonverbal means of communication, an emotional outlet, and a source of empowerment and control for this population; art therapy can assist children in communicating difficult feelings and in reducing symptoms of anxiety and posttraumatic stress; art therapy can stimulate the verbalization of hospital experiences and resolving anxiety and fear-provoking thoughts; art therapy offers an opportunity for making choices; the process of creating art may provide a sense of control for siblings during a time when many decisions are beyond their control; the intervention group had significantly lower PTSS, it appears that the siblings gained mastery and processed their emotional responses; art therapy assisted in reintroducing control into the healthy siblings' life and allowed them to express and process the challenges and changes that they were experiencing; art therapy allowed the siblings to express emotion without resorting to words; art therapy seems to have assisted the healthy siblings in gaining a level of comfort that facilitates asking questions, which can result in an effective educational intervention.
24) Walsh (1993)	AFI (art future-image intervention): Clients met together, formulated plans for a future identity, and created a future self-image caricature poster from an enlarged polaroid photograph and a career/ body-image packet designed by the researcher.	Polaroid photos; drawing materials.	Not described	Identity formation; promotion of qualities associated with psychological health: (a) exploration of various career options, (b) decision making, and (c) identity achievement.

Authors/Year	Applied Means and Forms of Expression	Art Materials	Therapist Behavior	Supposed Mechanism(s) of Change
25) Chaves (2011)	Creating therapeutic art books	A diversity of materials, not further specified	The art therapist offers the individual social support; the therapist never criticized the participants work, attempted to avoid giving art instruction, and created a safe and accepting environment.	The creation of art books is a way for individuals to "visually" document their journey throughout their hospitalization and recovery process. Through artmaking, especially within the contained boundaries of a book, individuals are provided with a bridge that can help them move toward their authentic selves. Through books, individuals can track their recovery process chronologically, can review their emotional progress, and can choose what they want to create, without their creations being judged by others. The books are a definite shape, and the books can be closed, they act as a container for the individual's emotions, thoughts, and sense of self. The book becomes an investment in everyone's recovery and a reflection of their process.
26) D'Amico & Lalonde (2017)	The sessions employed art-based interventions using the art-based interventions focused on developing self-expression, creativity, and the consolidation of social skills through artmaking, discussion, play, and collaborative projects.	Various two- and three-dimensional art materials	Therapists employed various art-based techniques and training strategies to increase student practice and performance of desired social behaviors. If any child required additional instruction for a particular social skill or problem behavior, a therapist addressed this in a more individualized manner. in the therapeutic group session. The art therapists created a variety of opportunities for the children to cooperate and to build cohesion among group members. The art therapists used these and other therapeutic activities to help the children improve their social functioning and work through personal issues, while providing them with opportunities for behavioral practice to enhance self-esteem and well-being.	It provides opportunities to solve social problems visually and in a concrete and creative way; it offers a way to learn information in an unconventional, nonverbal, comprehensive, and expressive manner through rich sensory experiences with a variety of art materials; the combination of art and therapy is pertinent to address the individual's feelings of anxiety, depression, and frustration through empathetic listening, visual feedback, and using creative projects to build a trusting relationship; art therapy can empower children to become active participants in their treatment, and to use their creativity in a meaningful and productive manner.

Authors/Year	Applied Means and Forms of Expression	Art Materials	Therapist Behavior	Supposed Mechanism(s) of Change
27) Devidas & Medonca (2017)	Art therapy included theme drawing, theme painting, making future portrait, freehand drawing, clay modeling, scribble drawing, paper bags making, preparing stuffed toys, finger painting, and attach a drawing to a balloon.	Drawing and painting materials including finger paint (not further described); clay, materials for making paper bags; stuffed toys	Not described	Art can raise the self-esteem and promote psychological comfort; Art is the language of mind; emotions and feelings can be best expressed through art.
28) Epp (2008)	Conversation skills are practiced in an unstructured manner (10 minutes), with leading questions. Then a structured art activity (30 minutes), with instructions and next unstructured free time (20 minutes).	A variety of materials and activities is used.	Cognitive-behavioral strategies are used throughout the group therapy session. An example of this would be a therapist asking a student, "When you are frustrated/happy, what do you say to yourself? What is your self-talk?" Usually, the group is led in a brainstorming exercise to discover ways to change self-talk to improve feelings or make better choices \ with difficult feelings. Social skills are "taught" by therapists who carefully watch how children approach or do not approach each other, intervening in a helpful, non- threatening, concrete manner so that the children learn how to structure their playtime in a social context.	Cognitive-behavioral strategies are used. Through the child's art, the therapist can gain insight into what the child is experiencing, which is information that is not readily available through verbal means; art therapy as a component to social skills training may increase the willingness of children to participate because art is an activity that they find acceptable; art therapy offers a way to solve problems visually; it forces children with autism to be less literal and concrete in self-expression; it offers a non-threatening way to deal with rejection; it replaces the need for tantrums or acting-out behaviors because it offers a more acceptable means of discharging aggression and enables the child to self-soothe; use of icons, symbols, and social stories help the children to remember what they were taught; when children and therapists collaborate to custom-make these symbols, icons, and stories for each child's unique challenges and goals, the children take ownership of them and integrate them into their internal experience; Comic strips are drawn by the teacher and then used to "teach" to the children, with discussion and analysis of the portrayed events. Children who are visual learners take in this information in a way that stays with them

Authors/Year	Applied Means and Forms of Expression	Art Materials	Therapist Behavior	Supposed Mechanism(s) of Change
29) Hartz & Thick (2005)	The specific art therapy interventions used during the study included magazine collage and yarn basket-making. The same projects and an identical selection of materials were provided to all participants, regardless of the intervention approach. All participants received group therapy with their core group 5 days a week as their primary treatment and participated in several adjunctive therapies weekly (including art therapy). A majority also had monthly family therapy sessions, facilitated by their core-group leader.	A variety of materials, including magazines and yarn, for basket making.	In the *art as therapy (a)* approach, the design potentials, technique, and the creative problem-solving process were highlighted. Artistic experimentation and accomplishment were emphasized. In the *art psychotherapy approach (b)*, a brief psychoeducational presentation was employed, and abstraction, symbolization, and verbalization were encouraged. during facilitation, Personal awareness and insight were emphasized.	art as therapy (a) focuses on developing mastery, creating structure, and sublimating conflicts to strengthen the ego; the confidence and authenticity that participants reported suggest the development of meaningful and supportive relationships; experiencing growth and mastery in art therapy provided participants with an experience of success and pride transferable to other areas of their lives. *Art psychotherapy* (b) is a cognitively based approach that emphasizes insight and involves some verbal processing of the art products.
30) Higenbottam (2004)	Group activities included several spontaneous art sessions as well as some group directives inspired by the writings of Shirley Riley (1999), Carol Ross (1997), Don Miguel Ruiz (1997) as well as Daley and Lecroy's Go Grrrls Program (2001).	Not described	The art therapist is a group facilitator and a cultural mediator. Encouraging the client's creative expression as well as teaching and modelling coping skills. The students were given opportunities to make their own decisions during the group, and there were no group rules per se. The therapist set some rules to prevent art therapy time being used for gossip. Handouts with developmentally appropriate or topical information were given. As the group evolved and certain subjects or questions arose, handouts evolved to reflect this.	Art therapy is a modality that commonly diminishes adolescent resistance; art therapy group for adolescent females, focusing on self-esteem and body image can provide the opportunity for action, expression, and discussion at a time when such explorations are most important to development; adolescent art therapy groups provide a necessary forum where teenagers can safely express themselves, exert independence and make safe decisions.

Authors/Year	Applied Means and Forms of Expression	Art Materials	Therapist Behavior	Supposed Mechanism(s) of Change
31) Jo et al. (2018)	A manualized art intervention program: Sessions 1 to 3 consisted of the "getting to know" stage, sessions 4 to 8 were the "releasing" stage, and sessions 9 to 12 were the "soaring" stage. The "getting to know" stage focused on easing the tense atmosphere by building a rapport between the therapist and children, as well as helping the children become more familiar with the material and gain an awareness of their inner self. The "releasing" stage was designed to help the children experience the freedom of feeling and relieving their pent-up feelings through expression. It also dealt with their relationships with the parents and siblings within the family. The "soaring" stage focused on providing positive feedback in the form of hope for the future and positive awareness of one's current self.	All three stages used a variety of materials and activities.	Not described	The art intervention is a tool that can be effective in helping people overcome difficult experiences and psychologically cope by encouraging emotional expression via art; this intervention can be particularly effective in children since it allows those who are unable to accurately verbalize their thoughts and feelings to convey these more comfortably; it is assumed that a significant improvement in self-esteem might help children recognize themselves positively through expressing their feelings freely and offer greater emotional support; the externalizing problems scale and its aggressiveness subscale, emotional instability, and other categories showed a significant decrease, which is believed to be the result of the children sublimating their aggressive energy through their art-work, resulting in greater emotional stability.
32) Pifalo (2002)	Session 1 and two: group puzzle mandala.3: creation of two lists of feelings. 4: Creation of a "container" for these feelings/several materials. 5: Drawing of "roadmaps." 6: Puppet making. 7: Clay representation of significant people. 8: Making of a bracelet. 9: Designing a safe place. 10. Sharing creations of products in the group	A variety of materials, including puzzle mandala. Drawing materials. Materials for making a puppet; clay; materials for making a bracelet	The art therapist "offers a container" that allows the freeing up of visual or kinesthetic imagery, and still allows sufficient emotional distance from overwhelming pain. The art therapist acts as a witness to the trauma. The role of the art therapist was to facilitate the negotiation of a safe passage between the poles of constriction and intrusion in discussions between the girls.	A combination of art therapy and group process. The images that participants created individually and as a group gave a voice to the powerful emotions that they had previously suppressed; the stultifying bonds of silence and secrecy- the powerful weapons of the perpetrator-were broken as each girl found the courage to identify her feelings and speak them aloud within the safety of the group; both the group members and the images that they created bore witness to their rage, grief, pain, and loss; the art-work allowed the group members to create containers for their rage and their tears.

Authors/Year	Applied Means and Forms of Expression	Art Materials	Therapist Behavior	Supposed Mechanism(s) of Change
33) Pifalo (2006)	A combination of art therapy, cognitive behavioral therapy, and group process to address the therapeutic issues related to childhood sexual abuse. Not further specified.	A variety of materials, not further specified.	Not described	Cognitive-behavioral therapy offers clear-cut goals for trauma-focused therapy; art therapy "cuts to the chase" in a way that talk therapy alone cannot because art therapy does not rely strictly on a verbal mode of communication; art therapy is uniquely suited to promote basic goals of crisis intervention involving cognition and problem-solving, and ventilation of affect; the use of image-based interventions such as creating containers to express and release powerful emotions, making maps to organize a coherent trauma narrative and set future goals, using multiple media to illustrate the photographic nature of traumatic memories, and graphically representing internal and external sources of support, provides an opportunity for traumatized children to express what they may not yet be able to verbalize.
34) Rowe et al. (2017)	The art therapy Interventions delivered within the sessions were tailored to the client's specific needs and therapeutic goals, as established by the client, the family, and the therapist (not further described).	Not described	Art therapists worked with their clients to form therapeutic goals during initial sessions, followed by both structured and unstructured weekly art therapy sessions (not further described).	Art therapy is an effective psychotherapy for traumatized individuals based on the theory that trauma is stored in the memory as imagery, and art-making is an effective tool for processing these images; ATI's school-based art therapy program is uniquely suited to serve its adolescent refugee clients because a perceived sense of safety at school and of school belonging protects against PTSD, depression, and anxiety; the program seeks to develop clients' strengths as well as ameliorate negative symptoms associated with the refugee experience, such as depression and anxiety.

Authors/Year	Applied Means and Forms of Expression	Art Materials	Therapist Behavior	Supposed Mechanism(s) of Change
35) Saunders & Saunders (2000)	Not described. Different for all individual subjects.	Not described	The therapeutic relationship between client and therapist is one that must be developed and nurtured by the art therapist to facilitate the therapy process. Both the product and the associative references may be used by the therapist to help the client find a more compatible relationship between his/her inner and outer world. A positive therapeutic relationship. Ultimately, the art therapist guides his/her client through to the therapeutic goals determined by the nature of the client's assessed needs.	Art therapy uses the modality of art media to help clients express their thoughts, feelings and experiences; the use of art as therapy implies that the creative process can be a means of both reconciling emotional conflicts and of fostering self-awareness and personal growth; creating a work of art provides the client with a vehicle for self-expression, communication, and growth; process, form, content and/or associations become important for what each reflects about personality development, personality traits, and the conscious behavior and unconscious motivation; art therapy is the modality of choice for helping children, and adults, who find it difficult to verbalize their feelings and to acknowledge them to themselves because of their age, developmental level, lack of trust, fear of acknowledging the unknown, or mental illness; One of the central features of art therapy is its ability to help children become more communicative about their feelings and less likely to either internalize them in unhealthy ways or to act them out in destructive ways.

Authors/Year	Applied Means and Forms of Expression	Art Materials	Therapist Behavior	Supposed Mechanism(s) of Change
36) Sitzer & Stockwell (2015)	Students engaged in art therapy combined with CBT and DBT modalities. Students learned to listen, describe their art-work and personal experiences, give feedback and encouragement to their peers.	A variety of materials and activities was used; not further described	The art therapist provides a safe and protected space so that the child can model the experience of positive affect regulation.	Art therapy combined with CBT and DBT modalities. Communication skills are the main vehicle of change, from the development of trust in module one, through mindfulness module six; students learned to listen, describe their art-work and personal experiences, give feedback and encouragement to their peers; art therapy provides the medium and expressive capacity to elicit several positive resilience characteristics; the activation of positive emotions, increasing emotional self-efficacy, and improved self-esteem walks lock-step with resilience; Mindful mandalas are a quiet, non-verbal art directive designed to facilitate a meditative experience; post-artwork discussion includes review all skill-sets taught in the program: identification of beliefs that contribute to optimism, emotional regulation skills, and stress management, communication skills, mindfulness thinking.
37) Stafstrom et al. (2012)	Each session included a different discussion topic and art activity designed to enhance positive adjustment to epilepsy. 1: Self-portrait inside/outside box, drawing, and collage. 2: A memory or feeling about epilepsy, drawing, and painting media. 3: Mandala of personal symbols, drawing media 4: A dream or goal for the future, diorama with digital photo portraits, mixed media.	Drawing materials; materials to make a collage; painting materials; digital photos; mixed media	Each session is facilitated by an experienced art therapist. (not further described).	Art is a projective technique that can be used to assess the emotional and psychological challenges that affect children and adolescents; artwork allows children to express their feelings in a way that they may find difficult verbally; artistic creations contain symbols and metaphors that articulate the importance of a disorder in a child's life and experience; children often find expression through art to be empowering and enjoyable.

Appendix B
Searchstrategy/Searchstrings

Pubmed
((“Art Therapy”[Mesh] OR Art therapy[tw] OR arts therapy[tw] OR Clay modelling[tw] OR Self-expression[tw] OR self expression[tw]) AND (“Behavioral Symptoms”[Mesh] OR “Anxiety”[Mesh:NoExp] OR “Phobia, Social”[Mesh] OR “Psychosomatic Medicine”[Mesh] OR “Psychophysiologic Disorders”[Mesh] OR “Attention”[Mesh] OR “Disruptive, Impulse Control, and Conduct Disorders”[Mesh] OR Aggress*[tw] OR Depress*[tw] OR Affect*[tw] OR Attach*[tw] OR Reaction*[tw] OR Anxiety[tw] OR Seperat*[tw] OR Phobia[tw] OR Psychosomatic[tw] OR Attent*[tw] OR Disrupt*[tw] OR Impulse control[tw] OR Conduct disorder[tw] OR Trauma[tw] OR Development disorder*[tw] OR developmental disorder*[tw] OR Emotional disorder*[tw] OR Behavior disorder*[tw] OR behavioral disorder*[tw] OR Autism[tw] OR Psychosocial adjustment[tw] OR Concentration[tw] OR Juvenile delinquency[tw]) AND (“Child”[Mesh] OR “Adolescent”[Mesh] OR Child[tw] OR Adolescen*[tw] OR Youth[tw] OR Juvenile[tw]) AND (“Randomized Controlled Trial” [Publication Type] OR Random* OR Clinical trial OR Controlled clinical trial OR Clinical study))

Medline
((‘art therapy’/exp OR ‘art’/exp OR ‘creativity’/exp OR ‘art therapy’/exp OR ‘art’/exp OR ‘creativity’/exp OR “Art therapy” OR “arts therapy” OR “Clay modelling” OR “Self-expression” OR “self expression”) AND (‘psychological adjustment’/exp OR ‘emotional attachment’/exp OR ‘emotionality’/exp OR ‘emotional disorder’/exp OR ‘emotion’/exp OR ‘emotional stability’/exp OR ‘emotional stress’/exp OR ‘behavior disorder’/exp ‘depression’/exp OR ‘anxiety’/exp OR ‘psychosomatic disorder’/exp OR ‘aggression’/exp OR ‘behavior disorder’/exp OR ‘concentration loss’/exp OR ‘impulsiveness’/exp OR ‘juvenile delinquency’/exp OR Aggress* OR Depress* OR Affect* OR Attach*OR Reaction* OR Anxiety OR Seperat* OR Phobia OR Psychosomatic OR Attent* OR Disrupt* OR ‘Impulse control’ OR ‘Conduct disorder’ OR Trauma OR ‘Development disorder*’ OR ‘developmental disorder*’ OR ‘Emotional disorder*’ OR ‘Behavior disorder*’ OR ‘behavioral disorder*’ OR Autism OR ‘Psychosocial adjustment’ OR Concentration OR ‘Juvenile delinquency’) AND (‘child’/exp ‘adolescent’/exp OR Child* OR Adolescen* OR Youth OR Juvenile) AND (‘randomized controlled trial’/exp OR Random* OR ‘Clinical trial’ OR ‘Controlled clinical trial’ OR ‘Clinical study’))

Cinahl + add in advanced search: preschool, child, and adolescents + exclude Medline
((MH “Art Therapy” OR “Art therapy” OR “arts therapy” OR “Clay modelling” OR “Self-expression” OR “self expression”) AND (MH “Behavioral and Mental Disorders+” OR Aggress* OR Depress* OR Affect* OR Attach* OR Reaction* OR Anxiety OR Seperat* OR Phobia OR Psychosomatic OR Attent* OR Disrupt* OR “Impulse control” OR “Conduct disorder” OR Trauma OR “Development disorder* OR “developmental disorder*” OR

"Emotional disorder*" OR "Behavior disorder*" OR "behavioral disorder*" OR Autism OR "Psychosocial adjustment" OR Concentration OR "Juvenile delinquency") AND (MH "Child" MH "Adolescence+" AND Child* OR Adolescen* OR Youth OR Juvenile) AND (MH "Clinical Trials+" OR Random* OR "Clinical trial" OR "Controlled clinical trial" OR "Clinical study")) ((MH "Art Therapy" OR "Art therapy" OR "arts therapy" OR "Clay modelling" OR "Self-expression" OR "self expression") AND (MH "Behavioral and Mental Disorders+" OR Aggress* OR Depress* OR Affect* OR Attach* OR Reaction* OR Anxiety OR Seperat* OR Phobia OR Psychosomatic OR Attent* OR Disrupt* OR "Impulse control" OR "Conduct disorder" OR Trauma OR "Development disorder* OR "developmental disorder*" OR "Emotional disorder*" OR "Behavior disorder*" OR "behavioral disorder*" OR Autism OR "Psychosocial adjustment" OR Concentration OR "Juvenile delinquency") AND (MH "Child" MH "Adolescence+" AND Child* OR Adolescen* OR Youth OR Juvenile) AND (MH "Clinical Trials+" OR Random* OR "Clinical trial" OR "Controlled clinical trial" OR "Clinical study"))

PsycInfo + add in advanced search: preschool, school age, adolescence + human + clinical trial, empirical study, literature review, meta-analysis, qualitative study, treatment outcome

((DE "Art Therapy" OR DE "Creativity" OR DE "Art" OR DE "Educational Therapy" OR DE "Self Expression" OR "Art therapy" OR "arts therapy" OR "Clay modelling" OR "Self-expression" OR "self expression") AND (DE "Emotions" OR DE "Emotional Regulation" OR DE "Emotional Control" OR DE "Emotional Development" OR DE "Emotional Stability" OR DE "Emotional Trauma" OR DE "Empathy" OR DE "Emotional Adjustment" OR DE "Somatoform Disorders" OR DE "Psychosocial Readjustment" OR DE "Psychosocial Rehabilitation" OR DE "Anxiety" OR DE "Major Depression" OR DE "Aggressive Behavior" OR DE "Concentration" OR DE "Self-Control" OR DE "Predeliquent Youth" OR DE "Social Behavior" OR DE "Social Adjustment" OR DE "Social Learning" OR DE "Imitation (Learning)" OR DE "Imprinting" OR DE "Social Phobia" OR DE "Behavioral Inhibition" OR DE "Trauma" OR Aggress* OR Depress* OR Affect* OR Attach* OR Reaction* OR Anxiety OR Seperat* OR Phobia OR Psychosomatic OR Attent* OR Disrupt* OR "Impulse control" OR "Conduct disorder" OR Trauma OR "Development disorder* OR "developmental disorder*" OR "Emotional disorder*" OR "Behavior disorder*" OR "behavioral disorder*" OR Autism OR "Psychosocial adjustment" OR Concentration OR "Juvenile delinquency") AND Random* OR "Clinical trial" OR "Controlled clinical trial" OR "Clinical study"))

The Cochrane Library + title, abstract, keyword

(("Art Therapy" OR "arts therapy" OR "Self-expression" OR "self expression") AND (Child* OR Adolescen* OR Youth OR Juvenile) AND ("Randomized Controlled Trial" OR Random* OR "Clinical trial" OR "Controlled clinical trial" OR "Clinical study"))

Web of Science

((“Art Therapy” OR “arts therapy” OR “Self-expression” OR “self expression”) AND (Child* OR Adolescen* OR Youth OR Juvenile) AND (“Randomized Controlled Trial” OR Random* OR “Clinical trial” OR “Controlled clinical trial” OR “Clinical study”))

Google Scholar

“Art Therapy” OR “arts therapy” OR “Self-expression” OR “self expression” AND Children OR Adolescents OR Youth OR Juvenile AND “Randomized Controlled Trial” OR Randomized OR “Clinical trial” OR “Controlled clinical trial” OR “Clinical study” AND “psychosocial problems” OR Affective OR Attachment OR Reactions OR Anxiety OR Seperation OR Phobia OR Psychosomatic OR Attention OR Disruptive OR “Impulse control” OR “Conduct disorder” OR Trauma OR “Development disorder OR “developmental disorder” OR “Emotional disorder” OR “Behavior disorder” OR “behavioral disorder” OR Autism OR “Psychosocial adjustment” OR Concentration OR “Juvenile delinquency”

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((“Art Therapy” OR “Color Therapy” OR “art therapy” OR “arts therapy” OR “art therapies” OR “arts therapies” OR “visual art therapy” OR “visual arts therapy” OR “Color Therapy” OR “Color Therapies” OR “Colour Therapy” OR “Colour Therapies” OR “painting therapy” OR “drawing therapy” OR “sculpting therapy” OR “clay therapy” OR “clay sculpting” OR clay model*) AND (“Behavioral Symptoms” OR “Emotional Adjustment” OR “Social Problems” OR “Psychosocial Adaptation” OR “Psychophysiologic Disorders” OR “Mental Disorders” OR Behavior OR Aggress* OR Depress* OR Affect* OR Reaction* OR Anxiety OR Seperat* OR Phobia OR Psychosomatic OR Attent* OR Disrupt* OR “Impulse control” OR “Conduct disorder” OR Trauma OR “Development disorder*” OR “developmental disorder*” OR “Emotional disorder*” OR “Behavior disorder*” OR “behavioral disorder*” OR Autism OR “Psychosocial adjustment” OR Concentration OR “Juvenile delinquency”) AND (Child* OR Adolescen* OR Youth OR Juvenile) AND (“Randomized Controlled Trial” OR Random* OR “Clinical trial” OR “Controlled clinical trial” OR “Clinical study”)

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((“Art Therapy” OR “arts therapy” OR “Self-expression” OR “self expression”) AND (Child* OR Adolescen* OR Youth OR Juvenile) AND (“Randomized Controlled Trial” OR Random* OR “Clinical trial” OR “Controlled clinical trial” OR “Clinical study”))

Arthedata

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ik kan mijn probleem
los!
ik ben
precies goed
zoals ik ben!
ik ben
ik zie het goede
in mensen!
ik vecht op
mijn gevoel!

CHAPTER 3

Measurement and Development of Art Therapeutic Actions in the Treatment of Children and Adolescents with Psychosocial Problems

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Abstract

Background Many childhoods and adolescent psychosocial problems involve dysfunctional emotion regulation. A program has been developed called Affect regulating Arts Therapies (ArAT) to address affect- and emotion regulation problems in children and adolescents. The theoretical concepts and techniques have been described in the ArAT Program, but insight into which specific therapeutic actions contribute to the benefits in clinical practice is still lacking. This study aims to construct a measurement instrument (checklist) to test whether the main therapeutic actions are applied in line with the ArAT Program.

Method To develop the measurement instrument, we performed desk research on existing documents and additional literature. In addition, developers were interviewed, and group meetings took place. Finally, to develop the instrument further and investigate the reliability of the measurement instrument, film clips from therapeutic sessions were used and scored by multiple raters.

Results Typical therapeutic actions were defined from attachment, trauma, affect-regulating, Mentalizing, art therapeutic theories and treatments, and could be divided into the three theoretical phases of the ArAT Program: tension-regulation, attention-regulation, and affect- regulation. A first draft item list of 83 items was based on qualitative analysis. In three phases, the draft item list was reduced to 15 items, of which twelve items met reliability criteria.

Conclusion The therapeutic core of the ArAT Program lies in enhancing the self-regulatory abilities of children/adolescents through art therapeutic actions that target the regulation of tensions, attention, and affects. The set of 15 items is considered a starting point to further investigate the ArAT Program's treatment integrity.

Introduction

Psychosocial problems experienced by children and adolescents refer to difficulties in different areas of personal and social functioning (Timalsina et al., 2018) and cover a wide range of problems. These problems can be classified as emotional (or internalizing), behavioral (or externalizing), and social problems. Emotional problems are, for instance, anxiety, depressive feelings, withdrawn Behavior, and psychosomatic complaints. Behavioral problems include hyperactivity, aggressive Behavior, and conduct problems. Social problems refer to interaction problems with others and maintaining social relationships (Jaspers et al., 2012; Ogundele, 2018; Vogels, 2008). These problems often coincide and negatively influence the everyday functioning of the child/adolescent (Bhosale et al., 2015; Veldman et al., 2015) and, therefore, are often an increased risk of poor school performance (Veldman et al., 2015). Consequently, psychosocial problems may seriously disrupt the usual psychological development of children. Moreover, these problems tend to persist into adulthood (Ogundele, 2018). The worldwide incidence of psychosocial problems in children and adolescents is high (Polanczyk et al., 2015). It varies between 6.7% and 13.4% worldwide (Erskine et al., 2016; Polanczyk et al., 2015) and is a substantial public health problem (Soliman et al., 2020).

Many childhood and adolescent psychosocial problems involve dysfunctional emotion regulation (ER) (Wyman et al., 2010). ER appears to be relevant to developing, maintaining, and treating psychosocial problems (Berking & Wupperman, 2012). ER can be understood as how a child or adolescent sustains, strengthens or impedes his emotions according to his purposes or goals (Williams et al., 2020). Deficits in emotion regulation in the context of psychosocial problems are widely recognized (Kraiss et al., 2020). In a systematic review, Daniel et al. (2020) found evidence that ER functions were promotive and protective for psychological and behavioral outcomes for children and adolescents. The majority of included studies indicated that a well-developed ER is beneficial in various contexts.

Interventions for children and adolescents to reduce emotion regulation problems or prevent psychosocial problems are often used (Wyman et al., 2010). These treatments include, e.g. children and family-focused psychological strategies, like Cognitive Behavioral Therapy (CBT), parenting skills training, and social enhancement techniques (Ogundele, 2018). However, these forms of therapy are often based on cognitive change processes, which can be described as the change of the content and structure of dysfunctional beliefs (Bruijniks et al., 2018), this requires the ability to thinking about your own thoughts. Therefore, CBT may not always be suitable for those children and adolescents which have difficulties with thinking about, formulating and/or expressing their feelings and emotions. Thus, art therapy (AT) can be considered for children and adolescents who have developmental delays.

AT is an experiential form of treatment that provides children a safe space to express their feelings and emotions (Akthar & Lovell, 2018). Working on emotions can be seen as a core activity of AT (Malchiodi, 2020). AT has been used to improve self-esteem and

self-awareness, cultivate emotional resilience, enhance emotion regulation strategies and social skills, and reduce distress (American Art Therapy Association, 2017; Gruber & Oepen, 2018).

Recently, systematic reviews showed that AT had beneficial psychosocial effects for children and adolescents (Bosgraaf et al., 2020; Cohen-Yatziv & Regev, 2019). In these studies, it was shown that the combination of materials, forms of expression applied in therapy by the art therapist was adapted to the individual needs and circumstances of the child, pointing at a high degree of responsiveness during art therapy (Bosgraaf et al., 2020). Responsiveness is a way of interacting such that the client feels understood, valued, and supported in fulfilling critical personal needs and goals. It can be seen as a moment-by-moment process of the therapeutic alliance between therapist and client (Sousa et al., 2011). It is assumed that as part of the therapeutic alliance, the art materials and techniques offer the child and adolescent a 'safe bridge' to bond with the therapist and explore their feelings and emotions. This is considered a starting point to improve emotion regulation and reduce psychosocial problems (Bosgraaf et al., 2020).

Affect regulating Arts Therapies

An art therapeutic program that aims to reduce psychosocial problems in children and adolescents by targeting affect-regulation problems is Affect regulating Arts Therapies (ArAT) (Nieuwenhuis et al., 2020). The ArAT Program is developed on the basis of attachment, trauma, affect-regulating, mentalizing, art therapeutic theories and treatments (Ainsworth et al., 2015; Allen & Fonagy, 2006; Bateman, 2008; Bateman & Fonagy, 2016; Bowlby, 1997; Fonagy et al., 2018; Fonagy & Campbell, 2018; Hill & Schore, 2015; Meurs, 2009; Murray & Rosanbalm, 2017; Siegel, 1999; Smeijsters, 2008; Stern, 2004, 2010; Struik, 2021; Tronick, 1989; Vliegen et al., 2009, 2017).

The program originates from practical insights into art therapy treatments in Child and Youth Mental Health Care and was recently substantiated by theory (Nieuwenhuis et al., 2020). The ArAT Program is characterized by a developmental approach. In such an approach interventions are grounded in a conceptual framework that reflects a developmental framework and the range of developmental phases offer opportunities to intervene (National Research Council and Institute of Medicine, 2009).The ArAT Program focuses on children and adolescents with psychosocial problems, including children with mild to borderline intellectual disabilities (MBID) and Autism Spectrum Disorder.

The ArAT Program has three phases: tension-regulation, attention-regulation, and affect- regulation, and in each phase, three intervention techniques can be recognized. These are the use of art materials and techniques (1), mutual regulation (2), and promoting Mentalizing (3). The art materials and techniques are applied in a flexible, deployable way in which the art therapist adjusts the materials and activities appropriate to the child or adolescent's needs. As a result, the therapeutic process is a continuous interaction between the therapist, child, and material/activity. The therapist continuously attunes to the child with the materials/activities. Within the intervention technique 'mutual regulation', the art therapist influences the interaction between him and the

child by regulating (more or less) the child's tension, attention, and affect. This is similar to the early infant–caretaker relationship, which can be considered a dyadic, mutually regulated communicative system in which there is an exchange of each individual's meanings, intentions, and relational goals – what is called mutual regulation. Mutual regulation enables the art therapist to influence the interaction between the therapist and the child. The art therapist does this by changing posture, facial expression, eye contact, voice, and volume. In this collaboration, interaction arises in a natural pattern, in which the timing is coordinated and is assumed to be experienced as pleasant by both (Beebe & Lachmann, 1998; Fogel, 2011; Tronick, 1989; Tronick & Beeghly, 2011).

By the intervention technique 'promoting mentalization', the child's ability to think about his/her feelings (mentalizing) is gradually promoted (Nieuwenhuis et al., 2020). First, by mentalizing about the child in the tension regulation phase (mentalizing attitude). Then, basic mentalizing with the child (mentalizing-promoting attitude) in the attention and affect regulation phase (see Table 1 for an overview of the global concepts and intervention techniques of the ArAT program).

The treatment goal of the first phase of the ArAT Program is to regulate tension, which is generally known to be an essential prerequisite for therapy. A second goal is to build epistemic trust such that the child is willing to be open to and learn from new experiences (Bo et al., 2017). In the tension regulation phase, the regulation of the child's affects mainly occurs externally by the art therapist. In this phase, the therapist's attitude is empathetic, sensitive, responsive, calm, kind, stronger, and wiser (Hoffman et al., 2017). The art therapist shapes the activities so that the child can be present relaxed and develops the willingness to be open to new experiences with another person. Within the activity offering, the art therapist directs the degree of structure, challenge, duration of the experience, and between working together or alone or task/process oriented. In addition, the art therapist regulates the rising tensions as much as possible for the child and thus offers external regulation. The art therapist does this by having a neutral, predictable attitude, not going along with the child's over- or under-regulation, and remaining calm. Thereby, the art therapist supports, facilitates, and focuses on positive experiences (Nieuwenhuis et al., 2020). In the tension regulation phase, the therapist mentalizes about the child and tries to understand how the child can be more relaxed and open to learning from the art therapist. Eventually, when the child reaches a stable condition, meaning being present, calm, tolerating support, direction, and limitation, and asking for help, a transition can be made to the next phase (Nieuwenhuis et al., 2020). If necessary, therapeutic actions to reduce tension can be repeated in the next phases of the ArAT Program until the child can regulate his/her tension.

During the attention-regulation phase, the therapeutic outcome for the child is to be able to focus on, allow and share sensory experiences (Nieuwenhuis et al., 2020). Sensory experiences are experiences from smelling, hearing, tasting, touching, and seeing. These experiences drive our understanding of the world around us and jour understanding of the mental states of others. To achieve this understanding, children must attend to the sensory experiences and to the sensory experiences of others (Schmidt & Pyers, 2014).

Sharing attention with others develops before language and is associated with a better understanding of others (Mundy & Newell, 2007). In addition, focusing on allowing and sharing sensory experiences is considered a starting point in developing attachment in relationships, e.g. between parents/caregivers and child (Sullivan et al., 2011). In this second phase, it is considered that an explicit focus on sensory experiences and joint attention (sharing a common point of reference) to these experiences will improve causal inferences between sensory perception (seeing, hearing, etc.) and a resulting knowledge state (how we need to interpret what we see, hear, etc. and what others may see, hear, etc.). The stimulation of these so-called sensory systems can directly influence neural systems and emotional development (Sullivan et al., 2011).

In this phase, the child and the art therapist regulate together in shared attention the experiences in therapy. The therapist handles, focuses on, holds, and shares the child's attention (co-regulation). These experiences are gradually extended in duration. The therapist clarifies and names what the child perceives, focusing on the sensory experiences (basic mentalizing). The art therapist supports and encourages the child in exploring the materials and activities. Thereby, the art therapist uses materials/activities that enable the child to focus on the sensory experiences and work together with the art therapist. Reflection on the sensory experiences can be seen as a first step towards becoming aware of affects (Hill & Schore, 2015). For instance, which experiences are felt as pleasant? And which are not? Eventually, when the child can focus and tolerates working together with the therapist, can allow and share sensory experiences, investigate his surroundings and materials, can distinguish between pleasant and not pleasant, and is starting to make his/her own choices, the therapist can decide to start with the next phase (Nieuwenhuis et al., 2020).

In the affect regulation phase, the purpose of the ArAT program is to encourage the child or adolescent to articulate affects, thoughts, and needs (basic mentalizing). The art therapist engages in activities that encourage the child to recognize, discern and express affects. In this phase, the therapist increasingly addresses the child's 'self'. The initiative, space, and own input are stimulated, challenged, and facilitated. In addition, the therapist encourages the child to notice differences and similarities and position himself in dialogue and interaction with the therapist. Also, the therapist directs the child's attention to mutual affects and intentions. On the one hand, by stimulating the child to express affects and assign meaning, on the other hand by thinking about the affects and intentions of others. With this, the therapist shows a not-knowing attitude.

The therapy can be completed if the child has the ability to tell what is on his/her mind, is able to distinguish, share and exchange feelings, and has become aware of other people's feelings. Achieving these goals can be understood as a start to develop self-regulatory skills. Further treatment can be necessary. In consultation with parents and carers and possibly other involved professionals, it is discussed whether follow-up treatment, for instance trauma processing, is indicated (Nieuwenhuis et al., 2020).
Parents, carers, and teachers play an essential role in the ArAT program. They are included to promote the transfer to the home and school situation. In the ArAT program, there are

five consults between the art therapist and the parents/carers, and the teacher planned. Before, during the three phases, and upon completion of therapy. The therapist provides psychoeducation about developing affect regulation skills and the child's developmental needs in these consults. In addition, the therapist stimulates the mentalizing attitude of those involved by mentalizing about the child in these consults. If considered necessary, parents/carers are invited to attend one or more sessions to gain more insight into the developmental-oriented approach of ArAT applied by the art therapist to the child.

The broad theoretical concepts and techniques have been described in the ArAT program, and in clinical practice, benefits are seen (Nieuwenhuis et al., 2020). Nevertheless, knowledge about treatment integrity – are the therapeutic actions applied as intended – and which specific therapeutic actions may contribute to the benefits in clinical practice is important for the transferability to art therapists in practice. Also, these insights are important for future process evaluation of newly developed programs like ArAT. Therapeutic actions are defined as actions performed by art therapists to lead the children towards the desired outcome (Otero et al., 2010). Therefore, to be able to identify significant actions during ArAT sessions that support positive outcomes will improve the interpretation and understanding of outcomes in treatments and effect studies, provide clues on which elements to use in clinical practice, and will give a sound base for initiating more empirical research on AT (Fixsen et al., 2009).

In this paper, we describe the development and evaluation of an instrument to measure the most relevant therapeutic actions of the ArAT Program. Such an instrument must be able to measure validly and reliably the predefined therapeutic actions of the ArAT program. To address the validity of the measurement instrument, we first discuss which characteristic therapeutic actions must be performed and observed according to the theory during the ArAT program. After defining these therapeutic actions, a study is conducted to investigate the reliability of observing these therapeutic actions. The study aimed to develop a short, understandable, and manageable measurement instrument (checklist) containing therapeutic actions that could be observed reliably.

Table 1
Arat Theoretical Main Concepts, Intervention Techniques, and Aims

Intervention Techniques Fase	Deployment of Art Means	Interactive Regulation	Mentalization
Tension Regulation	Reducing tension by using characteristics of the art material: structure, challenge, duration, alone/together, task-oriented/ process-oriented.	Regulating rising tensions through external regulation by the art therapist.	The art therapist mentalizes about the child and tries to understand how the child can be open to new experiences.
Attention Regulation	Challenging the child having physically-sensory experiences and working together by adding the following experiences of the art material: physical sensory characteristics and stimulating own preferences.	Joint regulation of attention and experiences through co-regulation.	The art therapist identifies what actually happens in order to let the child become aware of experiences and, clarifies them.
Affect Regulation	Stimulating discerning and expressing non-verbal feelings and stimulating initiative by the adding the following experiences: making distinctions and stimulating the giving of meaning.	Inviting and helping the child to regulate his feelings, behavior and thoughts (on the way to self-regulation).	The art therapist questions the child on affects and intentions. The therapist mentalizes with the child.

Method

To develop a measurement instrument, we generated a large item pool first and refined this item pool with three of the five developers of the ArAT program, all experienced art therapists working in clinical practice. Next, the reliability of the items was investigated.

Generation of an Item Pool

First, a semi-structured interview was held with two developers to clarify the program's development history and obtain an overview of the documents and literature used to build the program. Then, all documents and literature were collected, and an overview of theoretical concepts and associated therapeutic actions (N = 83) was extracted by applying content analysis. During this process, single therapeutic actions could be identified (e.g. 'the therapist encourages self-initiative') as well as therapeutic actions that involve more than one element (e.g. 'the therapist responds calmly, kindly, and empathically and takes charge of the form of the therapy situation but follows the child in content and profoundness of the therapy').

Second, a group meeting was held with three developers to discuss and improve the extensive list of therapeutic actions according to COSMIN criteria for content validity, i.e. relevance, comprehensiveness, and comprehensibility of the items (Mokkink et al., 2019). All items (actions) were evaluated separately, duplicates were removed, and the remaining items were assigned to one of the three ArAT phases. This meeting resulted in a list of thirteen combined and seven single therapeutic actions.

Third, in three rounds by email, the list was further refined concerning the wording of the therapeutic actions to further enhance comprehensibility. The theoretical concepts were made more comprehensible for practice. The resulting list of actions was processed into a first draft item pool of 13 items, and 38 extracted single items and 7 original single items, making a total of 58 items (see Table 2: first draft item pool).

Table 2
First Draft Item Pool

	Therapeutic actions		
	Multifaceted items[1]		**Single Items**[2]
Phase	**Tension regulation**		
1.	The therapist responds calmly, kindly, and empathically and takes charge of the therapy situation, but follows the child in content and profoundness of the therapy.	**A1.** **B1.** **C1.** **D1.** **E1.** **F1.**	The therapist follows the child in the profoundness of the therapy. The therapist follows the child in the content of the therapy. The therapist takes charge of the form of the therapy situation. The therapist responds empathetically to the child. The therapist responds kindly to the child. The therapist responds calmly to the child.
2.	The therapist responds to the child's problem behavior by making the behavior functional in dealing with the material and activity.		-
3.	The therapist "mirrors."[3] and "marks"[4] the behavior of the child.	**A3.** **B3.**	The therapist mirrors the child's behavior. The therapist marks the child's behavior.
4.	The therapist matches their attitude or range of materials/ activities with the behavior/ activities of the client and adds something unique.	**a4** **B4.** **C4.**	The therapist responds to the child by adding something unique to the situation. The therapist matches the supply of materials /activity with the behavior/activity of the client. The therapist matches their attitude to the client's behavior.
5.	The therapist uses "familiar" (to the client) materials/activities and responds with stress-reducing conversations.	**A5.** **B5.**	The therapist responds to the child with tension-reducing conversations while working with materials/activities. The therapist uses "familiar" (to the client) materials/ activities for the child.
6.	The therapist directs between structure/ challenges with the materials/activities so that the child is present in a relaxed manner.	**A6.** **B6.**	The therapist arranges challenges with the material/ activities so that the child is present in a relaxed manner. The therapist arranges structure with the material/ activities so that the child is present in a relaxed manner.
Phase	**Attention regulation**		
7.	The therapist is curious, clarifies, and askes concrete questions about the experiences with the materials/activities.	**A7.** **B7.** **C7.**	The therapist asks clarifying questions about the experiences with the material/activity. The therapist asks curious questions about the experiences with the material/activity. The therapist asks concrete questions about the experiences with the material/activities.

1 therapeutic actions that involve more than one element

2 multifaceted item is broken down into multiple items (A, B, C, etc.)

3 doing the same in rhythm, pace, duration, and intensity.

4 focused on

Table 2
Continued.

	Therapeutic actions	
	Multifaceted items[3]	**Single Items**[4]
8.	The therapist identifies and appoints the concrete behavior of the child.	-
9.	The therapist interacts and works together with the client.	-
10.	The therapist "mirrors" the client's behavior.	-
11.	The therapist responds with involvement sounds and allows silences to last longer with increased involvement.	**A11.** The therapist allows silences to last longer as the involvement between the child and the therapist increases. **B11.** The therapist responds to the child's activity with sounds of involvement.
12.	The therapist stages physical and sensory experiences with materials or within an activity to stimulate the discrimination between "nice" and not "nice."	**A12.** The therapist stages physical and sensory experiences with materials or within an activity to stimulate the distinction between "nice" and "not nice."
Phase	**Affect regulation**	
13.	The therapist stimulates the child's own design and initiatives.	**A13.** The therapist stimulates the child's design with the materials. **B13.** The therapist encourages the child's initiatives within the materials and activities.
14.	The therapist identifies and asks clarifying questions about differences and similarities between the child and the therapist.	**A14.** The therapist asks clarifying questions about similarities and differences between the child and the therapist. **B14.** The therapist identifies similarities between the child and the therapist. **C14.** The therapist identifies differences between the child and the therapist.
15.	The therapist asks clarifying questions about experiences and identifies changes in these.	**A15.** The therapist identifies changes in the child's experiences. **B15.** The therapist asks clarifying questions about experiences.
16.	The therapist encourages alternate work and comes to interactive dialogue.	**A16.** The therapist stimulates interactive dialogue during working with materials. **B16.** The therapist encourages alternate work.

5 therapeutic actions that involve more than one element

6 multifaceted item is broken down into multiple items (A, B, C, etc.)

Table 2
Continued.

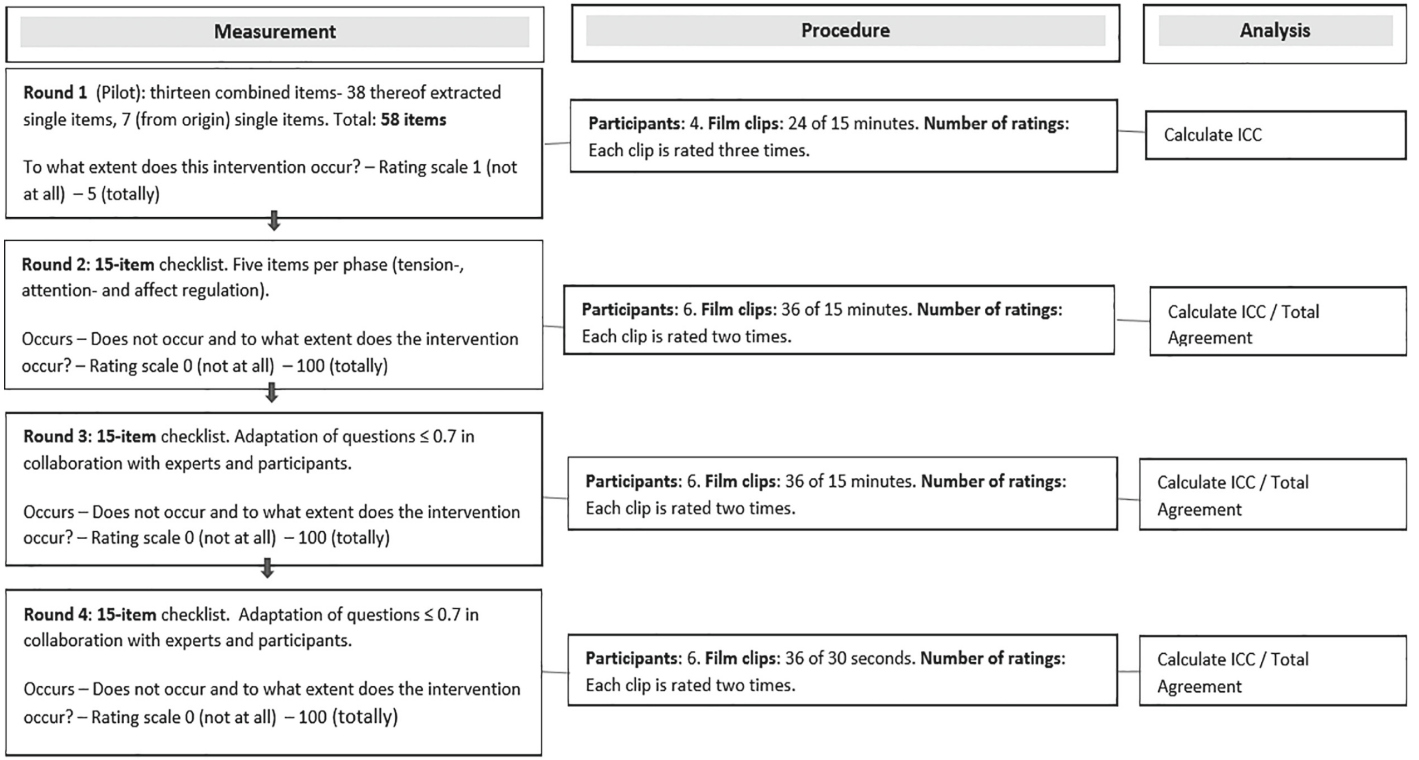
	Therapeutic actions	
	Multifaceted items[3]	**Single Items**[4]
17.	The therapist marks changes and differences between the child and the therapist in pace/ rhythm/ duration and intensity.	**A17.** The therapist marks differences in intensity between the child and the therapist. **B17.** The therapist marks differences in duration between the child and the therapist. **C17.** The therapist marks differences in rhythm between the child and the therapist. **D17.** The therapist marks differences in pace between the child and the therapist. **E17.** The therapist marks changes in intensity between the child and the therapist. **F17.** The therapist marks changes in duration between the child and the therapist. **G17.** The therapist marks changes in rhythm between the child and the therapist. **H17.** The therapist marks changes in pace between the child and the therapist.
18.	The therapist encourages meaningful work.	-
19.	The therapist encourages self-initiative	-
20.	The therapist encourages personal design.	-

Design of the Reliability Study

Different versions of the measurement instrument were evaluated for their reliability in four rounds, in which raters needed to score film clips from video recordings of therapeutic sessions. A cyclical process was used, whereby the first round was approached as a pilot (see Figure 1). The film recordings of sessions were collected from 12 ArAT trained art therapists treating children and adolescents with psychosocial problems applying the ArAT. From the recordings, film clips were made independent of the phase of therapy. The length of the film clips varied throughout the study and was at least 30 seconds .

Figure 1

Flowchart Methodological Steps Assessing Inter-Rater Reliability



Participants

Participants were 22 graduate art therapy students (total) of NHL Stenden University, Leeuwarden, The Netherlands. The graduate students were intensively trained in the ArAT theories and applying the measurement instrument. In addition, students rated the selected training film clips during two training sessions, and questions and ambiguities were discussed, and information was given in line with the ArAT theories. At least four students participated per round.

Procedure

In the first round (pilot) of the reliability study, four participants (raters) independently watched a total of 16 film clips of 15 minutes each. Each clip was rated three times by different participants using the draft list of 58 items. First, the participants had to decide whether the item (therapeutic action) was present or absent in the film clip for each item. If the item (therapeutic action) was rated as present, an additional question was asked: "To what extent does this therapeutic action occur?" The participant could score the extent on a rating scale 0 (not at all) – 100 (totally). The purpose was to get insight into relevance, comprehensiveness and comprehensibility, and measurability of items so that the item list could be shortened and simplified in collaboration with the experts and participants for the next round. In revising the items, we wanted to have at least five items per phase, the wording of each item as close as possible in line with the ArAT theoretical framework, and each item containing a single therapeutic action. With this, relevance to practice, comprehensiveness, and comprehensibility was considered (Mokkink et al., 2019).

In the next three rounds (2–4), six participants watched 12 film clips of 15 min each. Two raters at least rated each clip. The questions asked were: "Does this therapeutic action occur?" An additional question was asked if the therapeutic action occurred: "To what extent does this therapeutic action occur?" A rating scale 0 (not at all) – 100 (totally) was used in these rounds. From rounds 2–4, improvements were made on the items with an insufficient inter-rater agreement (< .70). In revising items, data, theory, and participant opinion were considered. Developers of the ArAT were not involved in these rounds anymore since this could introduce bias. In revising the items, the wording of each item was aimed at staying as close as possible in line with the ArAT theoretical framework, and each item needed to contain a single therapeutic action. Also, the relevance of the item to practice, the comprehensiveness, and the comprehensibility was taken into account (Mokkink et al., 2019).

In all rounds, to prevent participants getting used to the order of questions, a minimum of three versions regarding the order of questions was used. Also, each item (therapeutic action) had an explanation in a subtitle, which explained the item (therapeutic action) further. Digital means were used to collect the data (Qualtrics, 2020). The checklist was sent by email and filled in by smartphone in one room. Thereby the participants were separated to not disturb or influence each other. During rating, the participants could stop or watch the film clip again. There was no time limit set for the

rating. Three sessions with a maximum of four film clips per session were scheduled to prevent fatigue.

Ethics

A statement of (informed) consent regarding the making and using the film clips was requested from the institutions, therapists, clients, and parents involved. The signed informed consent was kept with the therapist or institution. Client's and parent's personal data are unknown to the researcher(s). The video material of the therapeutic session was sent to the researcher via a secure connection (Filesender), with a separate key. The film clips were viewed securely and not shared with raters. Film clips are securely stored on a server of NHLStenden University, Leeuwarden and has been assessed as not subject to WMO by the CCMO of the Leeuwarden Medical Center in the Netherlands (nr. RTPO 1032a).

Analysis

Data were analyzed using SPSS version 27. The Intraclass Correlation Coefficient (ICC), model One- way Random, type consistency was computed for round one. For rounds 2–4, we also computed the proportion Total Agreement between the dichotomous variable present or absent (see Figure 1). Although it is well-known that proportion agreement indices can be artificially high due to chance agreements (Bartko & Carpenter, 1976), this index was used to control for restriction of range. According to Koo and Li (2016) a low ICC does not necessarily mean a low agreement. A low agreement can also be caused by a lack of variability, a small number of film clips, or a small number of raters. As a decision rule, the inter-rater agreement scores on the ICC were considered sufficient if ≥0.70 (Shrout & Fleiss, 1979) or absolute Total Agreement score was ≥ 70%. In the final analysis of round 4, to rule out that the low scores were due to poor quality videos, only film clips were included in which therapeutic actions were observable/not observable, according to the first author. To measure agreement between participants and the first author, we measured Conditional Chance (%) (the chance that a random rater agrees with the 'golden standard') (Dekking et al., 2005).

Results

All 58-item list items evaluated in the pilot round had ICCs ≤ 0.6, with the majority ≤ 0.4 (see Table 3). All items with ICCs below 0.4 were omitted from the instrument. Items between 0.4 and 0.6 were revised. Adjustments: All multifaceted items were removed or adjusted to a single item. The items were modified to be easier to comprehend by the raters. Therefore, concepts considered challenging to interpret were replaced by more accessible concepts, for instance, mirroring by imitation. This resulted in five items per phase, taking into account the comprehensiveness and relevance concerning the phase.

In round two, all 15 items had ICCs ≤ 0.7: eight items (Q2, Q3, Q4, Q6, Q7, Q9, Q10, Q11, Q12) ≤ 0.4, five items between 0.4 and 0.5 (Q5, Q8, Q13, Q14, Q15) and one item 0.68 (Q1). The results for Total Agreement (%) showed for ten items (Q1, Q2, Q3, Q4, Q5, Q7, Q8, Q9, Q10) ≥ 70%. The remaining items had percentages Total Agreement between 40% and 70%. Based on these results, adjustments were made based on the theoretical framework and collaboration with the participants on further clarifying the items, mainly through small changes in the item's main text, especially in the explanatory text.

In round three, all items had ICCs between 0.0 and 0.3. Total agreement (%) showed on seven items (Q1, Q2, Q3, Q4, Q5, Q9, Q15) ≥ 70% agreement. Six items varied between 60% and 70% agreement, one item (Q14) showed 0.58, and one item showed 0.42 (Q13). Adjustments: minor adjustments in the main text were implemented in collaboration with the participants, and the explanatory text of the question was further clarified.

In round four, all items showed ICCs ≤ 0.7. One item (Q4) was 0.69; five items were between 0.4 and 0.5 (Q2, Q8, Q12, Q13, Q14), five items between 0.3 and 0.4 (Q5, Q7, Q9, Q11, Q5), two items (Q1, Q10) scored <0.3. Two items scored even negative (Q3, Q6). Total Agreement numbers showed on 12 items (Q1, Q2, Q3, Q4, Q5, Q7, Q8, Q9, Q12, Q13, Q14, Q15) ≥ 70%. The remaining items (Q6, Q10, Q11) showed numbers between 40% and 70%.

In the end, to check if low agreement could be caused by poor quality videos, the first author selected film clips in which therapeutic actions were clearly present or not. Then, to measure agreement, we computed the Conditional Chance (%). The scores showed on 11 items (Q1, Q2, Q3, Q4, Q5, Q7, Q8, Q9, Q10, Q11, Q15) ≥ 0.70 agreement, three items (Q12, Q13, Q14) scored between 0.60 and 0.70 agreement and one item scored 0.56 agreement (Q6).

Table 3

Results Icc/Ta Round 1-4

Round	1		2		3		4	
Item	ICC	Item	ICC	TA%	ICC	TA%	ICC	TA%
Q a1	0,12	Q1	.678	0,92	.006	0,70	.19	70,6
Q b2	0,25	Q2	.182	0,97	.082	0,97	.53	83,3
Q c1	0,60	Q3	.123	0,89	.093	0,91	.008	88,2
Q d1	-0,09	Q4	.247	0,78	.052	0,85	.66	86,1
Q e1	-3,57	Q5	.465	0,81	.119	0,82	.192	83,4
Q f1	0,07	Q6	.059	0,64	.007	0,61	.05	47,2
Q 1	0,15	Q7	.302	0,75	-.102	0,64	.36	91,7
Q 2	-0,01	Q8	.464	0,72	.156	0,61	.36	72,2
Q a3	0,16	Q9	.350	0,92	-.146	0,91	.30	72,2
Q b3	0,38	Q10	.176	0,75	.129	0,61	.20	58,8
Q3	0,28	Q11	.109	0,64	.371	0,64	.28	67,6
Q a4	0,11	Q12	.053	0,47	.281	0,64	.44	82,4
Q b4	0,36	Q13	.477	0,78	-.002	0,42	.30	83,3
Q c4	0,00	Q14	.499	0,56	.068	0,58	.51	72,2
Q 4	0,10	Q15	.464	0,67	.009	0,79	.16	73,5
Q a5	0,35							
Q b5	0,46							
Q 5	0,36							
Q a6	0,21							
Q b6	-0,00							
Q 6	0,31							
Q a7	0,35							
Q b7	0,48							
Q c7	0,36							
Q 7	0,32							
Q 8	0,26							
Q 9	0,64							
Q 10	0,33							
Q a11	0,03							
Q b11	0,30							
Q 11	0,02							
Q a12	0,33							
Q 12	0,07							
Q a13	0,21							
Q b13	0,44							
Q 13	0,32							
Q a14	0,04							
Q b14	0,22							
Q c14	0,21							
Q 14	0,03							
Q a15	0,24							
Q b15	0,39							
Q15	0,47							
Q a16	0,16							
Q b16	0,54							
Q 16	0,52							
Q a17	0,27							
Q b17	0,15							
Q c17	0,06							
Q d17	0,07							
Q e17	0,04							
Q f17	-0,05							
Q g17	-0,03							
Q h17	0,07							
Q 17	0,15							
Q 18	0,29							
Q 19	0,39							
Q 20	0,48							

Discussion

In this study, we tried to derive observable therapeutic actions from the theoretical concepts of the ArAT program. A first draft item list was developed, including 13 multifaceted therapeutic actions, 38 single therapeutic actions, and seven single therapeutic actions (from origin). Using desk research and interviews. Next, this item list was further refined in three rounds using reliability analyses and recommendations of raters. This resulted in a 15-item list (see Appendix A: final checklist), of which twelve items met sufficient total agreement between raters.

This process of defining and observing therapeutic actions raised several challenges and problems. First, the ArAT therapeutic actions, based on attachment, trauma, affect-regulating, mentalizing, art therapeutic theories, and treatments, often concern non-verbal and implicit actions. In addition, these actions are often complex and multifaceted, which take place in a complicated coherence and in constant interaction with the child/adolescent (Tronick, 1989). Therefore, constructing an item list of therapeutic actions necessitates a stepwise methodology, in which therapeutic actions are defined based on theoretical concepts and experiences while observing therapeutic actions. For this reason, it was decided to perform a pilot round followed by several rounds in which therapeutic actions were observed. During the pilot round, therapeutic actions were formulated based on existing documents on the treatment program, literature, and discussions with the developers. During the next rounds, the therapeutic actions were refined based on the raters' experiences and reliability scores.

During this stepwise methodology, we used criteria to promote content validity in developing measurements instruments, i.e. items need to be relevant, comprehensive, and comprehensible (Mokkink et al., 2019) so that the overall list is short and simple. To construct a relevant items list, the original item list was designed from the theoretical framework established by the developers of ArAT. Staying close to the original theoretical framework remained a point of attention in all rounds. During the pilot round, the developers were involved in determining the 15-item list. In the following rounds, the theoretical concepts were introduced in the discussions with the raters and the training. In the final checklist, the three phases could still be recognized for the remaining items, although a sharp phasing was difficult.

The overall measurability of the item list was also taken into account after the pilot round. The list turned out to be too long, which caused fatigue, which may explain lower reliability scores. Therefore, it was chosen to shorten the list to five items for each phase, consisting of 15 items in total.

In the last round, it was decided to switch from 15-minutes clips to 30-seconds film clips for two reasons. The first reason was that the participants evaluated the 15 min clips too long because it caused fatigue. The second reason was that we decided to select 'typical' short clips that involved, according to the first author, clear therapist actions. A disadvantage of the shorter clips could be that the context of the session is missed. This was not confirmed by the participants after training with shorter clips, the

participants indicated that the therapeutic actions and their context were observable in 30-seconds film clips.

To construct a comprehensive and comprehensible item list, we discussed in rounds 2–4 the assessment experiences with the raters and during the training sessions with the new raters. During these discussions, we saw that items lacked focus related to the specific purpose of the ArAT program phase. It appeared that raters focused too much on what the therapist was doing specifically, but not in combination with the underlying purpose of the action, i.e. the purpose of the phase, for example, to keep tension low. For example, 'The therapist offers proximity, helps, and supports the child'. This action can theoretically occur in all three phases but with a different purpose. In this case, the action belongs to the tension regulation phase to keep the child from becoming tense and frustrated to feel safe. Therefore, items were more goal-oriented and focused on how theory could be perceived in practice. Also, we added explanatory text to the items and adjusted the content of the raters' training sessions with regard to previous experiences.

Besides a valid item list, we aimed to construct items of therapeutic actions that are reliable. We saw that therapeutic actions and the degree of presence were difficult to observe reliably during the four rounds. During discussions with the raters, they confirmed that some therapeutic actions were hard to identify, open to different interpretations, and implicit of nature. Therapist Behavior appears to be objectifiable but is sensitive to confirmation bias, which tends to process information by looking for, or interpreting, information that consists of one's experiences and beliefs (Casad, 2019). We saw that it remained difficult for the raters to let go of their own interpretation of reality. This is also known as predictive coding. Predictive coding theory states that our brain obtains information from our senses, whereby the brain constantly makes predictions and expectations about what we perceive. These predictions form our internal model of reality based on our observations (Kaaronen, 2018). Therefore, it was ultimately chosen for a checklist. In this checklist, the presence of the therapeutic behavior can be scored as being present or not. Also, the clarifying text remained frequently revised based on the raters' feedback.

Strengths and Limitations

In this study, our main topic of interest was the practice of art therapy. This so-called practice-led research is concerned with the nature of practice and can lead to new knowledge that has operational significance for that practice. The main focus of practice lead research is to advance knowledge about practice or knowledge within the practice (Candy, 2006). A tension between practical relevance and methodical thoroughness of practice-led research seems inescapable. Often when thoroughness increases, practical relevance decreases (Andriessen, 2014). Total Agreement numbers were sufficient for 12 items in the last round, while sufficient ICCs could not be achieved. This can raise questions.

As a result of converting the theoretical concepts into observable and recognizable therapeutic actions, the core of the theoretical concept may have been missed. For example, with the concept of 'mirroring' which was described by practice and the participants as imitation. This while mirroring is essentially different from imitation (Carr & Winkielman, 2014).

Within the ArAT program the role of the parents/carers in the treatment is considered essential and they are closely involved in treatment (Nieuwenhuis et al., 2020). Therapeutic actions concerning the parents/carers are not included in this study. It is recommended to include the perspective of the parents/cares in future research.

Knowledge development can be seen as a process that must balance between practice and science. Practice-lead research is in a constant dilemma with doing justice to the specificity of the practical situation but also must be generally valid (Andriessen, 2014). In this study, the first steps are taken to a (satisfactory) solution to this dilemma.

Implications for Policy, Practice, and Research

It is recommended that further research is conducted into the reliability of therapeutic actions. Collaboration with practice is of great importance in formulating the items. Therefore, it is advised to convert theoretical concepts into recognizable and measurable therapeutic actions, as art therapists perform these. At the same time, the challenge arises to stay close to the core of the theoretical concept. In addition, it remains important to train the participants intensively in perceiving and recognizing the items of the checklist.

Further research to ensure content validity is also recommended. In particular, investigate whether the therapeutic actions of a specific treatment phase are mainly performed in that phase. A mixed-method approach through film clips from practice and interviews with involved therapists could provide more clarity about this. Further research could bring therapeutic actions and the phasing to light and make them recognizable for art therapists, giving them more control over their therapeutic actions. It is known that to implement an intervention in practice, adjustments and re-evaluation is required (Movsisyan et al., 2019). Also, before use, training using the checklist is highly recommended.

Conclusions

The specificity of the ArAT program lies in enhancing the self-regulatory abilities of children and adolescents through art therapeutic actions that target the regulation of tensions, attention, and (in total) affects. The constructed items list is the first step in defining art therapeutic actions and setting the reliability to observe these therapeutic actions. The defined theoretical attachment-related items, although difficult, can only be partially reliably observed with this study design. More research is needed on measuring reliability of (art) therapeutic actions. Also, of interest is, whether a phasing (as suggested

in the ArAT program) is observable in developmental oriented art therapeutic treatments for children/adolescents with psychosocial problems.

APPENDIX

Chapter 3: Measurement and Development of Art Therapeutic Actions

Appendix A
Final checklist

1. The therapist offers the child accessible materials and activities.

The therapist uses accessible materials and activities, which are known to the child and cause little tension/frustration.

2. The therapist offers proximity, facilitates, helps and supports the child.

The therapist takes actions and is present, in such a way that the child does not become frustrated and tensed.

3. The therapist takes charge of the form of the therapy situation.

The therapist leads the therapy in a calm calm, friendly and empathetic way, where it is clear that the therapist is in control.

4. The therapist imitates the actions or behavior of the child.

The therapist follows and mirrors the child in movement and behavior: the therapist mimics the actions and behavior.

5. The therapist emphasizes what is visible.

The therapist appoints or focuses non-verbally on what he/she sees. This can be either with the child/himself or something in space, with the intention of focusing attention.

6. The therapist emphasizes experiences.

This is a conscious act of the therapist to emphasize experiences and thus focus attention on them.

7. The therapist works with the child.

The therapist is involved in the activity and the child and is not, for example, writing the report, or cleaning up the cupboard

8. The therapist stimulates the creativity of the child.

The therapist stimulates the child's own choices and design. This can be done verbally by encouraging and non-verbally by, j example, shifting material. This with the intention of stimulating and exploring individuality.

9. The therapist responds with sounds of engagement.

The therapist responds with oh/aah/oe to share experiences to the activities that the child develops. These can also be senten that are pronounced as an experience: e.g. so that is beautiful! or yeah!, done! The sounds aren't meant to get a response, bu they're allowed.

10. The therapist emphasizes change in experiences.

The therapist appoints or focuses non-verbally on what he sees in change in experience, with the intention of focusing on changes in experiences. E.g. between fine or not fine. This can be done with the child or the therapist him/herself.

11. The therapist emphasizes the intensity of feelings.

This is a conscious act of the therapist to emphasize the impact (intensity/ or lack thereness) and thus focus attention on this.

12. The therapist stimulates symbolic work.

This is a conscious act of the therapist to give meaning to the work and thus to initiate insight/thinking.

13. The therapist stimulates to take turns working.

The therapist stimulates within activities in which is worked together, that they can take turns and therfore encourages the cl to distinguish between you and me.

14. The therapist asks questions about experiences and feelings.

This involves consciously asking the therapist about how something goes or feels in order to raise awareness of feelings/experiences.

15. The therapist encourages the child's own initiative and exploration.

This concerns the conscious act of the therapist that the child is given the space to explore.

CHAPTER 4

Developmental Art Therapeutic Program (ArAT) in the Treatment of Children and Adolescents with Psychosocial Problems

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Abstract

Background The program Affect regulating Art(s) Therapy(ies) (ArAT) has been developed to address affect and emotion regulation problems in children and adolescents with psychosocial problems. Therapeutic actions are considered to be chronologically applied in three treatment phases: a tension regulation phase, an attention-regulation phase, and an affect regulation phase. In this study, we explored whether the theoretical description of the phases of the ArAT program is observable as such in practice.

Method We collected film recordings of ArAT sessions. These recordings were viewed and rated using a checklist to explore whether the therapeutic actions were present.

Results No differences in therapeutic actions between the treatment phases could be detected. Therapists frequently use therapeutic actions from the tension-regulation and attention-regulation phase during all phases of treatment. Furthermore, in each single treatment phase, the same order in the frequency of applied therapeutic actions was found: tension-regulation actions were most frequently applied, then attention improving actions and affect-regulating actions the least.

Conclusion The supposed phasing of the development oriented ArAT program could not be detected in this research. To a limited extent, the therapeutic actions to think and talk about feelings are used. Reducing stress seems to remain important during all phases of treatment.

Introduction

Art therapy (AT) is an established form of psychotherapy delivered by trained art therapists, in which art materials are applied in a therapeutic process. A broad range of art materials and techniques are used, such as paint, clay, collage techniques and, even digital media such as photography and tablet technology (Malchiodi, 2012a).

Recently, it was shown that AT has beneficial effects on children and adolescents with psychosocial problems (Cohen-Yatziv & Regev, 2019; Bosgraaf et al., 2020). Bosgraaf et al. (2020) found that the combination of art materials and forms of expression applied in therapy by the art therapist was adapted to the individual needs and circumstances of the child. These findings point to a high degree of responsiveness during art therapy (Bosgraaf et al., 2020). Responsiveness is a way of interacting in which the art therapist observes the client and attunes to (non-)verbal behavior of the client. This may stimulate the client feels understood, valued, and supported in fulfilling critical personal needs and goals. It can be seen as a moment-by-moment process of the therapeutic alliance between therapist and client (Sousa et al., 2011). It is assumed that as part of the therapeutic alliance, the art materials and techniques offer a child or adolescent a 'safe bridge' to bond with the therapist. This offers opportunities to explore feelings and emotions, improve (emotion) regulation skills and reduce psychosocial problems (Bosgraaf et al., 2020).

In the past decade, a group of Dutch art therapists developed an art therapy program based on their positive experiences with what they were doing in clinical practice in treating children and adolescents with psychosocial problems (Nieuwenhuis et al., 2020). This led to Affect regulating Arts Therapies (ArAT). ArAT is a developmental art therapeutic program based on attachment-, trauma-, affect-regulating-, mentalizing-, art therapeutic theories and treatments. Emotion regulation can be seen as how a child or adolescent sustains, strengthens, or impedes his emotions according to his purposes or goals (Williams et al., 2020) and is also known as emotional self-regulation (Sanduvete-Chaves et al., 2022). Emotional self-regulation problems seem to be an important factor in developing, maintaining, and treating psychosocial problems (Berking & Wupperman, 2012). Thereby, deficits in emotional self-regulation in the context of psychosocial problems are widely recognized (Kraiss et al., 2020).

The ArAT program is described in three phases: tension-regulation (phase 1), attention- regulation (phase 2), and so-called affect-regulation (phase 3), whereby affect is defined as physical sensations, feelings, and needs, and affect regulation as the regulation of these feelings and needs (Schmeets & Verheugt-Pleiter, 2005). The three phases are assumed to be indicative: the transition to the next phase can be made if the goal of the previous phase has been achieved, although tension-regulating actions may be repeated if necessary (Nieuwenhuis et al., 2020). In this study, we explored whether the theoretical description of the phases of the ArAT program is observable as such in practice.

The First Phase: Tension Regulation

The overall treatment goal of the first phase of the ArAT program is to regulate tensions adequately and build epistemic trust so that the child is willing to be open to and learn from new experiences. Epistemic trust is an individual's willingness to consider new knowledge trustworthy and relevant and, therefore, worth integrating into their lives (Schröder-Pfeifer, 2018). It is achieved by collectively gaining positive experiences in a pleasant, playful interaction with the other (Fonagy & Allison, 2014) in which the child can feel safe and relaxed.

From previous research (Bosgraaf et al., 2022), the tension regulation phase can be characterized by five therapeutic actions. In this phase, the therapist provides the child with accessible art materials and activities that are familiar to the child and therefore cause little tension and frustration. The therapist's attitude is supportive, so the child does not become frustrated or tense. Also, the therapist leads the therapy so that it is clear to the child that the therapist is in control. Thereby, the therapist follows and mirrors the child's movement and behavior so that the child feels seen. Also, the therapist appoints or focuses non-verbally on what is seen, intending to enhance focus. Finally, the therapist can move on to the next phase if the child can be present in a relaxed manner, can accept support, tolerates guidance and boundaries, and asks for help when experiencing increasing tensions (Nieuwenhuis et al., 2020).

In the ArAT program, the tension regulation phase can be seen as a basis for working on the treatment goals in the next two phases. If tensions rise again in later phases, it is advised to use therapeutic actions from the first phase (Nieuwenhuis et al., 2020).

The Second Phase: Attention Regulation

The second phase of the program is called attention regulation. The main therapeutic outcome for the child is to be able to focus on, allow and share sensory experiences (Nieuwenhuis et al., 2020). The attention-regulation phase is also described by five therapeutic actions. First, the therapist focuses on and emphasizes (verbally and non-verbally) the experiences of the child and him/herself. Also, in this phase, the therapist is involved in the activity (to a greater or lesser extent) in such a way that one can speak of cooperation. Third, during this working together, the therapist stimulates (verbally or non-verbally) the child's choices to stimulate and explore individuality. Also, the therapist responds with sounds of engagement, such as oeh! aah! or responses in sentences such as that is beautiful! or that did not work. As the fifth therapeutic action in this phase, the therapist focuses on changes in experiences with the child or him/herself. For instance: last time you did not touch the clay, now you are.

In the ArAT program, the last phase (affect regulation) can start when the child focuses and tolerates working with the therapist. Thereby, the child allows and shares sensory experiences, explores his environment and art materials, distinguishes between pleasant and not pleasant, and starts to make his/her own choices (Nieuwenhuis et al., 2020).

The Third Phase: Affect regulation

Finally, in the so-called affect regulation phase, the purpose of the ArAT program is to learn the child or adolescent to articulate his affects, thoughts, and needs (Nieuwenhuis et al., 2020). Again, five therapeutic actions characterize this phase. In the affect regulation phase, the therapist emphasizes the impact (intensity or lack thereof) of feelings of the child or oneself to focus on feelings and the variation within. The therapist encourages the child to give meaning to the work and art product to initiate insight/thinking. While working with the child, the therapist encourages the child to take turns to distinguish between "you and me". Also, the therapist asks about how things work or feel to raise awareness of the feelings and experiences of the child. Finally, during the process of creating, the therapist encourages the child to explore and be creative.

In the ArAT program, the therapy is completed whenever the child can tell what is on his/her mind, distinguish, share, and exchange feelings, and becomes aware of other people's feelings. As a result, a start is made in the development of self-regulatory capacities, and the psychosocial problems may decrease. However, Further treatment may be necessary (Nieuwenhuis et al., 2020).

Phasing

The prescribed order of the three treatment phases in the ArAT program is in line with several theories and insights from developmental treatments. For instance, Fonagy & Target (2002) also described the emotional-regulatory development that enables a child to function socially and relationally in three phases: the regulation of stress, the regulation of attention, and the ability to interpret mental states. A similar phasing was described by Vliegen et al. (2009). Hill (2015) identifies a sequential process of arousal regulation, affect differentiation, and regulation of categorical affects in his Affect Regulation Theory.

In the literature on mental development and emotion regulation, there seems to be consensus on the first requirement for enhancing emotional self-regulatory skills: establishing the regulation of arousal states and tensions (Fonagy & Target, 2002; Schore, 1994; Vliegen et al., 2009). During the (healthy) attachment process, regulating the child's tensions and stress constantly takes place during the development of emotional self-regulation. Starting immediately after birth, parents/caregivers regulate the young child's tensions and stress through facial expressions, vocal expressions, and body language. In this so-called co-regulation, the young child must be helped not to become overwhelmed by the intensity of the affects (Schmeets & Verheugt-Pleiter, 2005; Stern, 2010) because of the negative impact of tensions and stress on practicing new skills (Murray & Rosanbalm, 2017). Therefore, a well-tuned regulation of tensions and affects in these child-parent interactions has been particularly emphasized as an important indicator of the quality of emotional self-regulation skills (Kim et al., 2014; Spinrad et al., 2004; Sroufe et al., 1999;).

During these early social interactions with caregivers by co-regulation, the development of epistemic trust starts. Epistemic trust has been proposed as a fundamental target for enhancing emotional self-regulation (Fonagy & Allison, 2014; Sperber et al., 2010). The development of epistemic trust starts with safe, sensitive, and attuned social experiences with caregivers. However, little epistemic trust due to negative caregiver experiences can lead to constant feelings of insecurity and stress (Fonagy & Campbell, n.d). On the other hand, positive relationships promote self-efficacy and allow children to feel secure enough to practice new skills and learn from mistakes (Rosanbalm & Muray, 2017).

In the attachment process, during tension/stress regulation and the development of epistemic trust by the parents/caregivers, the development of attention regulation starts with joint attention (Naber et al., 2007). Joint attention acts as a stress regulator (Harman et al., 1997), whereby caregivers of securely attached children act as external regulators for children's emotions and behavior (Cooke et al., 2019). Fonagy & Target (2002) indicate that there is evidence that the ability to regulate attention and focus is necessary for the development of further reflective functions such as talking and thinking about feelings. Two factors seem important: the quality of the regulatory function of caregivers and the balance between attachment and exploration (Pallini et al., 2019). The balance between attachment and exploration in safe and secure relationships is believed to influence children's flexibility of attention and concentration (Pallini et al., 2019; Main, 2000). Exploration can occur when individuals share a joint focus of attention and mutually create new actions in succession. Thereby, each individual anticipates the actions of the other and offers the opportunity to explore (Evans & Porter, 2009). To enhance attention regulation, therapists can focus on facilitating bodily senses through the right combination of up-regulating and down-regulating sensory experiences. As a result, it enhances sensory, emotional, and cognitive functioning (Crittenden, 2015).

In the attachment process, the parents/caregivers use reflective functioning to instill mentalizing capacity in the child (Fonagy & Target, 2002; Slade, 2005) by slowing interactions (Fonagy & Luyten, n.d.) and offering alternatives. The parent/caregiver thereby deliberately reflects the mental state of the child, also known as "affect mirroring." Thereby the caregiver's communication is "marked," which means that they show the child that they see and understand the child's internal state, but at the same time signal that it belongs to the child and not to themselves. Affect mirroring also draws the child's attention to the parents/ caregivers in communicating.

Through learning to focus and regulate attention, the child gradually develops a mental representation of feelings of itself. Fonagy et al. (2018) indicate that having a mental representation of oneself can be seen as conditional before the child can learn to think and talk about the feelings and intentions of others and itself, which is called mentalization (Fonagy et al., 2018; Schore, 1994). As soon as mentalization occurs, emotional self-regulation is further developed (Harman et al., 1997). Although the literature provides some indications about the phasing of a developmental treatment, it is unclear whether the therapeutic actions described per phase in the ArAT program are actually applied in that particular phase.

Within the ArAT program, it is expected that tension-reducing actions are performed throughout the intervention but at a decreasing frequency because children are expected to increase tension regulation skills during the program. Likewise, attention-improving therapeutic actions are expected most frequently deployed in the attention-regulation phase. However, they are also expected to be used to a decreasing extent in the program's last phase. Finally, affect- regulating therapeutic actions are expected to be deployed most frequently in the affect-regulating phase, with a possible onset in the attention-regulating phase. The main intention of this study was to obtain first indications on whether the theoretical description of the phases of the ArAT program is observable as such in practice.

Method

We collected film recordings of ArAT sessions. These recordings were viewed and rated using a checklist to explore whether the therapeutic actions were present.

Participants

In this study, twelve art therapists who treated twelve clients and six raters were involved. The therapists had a bachelor's degree in art therapy and were employed in youth care, mental health care, or their private practice in the Netherlands. In addition, therapists have at least five years of experience as art therapist with children and/or adolescents. The therapists were trained in the ArAT program by a national organization. The training consisted of four days of six hours and 16 hours of self-study. In this training, attention was paid to the underlying theoretical model of ArAT, and the different intervention techniques used in the three phases during a treatment. The training is approved by the register of art therapy in the Netherlands (Nieuwenhuis et al., 2020).

Clients were children and adolescents aged six to 18 years with psychosocial problems, according to referrers and/or parents/carers. Raters of the film clips were six graduate bachelor art therapy students of NHLStenden University, Leeuwarden, The Netherlands (1 male, five females; ranging in age from 20 to 40). Raters were trained in the theories of the ArAT program within their training as art therapy bachelor students, which was supplemented by training from a developer of ArAT in a two-hour session. Also, raters were intensively trained by the first author within three two-hour sessions to apply the checklist before rating the film clips.

Measurement

A measurement instrument developed and evaluated in a previous study was used (Bosgraaf et al., 2022) (see Appendix A/Chapter 2)). This checklist contains 15 observable therapeutic actions (items) extracted from the theoretical concepts of the ArAT program and uniformly divided over the three phases (tension, attention, and affect regulation (five items each). Every single item had an explanatory subtext. The question asked was: did you observe the described therapeutic action? Answering options were Yes or No.

Twelve items (Q1, Q2, Q3, Q4, Q5, Q7, Q8, Q9, Q12, Q13, Q14, Q15) met sufficient total agreement between raters (≥ 70%). The three remaining items showed numbers between 40% - 70% (Q6, Q10, Q11). Each item was rated independently by two observers.

Filmclips

The observed video fragments concerned 36 film clips from twelve therapy sessions by twelve ArAT-trained art therapists treating a child or adolescent with psychosocial problems. The sessions were recorded and lasted each about 45 minutes. The recorded sessions were randomly collected (independent of the phase of therapy). Afterward, therapists were asked in which phase of the ArAT program the client in the film was treated. The twelve video recordings were checked by the researchers on whether film recordings of all phases were present. The collection of videos would have continued if not all phases would had been represented in the data. The video recordings of 45 minutes were divided into 15-minute film segments. Next, film clips of 30-seconds were extracted from the 15-minute segments. This resulted in 36 film clips. The final distribution of film clips was as follows: tension-regulation phase (N = 9), attention-regulation phase (N = 24), and affect-regulation phase (N = 3).

Procedure

Raters independently took part in two sessions where they rated three 30-second film clips in each session. Thus, each rater rated a total of six film clips. Data was collected through digital means (Qualtrics, 2020) in a classroom of NHL Stenden University of Applied Sciences, Leeuwarden, The Netherlands. In the session, the checklist was sent by email and filled in by smartphone. To assure independent ratings, raters were separated from each other in the room. Raters were allowed to stop the film clip and watch parts of it again. There was no time limit.

Analysis

Data were analyzed using SPSS version 27. Because of the skewed rating distribution, we decided to perform nonparametric statistical methods to detect differences between the phases.

Within each single treatment phase (tension, attention, and affect), we examined whether the number of phase-dependent therapeutic actions differed by performing Friedman tests (Friedman, 1937). The Friedman test is a statistical test used to determine if three or more measurements from the same group are significantly different from on a skewed variable of interest (Sawilowsky & Fahoome, 2014). Next, the Wilcoxon signed-rank test was used to explore whether there were pairwise differences within phases. The Wilcoxon test is used to compare two paired groups, and its goal is to determine if two or more sets of pairs are statistically different from one another. Because of the explorative nature of this study, we decided to test on a $p < .05$ significance level and consider $p < .10$ as a trend.

Furthermore, for each single therapeutic dependent-phase action (tension-phase actions, attention-phase actions, and affect-phase actions), a Kruskal-Wallis was performed to explore whether their frequency differed between the three treatment phases. The Kruskal-Wallis test is a nonparametric test that aims to determine if the populations are identical or if at least one of the populations tends to give observations that are different from those of other populations. Subsequently, pairwise comparisons were applied using Mann-Whitney tests. The Mann–Whitney test is a nonparametric test that aims to test the equality of two populations.

Ethics

A statement of (informed) consent regarding this study was requested from the institutions, therapists, clients, and parents involved. The signed informed consent was kept with the therapist or institution. The client's and parent's data are unknown to the researcher(s). The video material of the therapeutic session was sent to the researcher via a secure connection (Filesender) with a separate key. The film clips were viewed securely. Film clips are securely stored on a server of NHL Stenden University, Leeuwarden. The study was assessed as not subject to WMO by the CCMO of the Leeuwarden Medical Center in the Netherlands (nr. RTPO 1032a).

Results

Friedman tests showed no indications that therapeutic actions were in congruence with their reported phase. However, a similar 'dominance structure' within each treatment phase concerning the observed therapeutic actions was found: in each treatment phase, tension regulation actions were most frequently observed, followed by attention improving actions, and affect-regulating actions the least (tension reducing phase $\chi^2(2) = 14.00$, $p < .01$**;** attention-improving phase $\chi^2(2) = 36.17$, $p < .01$**;** affect-regulation phase $\chi^2(2) = 4.67$, $p < .10$).

Next, Wilcoxon tests calculated the differences between the individual pairs of therapeutic actions (see rows in table 1). In the film clips representing the tension-regulating phase, there was a marginally significant difference in frequency between tension-reducing and attention-improving actions ($W = 2.50$, $p < .10$). The frequency of use between tension-reducing and affect-regulating actions ($W = .00$, $p < .01$), and between the use of attention-improving and affect-regulating actions ($W = .00$, $p < .05$) both differed significantly.

However, in the film clips representing the attention-regulating phase, all pairwise comparisons differed significantly: the frequency of use between tension-reducing and attention-improving actions ($W = 23.00$, $p < .01$), between the use of tension-reducing and affect-regulating actions ($W = .00$, $p < .01$), and attention-improving and affect-regulating actions ($W = .00$, $p < .01$).

In the film clips representing the affect-regulating phase, the frequency of use between tension-reducing and attention-improving actions did not differ ($W = .00$,

p = .32). The frequency between the use of tension-reducing and affect-regulating actions was marginally significant (W = .00, p < .10), and the frequency between attention-improving and affect-regulating actions did not differ (W = .00, p = .18).

Furthermore, no differences between the film clips representing the treatment phases (tension-, attention- and affect regulation) could be detected for each type of observed therapeutic action using the Kruskal-Wallis test: there were no differences in the frequency of tension-reducing therapeutic actions c.q. attention improving therapeutic actions c.q. affect-regulating therapeutic actions between the different phases. Also, Mann-Whitney tests pointed to no pairwise differences in observed actions between the phases (see columns in table 1).

Table 1
Means of Therapeutic Actions per Deployed Phase

Film clips representing phase	Means of Tension-regulating therapeutic actions	Means of Attention-regulating therapeutic actions	Means of Affect- regulating therapeutic actions
Tension-regulation	4.0^{a*}_{a}	3.3^{b*}_{a}	2.0^{c}_{a}
Attention-regulation	4.1^{a}_{a}	3.3^{b}_{a}	2.0^{c}_{a}
Affect-regulation	3.3^{a*}_{a}	2.7^{ab*}_{a}	1.7^{b*}_{a}

Note Means in the same row that do not share superscripts differ at p < .05.
Means in the same column that do not share subscripts differ at p < .01.
*differences are marginally significant.

Discussion

The main objective of this study was to obtain first indications on whether the theoretical description of the phases of the ArAT program is also observable as such in practice. The ArAT program, defines three phases (tension-, attention- and affect regulation). According to the ArAT program, tension-reducing actions are expected to be performed throughout the intervention but at a decreasing frequency because children are expected to increase tension regulation skills during the program. Attention-regulating therapeutic actions are expected to be most frequently deployed in the attentional regulating phase. However, they are also expected to be used to a decreasing extent in the program's last phase. Lastly, affect-regulating therapeutic actions are expected to be deployed most frequently in the affect-regulating phase, with an onset in the attention-regulating phase.

Our study shows that ArAT therapists do not appear to implement their regulating therapeutic actions as expected; the results do not show a pattern whereby tension-regulating actions are predominantly implemented in the tension-regulating phase, nor do they show a predominant use of attention-regulating actions in the attention-regulating phase or affect- regulating actions in the affect-regulating phase. Moreover, the trend is that in all phases, mostly tension-regulating therapeutic actions are used, to a lesser degree, attention-regulating therapeutic actions, and subsequently, affect-

regulating therapeutic actions. Furthermore, the results showed that therapists deploy all three sets of therapeutic actions (tension-, attention-, and affect-regulating therapeutic actions) approximately equally over the three treatment phases.

Thus, although the ArAT program assumes a clear delineation in using the different sets of therapeutic actions (tension-attention- and affect-regulating), this was not observed in practice. Even more so, regardless of the treatment phase, therapists mainly focus on tension-regulating processes next to attention and affect regulation processes. An explanation for not observing a decreasing frequency of therapeutic actions between phases could be that therapists adapt their behavior to the client's needs and circumstances during therapy, regardless of the treatment phase. This process is called responsiveness. Therapists interact to make clients feel understood, valued, and supported in fulfilling personal needs and goals (Sousa et al., 2011), which might happen regardless of strict delineation in so-called phases. These findings align with a previous narrative review that concluded that therapist behavior in art treatments for children and adolescents with psychosocial problems is deployed flexibly (Bosgraaf et al., 2020).

This study indicates that tension-regulating actions are widely used during every phase of the developmental ArAT program. Thereby, affect-regulating therapeutic actions are performed the least. Affect regulation is believed to be a major developmental step. For children to think and talk about their feelings requires a mental representation of themselves (Fonagy et al., 2018). Therapists seem to substantiate this by being thoughtful with the use of affect-regulating therapeutic actions if tensions rise high. They mainly deploy tension-regulating therapeutic actions to keep tensions low. This seems to be confirmed by the number of film clips per phase that were randomly retrieved from practice. Here, a difference in the stage of therapy was discernible. When the therapists indicated that they were working in the affect-regulating phase, just as many or even more stress- and attention-regulating therapeutic actions were applied compared to the number of affect-regulating therapeutic actions. An explanation could be that this process evokes tensions when the child makes the developmental step to think and talk about their feelings and behavior. Specifically, then, tension-regulating actions stay important.

This brings us to whether we can and should follow the linear healthy developmental line for developing emotional self-regulatory skills within developmental art therapies. Should certain underlying regulation skills be learned first? We observed that tension-regulating therapeutic actions are performed most frequently, followed by attention-regulating therapeutic actions. In the attachment process, regulating the child's stress constantly takes place (Fonagy et al., 2018), in line with the results of this study. During this process, the development of attention starts with joint attention (Naber et al., 2007). It also appears to act as a stress regulator (Harman et al., 1997), which could be interpreted in a way that attention regulation can be seen as a form of tension regulation, and thus indicates that tension regulation might be a vital component of the whole process of working towards the regulation of oneself. Therefore, stress (tension) reducing therapeutic actions, including attention regulatory therapeutic actions, appear to be an

important start in the development of emotional self-regulation within developmental (art) therapy. Only after tension is reduced can one slowly start to enhance thinking and talking about feelings. Stress-reducing therapeutic actions remain of great importance in this regard.

Considering all of the above, another question arises: does ArAT, a program specifying phase-wise practice, differ from regular art therapy for children and adolescents with psychosocial problems? The ArAT program was created and distilled from practice. Art therapeutic actions of art therapists were investigated through peer supervision with a group of art therapists and, eventually, described. From this point of view, it can be said that ArAT reflects practice. ArAT mainly seems to make art therapeutic actions from practice explicit. In addition, the theoretical frameworks give indications that these therapeutic actions should be applied in a developmental-oriented phasing. But in art therapy practice, the deployment of therapeutic actions does not seem to proceed as linearly as assumed in theory. Therefore, this study provides more insight into art therapy practice in treating children and adolescents with psychosocial problems.

Strengths and Limitations

This naturalistic and explorative study describes treatments by art therapists using the ArAT program in daily practice. This practice-based study presents several challenges. The 36 film clips were randomly collected from practice, with therapists indicating which phase they worked. As a result, the distribution between the three groups of film clips was not even. Most clips involved attention-regulation (N=24) and tension-regulation (N=9), and three film clips involved the affect regulation-phase. Although we would strive for a (broader) even distribution across phases in an ideal situation, current results still show a consistent pattern.

Also, regarding the 30-second film clips, one might suggest rating more time of the total 15 minutes to cover more of the therapy sessions. Film clips of 30-seconds were selected because raters evaluated the film clips as too long, because it caused fatigue. Therefore, we decided to select 'typical' short clips that involved, according to the first author, clear therapist actions. A disadvantage of the shorter clips could be that the context of the session is missed. This was not confirmed by the participants after training with shorter clips, the participants indicated that the therapeutic actions and their context were observable in 30-seconds film clips. Although the raters indicated that they could observe the therapeutic actions within 30-seconds of film clips, it would be interesting to view larger parts of sessions, with the caveat that the raters can experience this as tiring and strenuous. Perhaps a more limited number of film clips to rate per session, more raters, or multiple assessment sessions could provide a solution.

Furthermore, because of the not normal distribution, we used non-parametrical tests and, therefore, only statements can be made about this specific situation. Also, no time frame regarding the duration of the phases is included in this study. Therefore, it is unclear how long therapists work in the different phases and whether the goals were achieved.

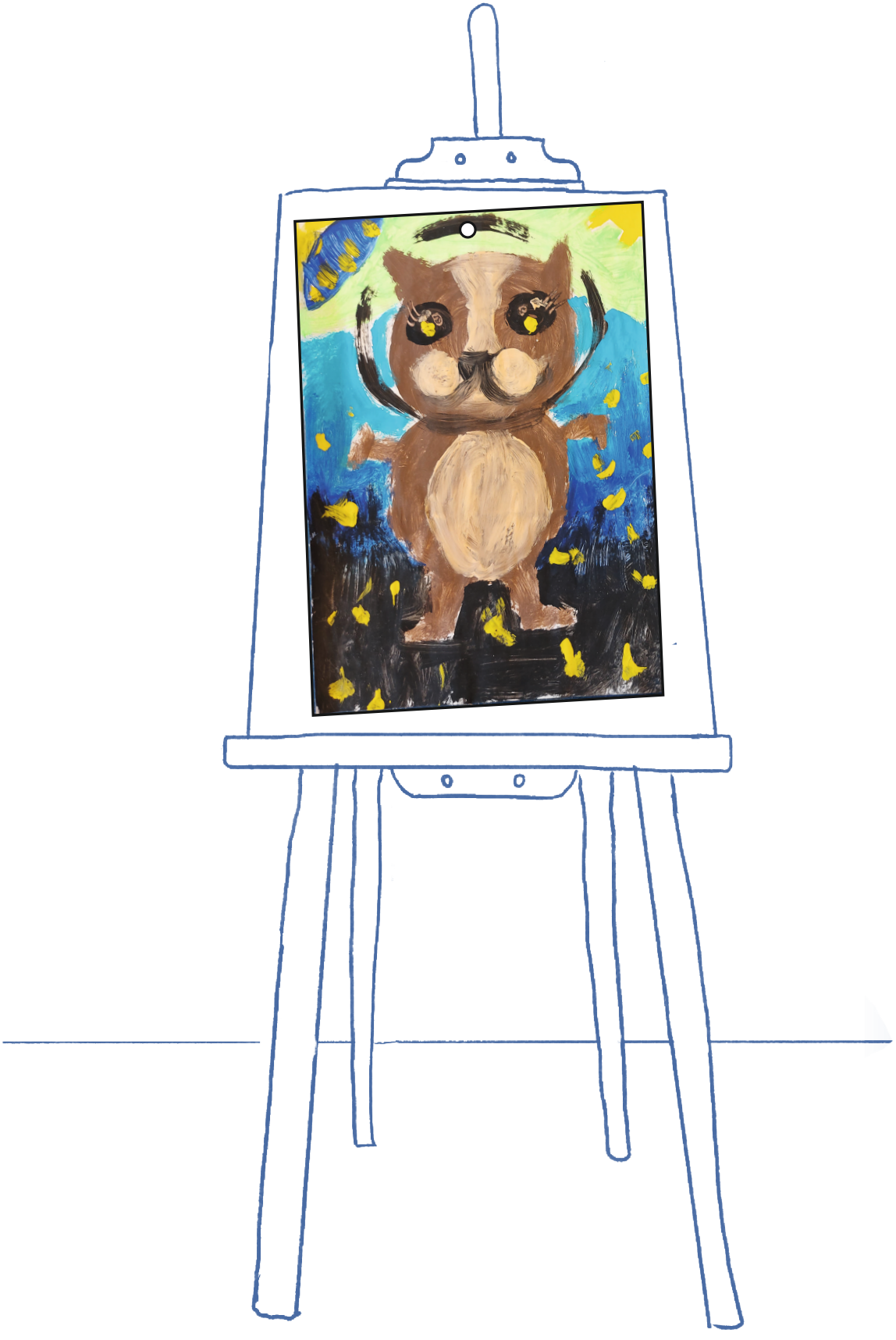
Implications for Policy, Practice, and Research

This study shows that mainly tension-regulating therapeutic actions are used in treating children and adolescents with psychosocial problems. Forms of art therapy and therapeutic actions focused on developing, understanding, and talking about feelings do not seem to fit in the initial phase of developmental treatment. Art therapists should be aware that tension-regulating therapeutic actions are likely relevant at any developmental therapy stage. Affect-regulating therapeutic actions can be used at a later stage once the development of a mental representation has started and mentalizing can be developed further. Next, it is recommended to investigate whether the results of this study differ from regular art therapy for children/adolescents. The measurement instrument in this study could be used with larger groups of children and adolescents with similar problems within regular art therapies to determine whether a similar focus on tension- and attention-related therapeutic actions can be observed. This gains insight into whether these therapeutic actions occur specifically within ArAT or are also present in regular art therapies.

The results of this research can also provide more direction for further development of the ArAT program. The use of strict phasing is not reflected in practice in this study. Therefore, not clear are the benefits of phasing. Further research may provide more insight into whether the therapeutic actions contribute to the beneficial effects of ArAT. Therefore, further research is needed into the effects of ArAT on emotional self-regulation and psychosocial problems.

Conclusions

The development oriented ArAT program's phasing is not as observable in practice. Instead, tension-regulating therapeutic actions and, to a lesser degree, attention-regulating therapeutic actions seem to predominate during all phases of treatment. Therapeutic actions used to learn to think and talk about feelings (affect-regulating therapeutic actions) are least used. Tension-reducing therapeutic actions and attention regulatory therapeutic actions possibly act as stress-regulating actions and appear to be an important process in developing emotional self-regulation within developmental art therapy. These stress-reducing therapeutic actions seemingly need to be addressed before one can start to enhance thinking and talking about feelings. Stress-reducing therapeutic actions remain of great importance in this regard. This research is a first step toward understanding an art therapy program's therapeutic actions in treating children and adolescents with emotional self-regulation and psychosocial problems.



CHAPTER 5

Process Evaluation of an Art Therapeutic Treatment for Children and Adolescents with Psychosocial Problems

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Abstract

Background The Affect regulating Arts Therapies program is an approach designed to address psychosocial problems among children and adolescents. It focuses on improving affect-regulation skills through tension-regulation, attention-regulation, and affect-regulation phases. This study encompassed a process evaluation, in which treatment integrity, satisfaction, and perceived benefits and barriers were explored.

Method Treatment integrity was investigated by observing therapeutic actions during recorded sessions applied in practice. Satisfaction was evaluated using a survey. Perceived benefits and barriers were examined using semi-structured interviews. Children, adolescents, parents/caregivers, teachers, and art therapists were all involved.

Results All predefined therapeutic actions were observed during therapy sessions, and participants expressed their satisfaction with and understanding of therapists. The identified benefits of the program included acknowledgment of the child/adolescent, non-verbal work, and the creation of art products. Collaboration, favorable therapy conditions, parental involvement, psychoeducation, and the therapist's attitude also contributed to success. Barriers included goal misalignment, logistical/financial issues, emotional problems among parents/caregivers, parental commitment, and limited teacher involvement.

Conclusion The findings affirm ArAT as a promising strategy for addressing psychosocial problems among children and adolescents. Further research is required in order to evaluate the effectiveness of ArAT

Introduction

Psychosocial problems in children and adolescents are frequently seen; global prevalence rates range from 6.7% to 13.4% (Erskine et al., 2016; Polanczyk et al., 2015). These problems can be categorized as emotional (or internalizing), behavioral (or externalizing), and social problems (Soliman et al., 2020; Timalsina et al., 2018). As such, these problems can be considered a significant public health concern (Soliman et al., 2020).

Research suggests that most psychosocial problems in children and adolescents are linked to difficulties with emotion regulation (Dvir et al., 2014). Emotion regulation (ER) is supposed to be a critical factor in developing, maintaining, and treating these problems (Berking & Wupperman, 2012; Murray et al., 2014). Interventions targeting ER correlate with improvements in psychopathology in children and youth (Moltrecht et al., 2020). These interventions are mainly cognitively oriented, such as cognitive-behavioral therapy (CBT), emotion regulation training (ERT), emotion-focused CBT, emotion-regulation program mindfulness, and family behavioral therapy (Moltrecht et al., 2020). The effectiveness of cognitive-oriented interventions in children and adolescents is dependent on a variety of factors, including the specific cognitive skills and developmental stages of the individual (Cracco et al., 2017; Simons et al., 2010; Weisz et al., 2005; Zimmermann & Iwanski, 2014). Cognitive therapy necessitates a particular threshold of cognitive maturity and problem-solving abilities that may still need to be fully established in children and adolescents still undergoing cognitive and emotional development (Garber et al., 2016; Weisz, 2014). As a result, children and adolescents with developmental problems and delays cannot always benefit from these cognitive treatments.

For treating psychosocial problems in children and adolescents who cannot benefit from cognitive-based treatments, Art Therapy (AT) seems suitable (Bosgraaf et al., 2020). AT is an experiential form of therapy that provides a safe environment for children and adolescents to express and explore their feelings and emotions (Akhtar & Lovell, 2018) without focusing on cognitive problem-solving skills. In art therapy, through visual and tactile art materials such as drawing, painting, sculpture, and other expressive art forms, the art therapist provides a supportive environment where children and adolescents can explore their thoughts, feelings, and experiences through art creation. During therapy, the focus is on the creative process rather than on the finished product. The artwork created can serve as a visual representation of the individual's inner experiences and help to bring awareness to unconscious thoughts and emotions (American Art Therapy Association, 2017).

Recent research shows that art therapy interventions for children and adolescents incorporate various materials, techniques, and structures (Bosgraaf et al., 2020). Three types of therapist behavior can be distinguished: non-directive, directive, and eclectic. When used with various means and forms of expression, all three types of therapist behavior can significantly positively impact psychosocial issues in children and adolescents (Bosgraaf et al., 2020; Cohen-Yatziv & Regev, 2019).

A promising art therapeutic (AT) program is the Dutch Art Therapy program called Affect regulating Arts Therapies (ArAT) (Nieuwenhuis et al., 2020). ArAT is offered to children with psychosocial problems, including children with mild to borderline intellectual disabilities. The ArAT program aims to enhance affect-regulating skills and has a development-oriented approach. Effective affect regulation is a prerequisite for cognitive learning and self-regulation (Zimmerman, 2000), whereby self-regulation is the individual's capability and strategy to regulate one's emotions, behaviors, and cognitions to achieve goals (Hewig et al., 2015). The intervention originates in the practical application of professional arts therapeutic interventions in Child and Youth Mental Health Care in the Netherlands and is substantiated by theory. ArAT is described in three phases: tension-regulation (phase 1), attention-regulation (phase 2), and affect-regulation (phase 3), whereby affect is defined as physical sensations, feelings, and needs, and affect regulation as the regulation of these feelings and needs (Schmeets & Verheugt-Pleiter, 2005).

Therapists applying ArAT in practice claim to obtain satisfactory results for children and adolescents with psychosocial problems. Although ArAT has already been used in practice for several years, users' satisfaction and the program's benefits and barriers have yet to be explored (Moore et al., 2015). A process evaluation of this program is essential for several reasons. Firstly, it helps to determine whether the program is being implemented as intended and achieves its objectives. This can help determine whether the observed effects are likely attributable to the program in future outcome studies. Secondly, it helps identify potential barriers to a successful implementation and directs adaptations that can improve program effectiveness. Thirdly, it provides valuable information for program funders, stakeholders, and decision-makers to make informed decisions about program continuation or expansion (Durlak & DuPre, 2008; Wandersman et al., 2008).

In this study, we conducted a process evaluation of the ArAT program. In order to examine whether the program was implemented as intended, we observed which therapeutic actions were applied in practice. In order to identify benefits and potential barriers, we also examined the perceptions of the children and adolescents, art therapists, and their respective support networks concerning the barriers and benefits of the ArAT program.

Method

Design

This study was part of a larger research project on ArAT that consists of a process evaluation and a multiple case study. The multiple case study will be reported in a separate article. In the process evaluation, children, and adolescents (7-18 years), their parents/caregivers (informal network), their teachers or family counselors/ social volunteers (formal network), and their ArAT-trained art therapists participated. Quantitative as well as qualitative methods were applied.

ArAT sessions were recorded to evaluate therapeutic actions, and student raters assessed which therapeutic actions were applied. To evaluate how satisfied the participants were with the ArAT program, a digital quantitative survey was offered to clients' informal and formal networks. Semi-structured interviews were conducted with clients, parents/caregivers, teachers or family counselors/social volunteers, and art therapists to answer the third question.

To enhance clarity, the term 'children' encompasses both children and adolescents. In instances where a distinction is necessary, both terms will be employed individually.

Participants

Twelve art therapists and eighteen children treated according to the ArAT program were included in the evaluation. Also, the children's informal and formal networks were included in the process evaluation. The informal network consisted of the mother (n = 12), father (n = 1), both mother and father (n = 4), or a group counselor of a child placed out of home (n = 1). The formal network comprised fifteen teachers, one social care volunteer, one school social worker, and one family coach. It was assured that all formal network members met the child at least once a week in their context to provide reliable information.

The ArAT therapists had a bachelor's or master's degree in art therapy and were employed in youth care and mental health care (n = 7) or had a private practice in the Netherlands (n = 5). In addition, therapists had at least five years of experience as art therapists with children and were registered as art therapists by the Dutch Association of Art Therapy. The therapists were intensively trained (28 hours of contact time and sixteen hours of self-directed study) in the ArAT program by the founders of ArAT. The training is approved by the register of the Dutch Association on Art Therapy (Nieuwenhuis et al., 2020).

Included children were aged seven to eighteen years. At the beginning of their treatment, three participants were seven years old, two were eight years old, three were nine years old, six were ten years old, and there was one participant each at 11, 13, 15, and 16 years old. The psychosocial problems of these children included general anxiety, physical symptoms, anger issues, difficulty concentrating, poor sleep patterns, compulsive behavior, negative self-perception, struggles in maintaining friendships, dishonesty, avoidance, sudden anger outbursts, a tendency to control, self-injury, low mood, separation anxiety, emotional volatility, impulsive behavior, social withdrawal, mood fluctuations, and performance anxiety. Also, specific diagnoses were identified by authorized clinical professionals, including reactive attachment disorder (one child), reactive attachment disorder co-occurring with attention-deficit/hyperactivity disorder (ADHD) (one child), autism (three children), mild to borderline intellectual disability (one child), and language development disorder (one child). No IQ norms were established.

The children were referred to art therapy by professionals such as community health teams, psychologists, psychiatrists, and general practitioners. It was also possible that

parents/caregivers directly consulted an art therapist on their consideration without a referral of a clinical professional. The participating therapists referred the children with psychosocial problems to the researcher, who assessed their eligibility. The heterogeneity in the psychosocial problems of the client population, as well as the ways of referral/consulting, is in line with the heterogeneity seen in clinical practice in the Netherlands. The study excluded children in a continuous crisis, as determined by the involved care providers or art therapists. Children with psychosis or severe physical limitations, such as visual or tactile impairments, were excluded.

Raters of the videos were eight bachelor arts therapy students (one male, seven female) from NHL Stenden University of Applied Sciences. During a three-hour training session, the students watched film clips featuring clients across different age groups with various psychosocial issues. The raters practiced with the measurement instrument and discussed interpreting the items. The clips were recorded at different points in the ARAT therapy process.

The ArAT Program

The ArAT program aims to enhance affect-regulating skills. The program is development-oriented based on a theoretical framework outlined by Nieuwenhuis et al. (2020). Through the use of art materials and a mentalization-promoting therapeutic attitude from the therapist, the child is encouraged to perceive and reflect on their mental states and to consider the mental states of the therapist. The program aims to enhance affect-regulation skills and behavior across three distinct phases: tension-regulation, attention-regulation, and affect-regulation phase. The therapy sessions occurred weekly, and each session lasted between 45 minutes to an hour. The therapy was conducted individually, and the entire program comprised 20 sessions. Participants who could not follow sessions for more than three consecutive weeks for various reasons were excluded from further participation in the study but could remain in treatment.

The art therapist provided psychoeducation and guidance to parents/caregivers regarding the(ir) child's treatment before and during treatment, outlining the approach used in each phase and offering treatment recommendations.

Data Collection

To evaluate which therapeutic actions could be observed, a measurement instrument developed and evaluated in a previous study was used (Bosgraaf et al., 2022). This measurement instrument contains 15 descriptions of therapeutic actions (items) extracted from the theoretical concepts of the ArAT program, which are uniformly divided over three phases (tension-, attention-, and affect- regulation). Every single item has an explanatory subtext. The question asked was: Did you observe the described therapeutic action? Answering options were Yes or No. In a previous study, twelve items) showed a sufficient total agreement between raters (≥ 70%). The remaining items showed 40% - 70% (Q6, Q10, Q11) (Bosgraaf et al., 2022).

A total of eight student raters rated film clips of 15 minutes. Seven students assessed two film clips, and one student assessed three. The student raters viewed the film clips on individual computers in an enclosed room. The student raters were separated from each other so that they could not disturb or influence each other during the rating. Raters could stop the film clip. There was no time limit set. The researcher was present but not available for substantive questions. Students completed the measurement instrument on their smartphones via Qualtrics (2020).

To evaluate satisfaction with ArAT, the researchers compiled a questionnaire. The questions were based on commonly used therapy satisfaction measures found in various questionnaires or surveys that assess therapy satisfaction, also known as Client Satisfaction Questionnaires (CSQ). The questionnaire concerned satisfaction regarding the relationship with the therapist, therapy outcomes, overall experiences, duration of therapy, and information provision. Questions were adapted to the users, so there were four versions: children (7-12y), adolescents (13-18y), informal network, and formal network. The survey was offered only to children deemed capable of responding, as determined by the therapist and the parents/caregivers.

The number of questions varied from seven to ten, depending on the participant: children answered seven questions, adolescents answered ten questions, formal network members answered seven questions, and informal network members answered ten questions (See Table 3). Questions were answered on a scale of 0 (not at all) to 6 (fully). At the end of the questionnaire, participants were asked to rate their overall satisfaction with ArAT treatment (1-10). The questionnaire was offered digitally via Qualtrics (2020).

In order to assess the benefits and barriers, semi-structured interviews were conducted with participants on specific topics. The main topics were Expectations, overall satisfaction, satisfaction with results, benefits, barriers, and the value of the intervention. Interviews lasted 30 minutes to an hour and were held via a digital (Microsoft) Teams meeting.

Procedure

Regarding therapeutic actions, seventeen clients consented to have a session recorded on film during their 20-session treatment. The recording was done around the 10th session to assess the therapeutic actions employed. As a result, seventeen film recordings of the 45–60-minute therapeutic session were recorded. Fifteen-minute segments were chosen from each of the 17 film recordings. The decision to use 15-minute segments was made because assessing the full-length recordings was challenging for the evaluators due to fatigue and a loss of concentration (Bosgraaf et al., 2022). According to the principal researcher (LB), the segments were selected to the criteria that therapeutic actions were assessable.

At the end of the 20th treatment session, the satisfaction questionnaire was filled in by clients, their (in)formal network, and the art therapists.

One to four weeks after treatment, participants were interviewed to evaluate the program's satisfaction and identify the factors that contributed to the success or could

be considered barriers to the program's implementation. Interviews were conducted with clients, art therapists, and informal and formal networks.

Data concerning both studies (process evaluation and effect study) was collected from September 2020 to November 2022 in the Netherlands.

Data Analysis

Numerical data on the presence of therapeutic actions were entered in Excel. SPSS version 27 was used to analyze data further. First, mean scores of 15 therapeutic actions were calculated. Subsequently, the means per phasing (tension/attention/affect) were calculated. Finally, the Friedman test was used to determine whether there was a difference in observed therapeutic actions (tension/attention/affect). The Friedman test is a statistical test used to determine if three or more measurements within the same group significantly differ (Sawilowsky & Fahoome, 2014).

The satisfaction questionnaires were analyzed in Qualtrics (2020). From this, averages, standard deviations, and minimum and maximum scores were taken.

Recordings of the interviews on benefits and barriers with ArAT were transcribed verbatim, and names were removed. Deductive content analysis (Gioia et al., 2013) was performed using ATLAS.ti (2022) is a qualitative analysis and research software program. The analysis consisted of three rounds. In the first round, the topics were used to create an overview of the data whereby content coding labels were assigned to the text fragments under the topics, which were the exact words of the participant (in vivo coding), or small phrases composed by the researcher close to the exact words. In the second round, the content-coding labels were explored and grouped into categories. In the third round, the previously established categories were subdivided into categories denoting benefits and barriers. When interesting categories emerged, categories were extended, and existing categories did not capture interesting things. The coding process was checked by a second researcher, who randomly coded transcripts, whereby the results were discussed and adjusted if necessary.

Ethics

A statement of (informed) consent regarding this study was requested from the institutions, therapists, clients, raters, and informal/formal networks. The therapist and institution retained the signed informed consent, while the researcher securely stored the remaining signed informed consent forms in a digital environment. The client's name and informal/formal network addresses are unknown to the researcher(s), except for email addresses. The video material of the therapeutic session was sent to the researcher via a secure connection (Filesender) with a separate key. The film clips were viewed securely in a closed room. Film clips and spoken/transcribed interviews are securely stored on a server of NHLStenden University, Leeuwarden. Participation in the survey and interview was voluntary, and participants could decline if they chose.

The study was assessed as not subject to WMO by the CCMO of the Leeuwarden Medical Center in the Netherlands (nr. RTPO 1032a).

Results

Therapeutic Actions

All therapeutic actions from the measurement instrument were observed in the film clips (see Table 2). Friedman tests showed tension-regulation actions were most frequently observed, followed by attention-regulating and affect-regulating actions the least. The tension-regulating therapeutic actions showed a mean rank of 2.74, attention-regulating therapeutic actions a mean rank of 2.12, and the affect-regulating therapeutic actions a mean rank of 1.15.

All pairwise comparisons differed significantly: the frequency of use between tension-regulating and attention-regulating actions ($t(1)=5.40$; $p<.05$), between the use of tension-regulating and affect-regulating actions ($t(1)=16.00$; $p<.01$), and attention-regulating and affect-regulating actions ($t(1)=11.27$; $p<.01$). (See table 1)

Table 1

Means of Deployed Therapeutic Actions per Phase

Means of Tension-regulating therapeutic actions	Means of Attention-regulating therapeutic actions	Means of Affect-regulating therapeutic actions
4.3^{a}	3.5^{b}	1.4^{c}

Note Means that do not share superscripts differ at $p < .05$.

Evaluation of Satisfaction

Regarding the questionnaire of the informal network, item scores ranged from 2.00 to 6.00. The average satisfaction score for the ArAT program was 5.16, and the mean satisfaction rating was 7.6 on a scale of 1-10. Regarding the questionnaire of the formal network, the average satisfaction score was 3.86, and thirteen formal network members gave a mean satisfaction rating of 7,3 on a scale of 1-10. Regarding the questionnaire of the children aged 7-12, seven answered the first question, and six answered questions 2-7 (in the table, question 7 is question 11). The results ranged from a minimum of 1.00 - 6.00. The average satisfaction score was 5.11, and six children gave a mean rating of 9 on a scale of 1-10. Ten questions were asked regarding the questionnaire of adolescents aged 13-18. Three adolescents answered the first five questions, questions 6-7 (in the table, question 7 is question 11) were answered by two adolescents, and questions 8-10 were answered by one adolescent. Results ranged from a minimum of 0.00 - 6.00. The average satisfaction score was 3.50; two adolescents gave a mean rating: one adolescent rated one and one adolescent 10. The results are displayed in Table 2.

Table 2
Results Satisfaction Survey

Question	Children Mean (SD)	Adolescents Mean (SD)	Parents/ caregivers Mean (SD)	Teacher/ therapist/other Mean (SD)
I (my child/the child) felt understood by the therapist.	4.57 (1.18) (*n* = 7)	4.00 (1.63) (*n* = 3)	5.14 (0.71) (*n* = 21)	4.17 (0.76) (*n* = 18)
I (my child/the child) feel/feels visibly better and stronger than before I (they) began therapy.	4.50 (1.12) (*n* = 6)	3.33 (0.94) (*n* = 3)	4.71 (0.88) (*n* = 21)	3.72 (0.93) (*n* = 18)
The therapist paid enough attention to me (my child/the child).	5.50 (0.76) (*n* = 6)	2.33 (1.70) (*n* = 3)	5.67 (0.56) (*n* = 21)	-
I (my child/the child) enjoyed the content covered during the therapy.	5.83 (0.37) (*n* = 6)	4.00 (1.00) (*n* = 3)	5.57 (0.66) (*n* = 21)	4.33 (1.05) (*n* = 18)
The duration (length) of each therapy session was good.	6.00 (0.00) (*n* = 6)	3.00 (1.00) (*n* = 2)	5.38 (0.79) (*n* = 21)	-
I (my child/the child) would recommend this therapy to someone with a child experiencing the same problems.	5.17 (1.46) (*n* = 6)	4.00 (0.00) (*n* = 2)	5.05 (1.00) (*n* = 21)	4.12 (1.37) (*n* = 17)
I felt understood by the therapist as a parent or caregiver.	-	-	5.14 (0.89) (*n* = 21)	-
I (my child/the child) was satisfied with the waiting time.	-	4.00 (0.00) (*n* = 1)	4.86 (1.04) (*n* = 21)	3.41 (1.33) (*n* = 17)
I am satisfied with how the therapist kept me informed about important matters.	-	3.00 (0.00) (*n* = 1)	5.29 (0.88) (*n* = 21)	3.25 (2.08) (*n* = 17)
I am satisfied with the therapy results.	-	4.00 (0.00) (*n* = 1)	4.76 (0.97) (*n* = 21)	4.00 (1.37) (*n* = 16)
What I did and what I talked about during therapy mattered to me.	4.17 (1.17) (*n* = 6)	3.33 (1.70) (*n* = 3)	-	-
Total score	**5.11 (0.71)**	**3.50 (0.59)**	**5.16 (0.33)**	**3.86 (0.41)**
Satisfaction Rating	**9** (*n* = 6)	**5** (*n* = 2)	**7,6** (*n* = 21)	**7,3** (*n* = 18)

Benefits and Barriers

In order to gain insight into the benefits and barriers of ArAT, interviews were conducted with three clients, twelve therapists (concerning 18 clients), 14 mothers, three fathers, one couple, one group counselor, 12 teachers, one family coach, one social volunteer, and one school social worker (55 in total).

The qualitative analysis yielded a total of 19 categories, divided into 'Specific Elements for ArAT (Art Therapy)' and 'General Elements.' Specific Elements for ArAT refer to the categories directly related to the ArAT program (art therapy). At the same time, General Elements encompass categories related to broader aspects, contexts, or characteristics that may influence the ArAT program but are not specific to art therapy.

Specific Elements for ArAT

Participants described the success of various *work forms and assignments*, such as making books, family drawings, and engaging in drawing games. Clients expressed enthusiasm for activities like emotion cards and creating safe places. No identified barriers were reported in this category, highlighting positive engagement.

> *"She created a small hamster and made a safe home for it."* (Mother)

The importance of the *art product* was frequently emphasized. Clients took pride in their creations, and therapists, parents, and teachers acknowledged their positive impact. These concrete art products marked personal successes and triggered meaningful conversations.

> *"I created a paper-mâché bowl. I spent quite a lot of time working on it. It is beautiful... it is now in the living room." (Client, aged nine)*

No identified barriers were mentioned regarding the art products.

Therapists highlighted the importance of the *phased approach in ArAT* for program success. However, challenges surfaced, revealing unclear phase boundaries and difficulties in discerning these phases in the treatment. A tension between theoretical structure and practical application was notable.

The *theoretical framework* received positive feedback for improving therapists' understanding and confidence, but challenges also emerged. The limited guidance provided by the framework posed difficulties in ensuring precise intervention implementation.

> *"What makes therapy successful is therapists' freedom to choose the tools and techniques they use and to tailor them to the individual child and situation. This is preferable to following a rigid protocol." (Therapist)*

Parents/caregivers, teachers, therapists, and other professionals shared their perspectives on *supposed working elements*, highlighting that the therapy served as a platform for self-expression. Therapists identified vital components such as attunement, collaboration, mentalizing, co-regulation, mirroring, providing structure, and navigating through successes and setbacks. The unanimous agreement among participants emphasized creating a safe space and fostering a therapeutic atmosphere.

Therapists mentioned several *supposed working mechanisms*, including focusing attention, tuning into emotions, co-regulation, and exploring identity. Parents/caregivers supported these methods, noting that creative engagement in therapy sessions creates a relaxed atmosphere, fostering deeper conversations and emotional expression.

"The act of aligning and coordinating with each other is what I find to be the power of the intervention, and in this context, the work does not necessarily need to be symbolic." (Therapist)

No positive *side effects* of the treatment were reported. However, it was noted that the child's therapy could bring up past traumas for the parents, potentially affecting the success of the child's treatment. "Parents participating in the therapy process may sometimes bring up old traumas, which can then impact the child." (Therapist)

Parents and caregivers emphasized the *ArAT program's value* in allowing children to address issues creatively, beyond verbal communication. This approach, seen as a non-cognitive method, revealed problems not easily uncovered through traditional cognitive approaches, serving as a form of emotional release. The therapy benefited both the child and the parents personally, providing a deeper understanding of their respective issues. No barriers were identified regarding the program's value.

General Elements

Both therapists and the parent/caregivers stressed the significance of *psychoeducation* for the child's success. Psychoeducation was delivered during consultations and therapy sessions. No obstacles were reported concerning psychoeducation.

Parents/caregivers, teachers, therapists, and other professionals highlighted critical therapeutic attitudes, including understanding the child, active involvement, empathy, collaboration, and an open and non-judgmental mindset. No reported barriers were associated with therapeutic attitudes.

"She was always available when there were any issues. She also thought about other things, such as further help. What else can we do? Who can we involve?" (School social worker)

All participant groups emphasized the crucial role of a strong *therapist-client relationship* in the success of the treatment. No reported barriers were associated with the therapeutic relationship.

All participant groups, including therapists, agreed on the program's suitability and enjoyment for the *target group* of children and adolescents. Therapists emphasized the program's adaptability and potential as a starting point for further treatment, underscoring its focus on the strengths of the target group rather than their problems. However, challenges were also mentioned, such as those posed by gifted children and those with limited developmental opportunities. Therefore, therapists emphasized the significance of a well-defined problem statement to ensure precise referrals within the target group.

Therapists, recognizing the importance of the active *participation of parents/caregivers* in therapy sessions, emphasized the significant impact of their involvement.

Including parents was seen as contributing to positive changes, with no identified barriers to participation in treatment.

> *"I think that another thing that has led to the changes is that parents have been participating in the therapy" (Therapist)*

No specific benefits related to *participant characteristics* were identified. However, therapists observed challenges arising from cultural differences, limited mentalization capacity of parents/caregivers, and conflicts within the familial sphere.

Effective collaboration and communication were deemed essential for the success of the program. This applied not only to the relationships between therapists, parents, caregivers, and other relevant parties but also underscored the interconnectedness of the entire therapeutic network.

> *"I think providing a good collaborative relationship with the teacher and the parent or guardian is essential so that you can also bring in situations from outside the therapy. Moreover, to implement the transfer outside of therapy." (Therapist)*

Regarding *conditions*, the parents/caregivers acknowledged effective therapy management, emphasizing a dedicated therapy space, regular appointments, and clear agreements. Parental commitment, a stable home environment, and positive school relations were recognized as critical success factors, but challenges included transportation and occasional therapist cancellations. Balancing parental commitment as both a success factor and a potential barrier underscored the importance of stability in the home environment.

No significant benefits or barriers were identified regarding the *duration and frequency* of treatment. However, some parents expressed reservations about the adequacy of the standard 20-session structure.

The therapists noted the challenges posed by the COVID-19 pandemic, causing disruptions in treatment due to illness-related absences and remote evaluations.

> *"We missed the physical interaction with the therapist, including during in-person sessions, which facilitate communication and make everything easier" (Mother)*

External factors like changes in home or school environments, especially for children of divorced parents, were identified as potential barriers. Unpleasant events at school, such as bullying or teacher changes, were recognized as barriers by parents/caregivers, teachers, and other professionals.

Discussion

The primary purpose of this process evaluation was to assess the implementation of the ArAT program in practice for children with psychosocial problems. The evaluation aimed to examine the therapeutic actions used in clinical practice, explore the amount of satisfaction, and identify perceived benefits or barriers to the program, as reported by the children, art therapists, and their support networks.

The findings revealed that all therapeutic actions derived from the theoretical description of ArAT were observed in practice. This suggests that the therapeutic actions outlined in the theoretical framework are being implemented in practice, though strict phasing could not be detected. Tension-regulating interventions were the most frequently observed, followed by attention-regulating interventions while affect-regulating interventions were observed the least frequently. These findings are consistent with previous research, indicating a similar dominance structure. Therapeutic actions that reduce tension and regulate attention aim to regulate stress and seem important for developing emotion regulation in developmental art therapy (Bosgraaf et al., 2022). Therapeutic actions used to learn to think and talk about feelings (affect-regulating therapeutic actions) are the least used. An explanation could be that affect regulation is a critical developmental step. This process is particularly challenging for children with developmental problems and delays as it requires a clear mental representation of themselves (Fonagy et al., 2018). Therapists substantiate this by being thoughtful with the use of affect-regulating therapeutic actions if tensions rise high (Bosgraaf et al., 2022).

When collecting information from children on their satisfaction with treatments, it is crucial to consider their age and developmental stage (Coyne et al., 2019). Out of the 11 children (7-12 yrs) studied, the therapist and parents/caregivers indicated that seven could complete a questionnaire consistently. They exhibited high satisfaction with the treatment, rating it as the highest among all participant groups. Moreover, children reported feeling understood and receiving ample attention from the therapist, thus indicating a favorable perception of the therapeutic process. Only three of the seven adolescents (13-18 yrs) agreed to complete the questionnaire or were, in the opinion of the therapist/caregiver, able to complete the questionnaire reliably. These adolescents reported a positive response to the treatment, expressing satisfaction with the therapy content and feeling understood by the therapist, as evidenced by questionnaire responses. However, it is worth noting that only two clients provided ratings for overall satisfaction, and these scores were significantly discrepant from one another. Individual experiences and perceptions can vary among adolescents, as seen from these inconsistent ratings and some participants' incomplete responses. Adolescence is a period of intense change and development. Various factors, such as identity development, social pressures, and new experiences, can influence how adolescents perceive therapy and engage in treatment (Gergov et al., 2021; Wilmots et al., 2020).

The parents/caregivers indicated high levels of satisfaction with the ArAT program that was provided to their children. They also reported that their child felt better and stronger after the therapy and were content with the overall results. An explanation for these high levels of satisfaction can be attributed to the quality of the therapeutic alliance, perceived improvement in the child/adolescent, support and validation from the therapist, and meeting expectations/preferences (Duncan et al., 2003; Furlong et al., 2014; Karver et al., 2006; Shirk & Karver, 2003;). However, conditions such as transportation logistics, therapy scheduling, and financial concerns were recognized as possible barriers to the process. The acknowledgment of the impact of these obstacles is crucial because these barriers can significantly affect the parents' ability to consistently attend therapy sessions, which may impede the progress and effectiveness of the child's treatment. Regular attendance and participation are essential for therapeutic success, as they allow for consistent engagement and continuity in the therapeutic process (Zimmerman, 2019). Furthermore, failure to attend therapy sessions consistently may be due to other factors. Parent's mental health concerns, beliefs and attitudes, stress and burnout, and past trauma or experiences can hinder their ability to consistently attend therapy sessions for their child (Garland, Kruse, & Aarons, 2003; Hansen et al., 2021; Östberg & Hagekull, 2013; Ringle et al., 2015). Recognizing and addressing these psychological factors is crucial for a comprehensive approach to the child's treatment.

Additionally, it was noted by the therapists and parents/caregivers that the ArAT program could elicit past emotions and potential trauma in the parents. This prompted the need for self-care and sometimes individual support for the parents. It is essential to acknowledge the importance of addressing parents' emotional well-being during their child's psychological treatment, as it can contribute to better overall outcomes for both the child and the parents (Acri & Hoagwood, 2015).

The formal network, primarily teachers, indicated that the children felt understood by the therapist and experienced the therapy as enjoyable. They would also recommend the therapy to others. Nevertheless, in the interviews, they expressed a desire to be better informed about what happened within the therapy and to receive additional guidance on effectively managing the child's behavior. They emphasized that this increased knowledge could positively impact the therapy outcome. This finding is consistent with the scientific literature highlighting the importance of collaboration among therapists, parents/caregivers, and the school environment in optimizing therapy outcomes for children and adolescents (Weist et al., 2018). Despite this, the formal network acknowledged that the child/adolescent feels better and stronger and expressed overall satisfaction with the therapy results.

The therapists highlighted the significance of a final art product in the success of the treatment, and the teachers also mentioned the informal and formal network. According to them, it provided tangible and pride-inducing outcomes for the children, facilitated discussions, and helped transfer therapeutic progress to the real world. The positive impact of making art and the art product on self-expression, empowerment, and communication in children and adolescents has been supported by research (Malchiodi,

2012b; Stuckey & Nobel, 2010). In addition, tangible art products can represent therapeutic progress and facilitate discussions and reflections on the artwork (Potash et al., 2014).

The therapists also identified potential barriers to treatment success, such as the inability of involvement and commitment from parents to their child's therapy, recognizing that parents may have personal challenges that can impact therapy outcomes for their children. Research has shown that parental involvement and commitment can significantly impact the effectiveness of (psycho)therapy for children and adolescents (Leung & Toukmanian, 2018; Reyno & McGrath, 2006). This underscores the importance of adapting interventions to better align with the needs and capacities of parents and promoting parental engagement in the therapy process. Moreover, the importance of engaging with parents and caregivers is emphasized in the American Psychological Association's guidelines for evidence-based psychology practice, which recommend a family-centered approach to treatment (Van den Bos, 2006).

The inability to involve and commit to therapy for their child was mentioned as a potential barrier, as well as some parents' inability to mentalize. Parents who experience difficulties with mentalizing may encounter challenges in responding appropriately to their child's emotional needs. This can impact their ability to provide adequate support and care to their child at home and in therapy, ultimately hindering their progress (Allen et al., 2008; Sharp et al., 2006). Therefore, in this study, the therapist involved parents/caregivers in therapy sessions, serving as role models in children's interactions to address this problem. Additional psychoeducation was also offered to address these challenges. As such, the ability to respond to the potential (im)possibilities in mentalizing of parents/caregivers is a crucial skill for an art therapist who works with children and adolescents. It would be advisable to incorporate this skill into the training of art therapists. Research has shown that parents' ability to mentalize or understand their child's thoughts and emotions can highly impact therapeutic outcomes (Fonagy et al., 2005; Midgley & Kennedy, 2011).

Moreover, the therapists' interviews revealed that the target group for ArAT was broad, and there was ambiguity regarding which children and adolescents were suitable for the therapy. It is widely recognized in the scientific literature that clear inclusion criteria are necessary for effective therapy with children and adolescents (McLeod et al., 2013; Weisz et al., 2005). This study identified several child factors as challenging, including giftedness, severe developmental limitations, and the requirement for the child/adolescent to be receptive and open to guidance. Further training of the therapists in this regard could contribute to improved referrals.

Strengths and Limitations

This study adopts a naturalistic approach, generating in-depth and comprehensive data that reflects the actual day-to-day activities of art therapists. This allows for valuable insights into the intricate process of implementing art therapy (Hinz et al., 2020), in

this case, ArAT, in real-world settings. Furthermore, a multi-perspective research approach was employed, which involved gathering information from various sources and perspectives, such as clients, parents/caregivers, and formal networks. Combining and comparing data from these sources constitutes triangulation, which enhances the study's validity (Flick, 2009).

The small sample size of adolescents in this study may limit the generalizability of the findings for this population (Charmaz, 2014). Furthermore, some adolescents' inconsistent ratings and incomplete responses could introduce potential biases in the findings (Stake, 2005). Consequently, it is important to replicate this study specifically for this target group.

While the study acknowledged potential barriers to the ArAT program, it did not provide detailed information on the specific nature of these barriers and how they may have influenced the outcomes. Further research could explore these barriers in more depth to better understand their impact on the program's effectiveness (Acri & Hoagwood, 2015; Bratton et al., 2005).

Implications for Policy, Practice, and Research

All therapeutic actions outlined in the theoretical framework of ArAT were observed in practice, and the program has received positive feedback from participants. Nevertheless, there is room for improvement. To enhance satisfaction and effectiveness, we recommend aligning therapy goals with children's expectations, address logistical barriers, support parents' emotional well-being, and involve teachers more. Collaboration with parents/caregivers and teachers and sensitivity to potential trauma is essential. Furthermore, it is recommended that practitioners should engage in ongoing professional development to enhance their proficiency in delivering the ArAT program (Hansen et al., 2021; Schaverien, 2015).

For policymakers, ArAT offers a promising alternative for children with developmental delays and psychosocial problems, complementing existing interventions (Chorpita et al., 2011; Ehrenreich-May & Chu, 2014). More research on the effectiveness of the Affect regulating Arts Therapies (ArAT) program is needed to gain a thorough understanding of intervention outcomes, child behavior, and contributing factors. This could be achieved through a multiple systemic case study, allowing for a thorough exploration (Kazdin, 2007; Kazdin, 2008; Levitt et al., 2016). Additionally, investigating inclusion and exclusion criteria is important for establishing a systematic referral process, optimizing resource utilization, and enhancing the overall quality of care. Clear and well-defined criteria contribute to the development of effective interventions tailored to address the psychosocial problems of children and adolescents (Flick, 2009; Garland et al., 2003).

Conclusions

ArAT shows promise as a viable art therapeutic program for children with developmental delays and psychosocial problems. Policymakers and practitioners may want to consider advising on and integrating ArAT into clinical practice to enhance communication, expression, and therapeutic outcomes. However, there is room for improvement in aligning therapy goals with children's and adolescents' expectations, addressing logistical barriers, providing support for parents' emotional well-being during their child's treatment, and involving and informing teachers more about the therapy process. Additionally, further research is needed to assess the effectiveness of ArAT further.

APPENDIX

Chapter 5:
Process Evaluation of ArAT

Appendix 1
Description of the ArAT Program

The ArAT Program
The ArAT program is described in three phases: tension-regulation (phase 1), attention-regulation (phase 2), and so-called affect-regulation (phase 3), whereby affect is defined as physical sensations, feelings, and needs, and affect regulation as the regulation of these feelings and needs (Schmeets & Verheugt-Pleiter, 2005). The three phases are assumed to be indicative: the transition to the next phase can be made if the goal of the previous phase has been achieved, although tension-regulating actions may be repeated if necessary (Nieuwenhuis et al., 2020).

The First Phase: Tension-regulation
The overall treatment goal of the first phase of the ArAT program is to regulate tensions adequately and build epistemic trust so that the child is willing to be open to and learn from new experiences. Epistemic trust is an individual's willingness to consider new knowledge trustworthy and relevant and, therefore, worth integrating into their lives (Schröder-Pfeifer, 2018). It is achieved by collectively gaining positive experiences in a pleasant, playful interaction with the other (Fonagy & Allison, 2014) in which the child can feel safe and relaxed. From previous research (Bosgraaf et al., 2022), the tension-regulation phase can be characterized by five therapeutic actions. In this phase, the therapist provides the child with accessible art materials and activities that are familiar to the child and therefore cause little tension and frustration. The therapist's attitude is supportive, so the child does not become frustrated or tense. Also, the therapist leads the therapy so that it is clear to the child that the therapist is in control. Thereby, the therapist follows and mirrors the child's movement and behavior so that the child feels seen. Also, the therapist appoints or focuses non-verbally on what is seen, intending to enhance focus. Finally, the therapist can move on to the next phase if the child can be present in a relaxed manner, can accept support, tolerates guidance and boundaries, and asks for help when experiencing increasing tensions (Nieuwenhuis et al., 2020).

In the ArAT program, the tension-regulation phase can be seen as a basis for working on the treatment goals in the next two phases. If tensions rise again in later phases, it is advised to use therapeutic actions from the first phase (Nieuwenhuis et al., 2020).

Five therapeutic actions underpin this phase:
1. *Provision of Art Materials:* Offering accessible art materials and activities familiar to the child reduces tension and frustration.
2. *Supportive Environment:* The therapist maintains a supportive demeanor, preventing frustration and tension in the child.
3. *Guidance and Control:* The therapist leads the therapy, ensuring the child understands the therapist's role in managing the session, thus providing a sense of security.

4. *Mirroring and Following:* The therapist mirrors the child's movements and behaviors, making the child feel acknowledged and seen.
5. *Non-verbal Engagement:* By non-verbally focusing on observed behaviors or activities, the therapist aims to enhance the child's focus.

The Second Phase: Attention-regulation

The second phase of the program is called attention regulation. The main therapeutic outcome for the child is to be able to focus on, allow and share sensory experiences (Nieuwenhuis et al., 2020). The attention-regulation phase is also described by five therapeutic actions. First, the therapist focuses on and emphasizes (verbally and non-verbally) the experiences of the child and him/herself. Also, in this phase, the therapist is involved in the activity (to a greater or lesser extent) in such a way that one can speak of cooperation. Third, during this working together, the therapist stimulates (verbally or non-verbally) the child's choices to stimulate and explore individuality. Also, the therapist responds with sounds of engagement, such as oeh! aah! or responses in sentences such as that is beautiful! or that did not work. As the fifth therapeutic action in this phase, the therapist focuses on changes in experiences with the child or him/herself. For instance: last time you did not touch the clay, now you are.

In the ArAT program, the last phase (affect-regulation) can start when the child focuses and tolerates working with the therapist. Thereby, the child allows and shares sensory experiences, explores his environment and art materials, distinguishes between pleasant and not pleasant, and starts to make his/her own choices (Nieuwenhuis et al., 2020).

This phase concentrates on improving the child's ability to focus on, process, and share sensory experiences through five therapeutic actions:

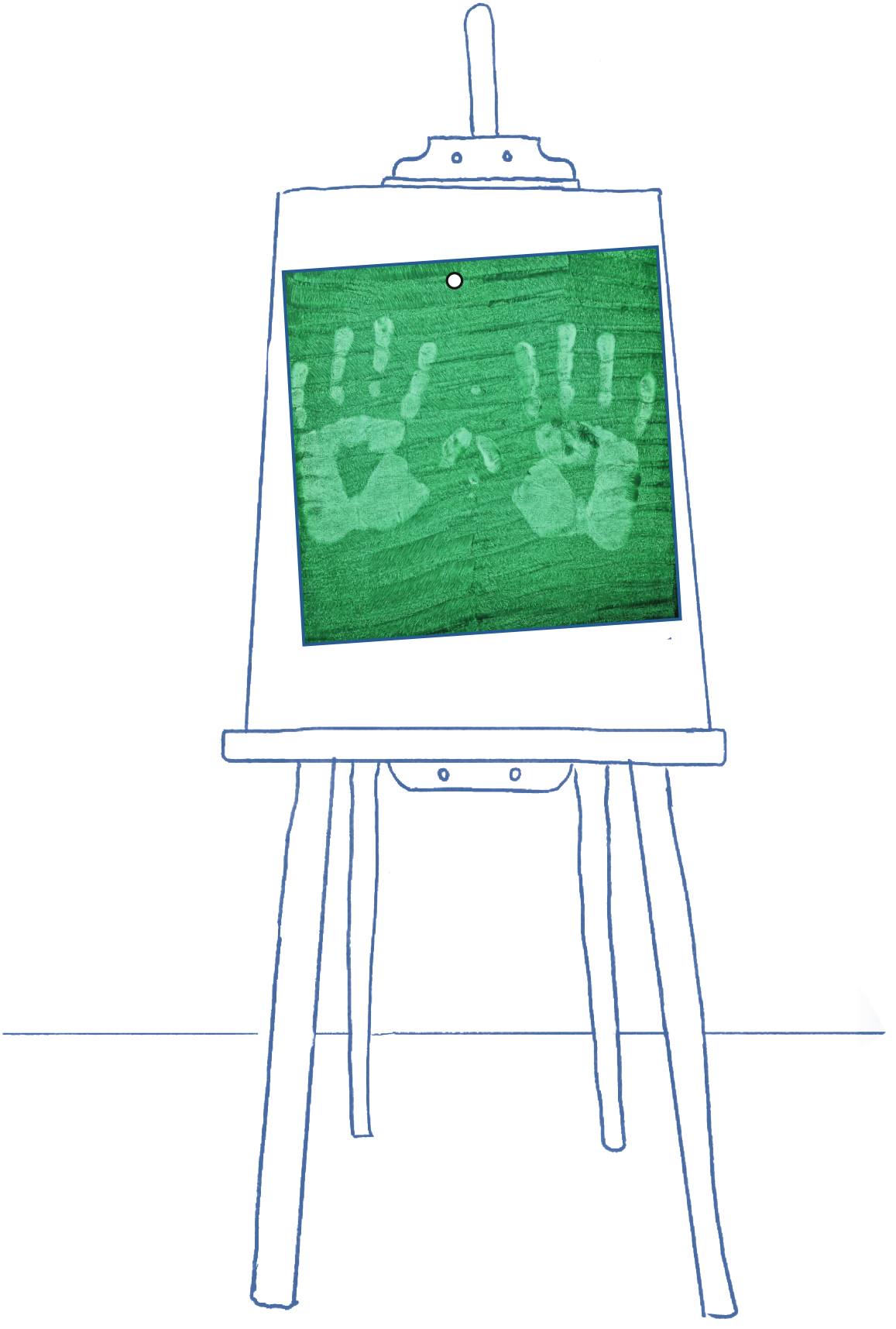
1. *Emphasizing Experiences:* The therapist verbally and non-verbally emphasizes the child's and their own experiences, encouraging mindfulness and presence.
2. *Cooperative Engagement:* The therapist is actively involved in activities, promoting a sense of collaboration between them and the child.
3. *Encouraging Choices:* By encouraging the child's choices, the therapist supports the child's exploration of individuality and personal preferences.
4. *Engagement Sounds:* The therapist uses sounds or verbal affirmations like "ooh!" or "ahh!" and phrases such as "that's beautiful!" to engage and validate the child's efforts and experiences.
5. *Focusing on Changes:* Acknowledging changes in the child's interaction with materials or in their sensory experiences fosters an awareness of growth and development.

The Third Phase: Affect-regulation

Finally, in the so-called affect regulation phase, the purpose of the ArAT program is to learn the child or adolescent to articulate his affects, thoughts, and needs (Nieuwenhuis et al., 2020). Again, five therapeutic actions characterize this phase. In the affect-regulation phase, the therapist emphasizes the impact (intensity or lack thereof) of feelings of the

child or oneself to focus on feelings and the variation within. The therapist encourages the child to give meaning to the work and art product to initiate insight/thinking. While working with the child, the therapist encourages the child to take turns to distinguish between "you and me". Also, the therapist asks about how things work or feel to raise awareness of the feelings and experiences of the child. Finally, during the process of creating, the therapist encourages the child to explore and be creative.

This phase is characterized by five therapeutic actions:
1. *Emphasis on Emotional Impact*: The therapist highlights the feelings' intensity or subtlety experienced by the child or themselves, focusing on emotional awareness.
2. *Encouraging Meaningful Engagement*: By encouraging the child to ascribe meaning to their art and actions, the therapist fosters insight and cognitive engagement.
3. *Distinction in Turn-taking*: The therapist encourages a clear distinction in interactions, emphasizing the concept of "you and me," to foster social awareness and empathy.
4. *Inquisitive Engagement*: Asking about the workings or feelings associated with various activities raises the child's awareness of their emotional and sensory experiences.
5. *Creativity and Exploration*: Encouraging the child to explore and be creative supports the development of personal expression and innovation.
In the ArAT program, the therapy is completed whenever the child can tell what is on his/her mind, distinguish, share, and exchange feelings, and becomes aware of other people's feelings. As a result, a start is made in the development of self-regulatory capacities, and the psychosocial problems may decrease. However, Further treatment may be necessary (Nieuwenhuis et al., 2020).



CHAPTER 6

Perceived Effects of an Art Therapeutic Treatment (ArAT) for Children and Adolescents with Psychosocial Problems

This chapter Is co-authored with Dr. Marinus Spreen, Dr. Kim Pattiselanno, and Prof. Dr. Susan van Hooren, and is submitted to the Journal *Child and Adolescent Mental Health* (CAMH)

Abstract

Objective Psychosocial problems are common among children and adolescents, and emotion regulation appears to be relevant in developing, maintaining, and treating them. Art therapy has been shown to enhance emotion regulation, utilizing creative expression and artmaking as communication. An affect-regulating Art Therapy program (ArAT) was developed for children and adolescents with affect- and emotion-regulation problems. This study evaluated the effects of ArAT on reducing symptoms of psychosocial problems in children and adolescents.

Method In a systemic multiple case study, 18 children and their network members rated psychosocial problems. Quantitative and qualitative methods were applied to explore the effect of ArAT. Psychosocial problems were measured at baseline, mid-intervention, post-intervention, and six-week follow-up, with additional weekly measurements targeting seven identified problematic behaviors.

Results Children and adolescents, parents, teachers, and therapists reported positive outcomes, although variability between participant groups was notable. The personalized problem list demonstrated positive progress in nearly all children. Qualitative data revealed improvements in a diversity of areas, such as attention, autonomy, and resilience.

Conclusion The ArAT program showed promising results in reducing psychosocial problems, supported by quantitative and qualitative results. Its personalized approach fosters positive changes in psychosocial problem behavior and related areas, emphasizing efficacy across diverse developmental phases. This study highlights the importance of inclusive policies, educational integration, and collaborative effort in achieving success. Future research should focus on replication, homogeneous diagnostic groups, longitudinal assessments, and intervention mechanisms to comprehensively understand effectiveness and sustainability.

Introduction

Psychosocial problems are rather common among children and adolescents, encompassing a broad spectrum from anxiety and mood disorders to behavioral and learning issues, and often categorized as emotional (internalizing), behavioral (externalizing), and social problems (Soliman et al., 2020). According to the World Health Organization (2021), approximately 10 - 20% of children and adolescents worldwide struggle with psychosocial problems, manifesting challenges affecting school performance (Pagerols et al., 2022), social interactions, and the establishment of healthy relationships (Sushma et al., 2016). Additionally, children experiencing psychosocial problems face an elevated risk of enduring mental health impairments in adulthood (Schlack et al., 2021). Given the prevalence and impact of psychosocial problems in children and adolescents, it is imperative to recognize these challenges and actively seek and implement effective interventions (Colizzi et al., 2020). Several factors contribute to psychosocial problems in children and adolescents, including biological, psychological, and social factors (WHO, 2021). Emotion regulation (ER) plays a relevant role in developing, maintaining, and treating psychosocial problems (Berking & Wupperman, 2012; Murray et al., 2014). Emotion regulation can be defined as a process of sustaining, strengthening, or impeding emotions according to a person's purposes or goals (Williams et al., 2020). Deficits in emotion regulation in relation to psychosocial problems are widely recognized (Hammud et al., 2023). In a recent meta-analysis, the outcomes suggest that a focus on ER in therapies correlates with a reduction of psychosocial problems (Moltrecht et al., 2020).

Art therapy has been shown to enhance emotion regulation and is considered a promising treatment for children and adolescents with psychosocial problems. In two reviews, it was found that art therapy positively impacted emotion regulation in children and adolescents with various mental health conditions (Bosgraaf et al., 2020; Cohen-Yatziv & Regev, 2019). Art therapy aids in regulating emotions, alleviating symptoms of anxiety and depression, and enhancing self-esteem and social skills by offering a safe environment for children to explore and develop emotional regulation, thereby mitigating psychosocial problems (Cohen-Yatziv & Regev, 2019). The use of art materials and techniques tailored to children's specific needs in art therapy was found to reduce psychosocial problems (Bosgraaf et al., 2020), whereby art therapy (AT) is considered a less cognitive approach to therapy, utilizing creative expression and artmaking as a means of communication. AT can be especially beneficial for those who struggle to communicate through words (Malchiodi, 2012b), especially for children lacking the cognitive, social, or emotional maturity that is required to benefit adequately from regular cognitive-based therapies (Moltrecht et al., 2020).

The Affect regulating Arts Therapies (ArAT) program is developed for children and adolescents who have problems benefiting from traditional cognitive-based forms of treatment. ArAT is grounded in theory and developed from practice-based experiences of professional art therapists in Child and Youth Mental Health Care in the Netherlands. The program's developmental approach focuses on children and adolescents with affect

regulation problems, including those with mild to borderline intellectual disabilities (Nieuwenhuis et al., 2020). The ArAT program aims to enhance affect-regulating skills, whereby affect is seen as the overall tone or quality of a subjective experience of an emotion. It is defined as physical sensations, feelings, and needs, and affect regulation as the regulation of these feelings and needs (Schmeets & Verheugt-Pleiter, 2005). Effective affect regulation is considered as a prerequisite for cognitive learning and self-regulation (Zimmerman, 2000), whereby self-regulation is the individual's capability and strategy to regulate one's emotions, behaviors, and cognitions to achieve goals (Hewig et al., 2015). In ArAT, three treatment strategies are employed: the use of art materials and techniques, interactive regulation through the therapist's use of body language and communication, and mentalization through exploring the child's thoughts and feelings while engaging in art therapeutic activities (Nieuwenhuis et al., 2020).

Despite practitioners reporting satisfactory outcomes for children and adolescents with psychosocial problems, studies to investigate the effectiveness of the ArAT program are lacking. In this study, we aimed to perform a multiple case study using qualitative and quantitative methods to evaluate the effects of ArAT in reducing symptoms of psychosocial problems in children and adolescents (Molina-Azorín & Fetters, 2019).

Method

Design

In this study, we utilized a systemic multiple-case study design, acknowledging the role of relevant network members in assessing the child's behavior across various contexts (Spreen, 2009). Employing both quantitative and qualitative research methods, our approach allowed for a comprehensive examination of the intervention's impact within a systemic framework (Perlesz & Lindsay, 2003). This design repeatedly assessed changes in behavior on a case-by-case basis, offering valuable insights into the intervention's effectiveness (Gustafsson, 2017). Integrating qualitative and quantitative data provided a deeper understanding of the results and identified areas for improvement (Creswell, 2015).

We opted for practice-based research to closely align with the day-to-day reality of ArAT in clinical practice. This grounded approach offers contextually relevant insights into the intervention's effectiveness in real-world settings, enhancing ecological validity and providing practical guidance for practitioners (Andrade, 2018).

Participants

Clients: Clients were referred to art therapy by professionals, such as community health workers, psychologists, psychiatrists, and general practitioners. It was also possible for parents/caregivers to consult an art therapist directly without a referral from a clinical professional. The participating art therapists referred clients with psychosocial problems to the researcher, who further assessed their eligibility. The population receiving ArAT in practice was diverse, reflecting the heterogeneity in the psychosocial problems of clients

receiving ArAT and the various referral and consulting methods commonly observed in clinical practice in the Netherlands.

The inclusion criteria for clients were children and adolescents between six and nineteen years old with psychosocial problems. Psychosocial problems encompass various difficulties that affect a person's emotional, behavioral, and social well-being. Emotional problems were characterized as internalizing problems, such as anxiety, depression, withdrawal, and physical symptoms, with no apparent medical explanation. Behavioral problems were characterized as externalizing problems, which include hyperactivity, aggressive behavior, and conduct problems. Social problems relate to a person's ability to connect and interact with others (Soliman et al., 2020).

In some cases, specific diagnoses were also identified by authorized clinical professionals. Information about children's psychosocial problems and potential diagnoses was gathered from therapists, through conversations with parents and caregivers, and, if available, from records containing diagnostic data. There were no specific restrictions on the IQ levels that were set.

The study excluded children in a continuous crisis, as determined by the involved care providers or art therapists. Additionally, children and adolescents with psychosis or severe physical limitations, such as visual or tactile impairments, were also excluded. Furthermore, art therapy was the only treatment form, and no drug treatment had started less than three months before the onset of the art treatment. During the study, vacation periods or absences of up to three weeks due to illness were allowed. Eventually, this led to a sample size of 18 children (10 male, eight female) aged seven to 16 and a mean age of 9.39 years (SD 2.39). Of the 18 children, 12 are primarily of Western origin, with six having a non-Western migration background. See Appendix 1 for extended socio-demographic variables.

Parents/caregivers: The study included parents (biological or adoptive), court-appointed legal guardians, foster parents, grandparents, aunts, uncles, and residential care workers. The exclusion criteria were the inability to participate in the study, as established by the therapist. We included caregivers who frequently interacted with the child, ensuring they were present for at least one day per week. The parents/caregivers sample comprised a minimum of one and a maximum of two parents or caregivers per child. As a result, the study included 14 mothers, six fathers, a group leader of a child placed out of home, and a foster mother.

Teacher/other (semi-)professionals: There was a preference for teachers, but other professionals such as special education staff, educational professionals working in schools or educational institutions, social volunteers, and social workers were also included. The preference was for those individuals who saw the child most frequently, but a minimum was set at one hour weekly. Per child, at least one teacher or professional was included, with a maximum of two. The recruitment process resulted in 14 teachers, one social care

volunteer, one school social worker, and one family coach. For one child, the teacher could not continue participating in the study and dropped out.

Art therapists: Participating art therapists had a bachelor's or master's degree in art therapy, were employed in youth care and mental health care, or had a private practice in the Netherlands. Additionally, therapists had at least five years of experience as art therapists with children and adolescents and were registered with the Dutch Association of Art Therapy. Therapists were trained (28 hours of contact time and sixteen hours of self-directed study) in the ArAT program by the founders of ArAT. The training was approved by the register of the Dutch Association on Art Therapy (Nieuwenhuis et al., 2020). Ultimately, twelve art therapists participated in the study. Seven art therapists were employed in youth care and mental health care, while five therapists worked in private practices in the Netherlands. Nine therapists completed the study for one child, two therapists for two children, and one therapist completed the study for five children. There were no incentives for participating in the study.

For readability, the term 'children' is used inclusively to refer to children and adolescents. The terms 'children' and 'adolescents' will be employed separately for precise distinctions when necessary.

The ArAT Program

The ArAT program consists of 20-weekly sessions of 45 minutes to one hour and addresses affect, attention, emotions, and behavior in children and adolescents through three phases: tension-regulation, attention-regulation, and affect-regulation. Utilizing art materials and techniques tailored to each child's needs, therapists apply a flexible approach, emphasizing interactive regulation through non-verbal cues such as posture, facial expression, and voice modulation. Moreover, therapists facilitate the development of mentalizing abilities, progressively nurturing the child's cognitive understanding of their emotions in both independent and interactive contexts (Nieuwenhuis, 2020).

During the tension-regulation phase, the focus is on creating a secure environment, employing familiar, low-stress activities to foster epistemic trust (Schröder-Pfeifer, 2018). This foundational phase aims to co-regulate tensions and prepare the child for further emotional development by establishing a trusting therapist-child relationship.

In the attention-regulation phase, the goal shifts to enhancing the child's focus and engagement in sensory experiences. Therapists focus on the child's experiences, actively participate in the activities, encourage the child's choices, express engagement through sounds and affirmations, and pay attention to changes in experiences. This phase sets the groundwork for the child to direct their attention more effectively, which is crucial for progressing to the next phase (Nieuwenhuis et al., 2020).

The affect-regulation phase delves into articulating and understanding emotions. Therapists create situations for children to express and discuss their feelings, fostering a dialogue that encourages emotional differentiation and empathy. This phase is critical

to developing self-regulatory skills and reducing psychosocial problems, marking a significant step towards emotional autonomy.

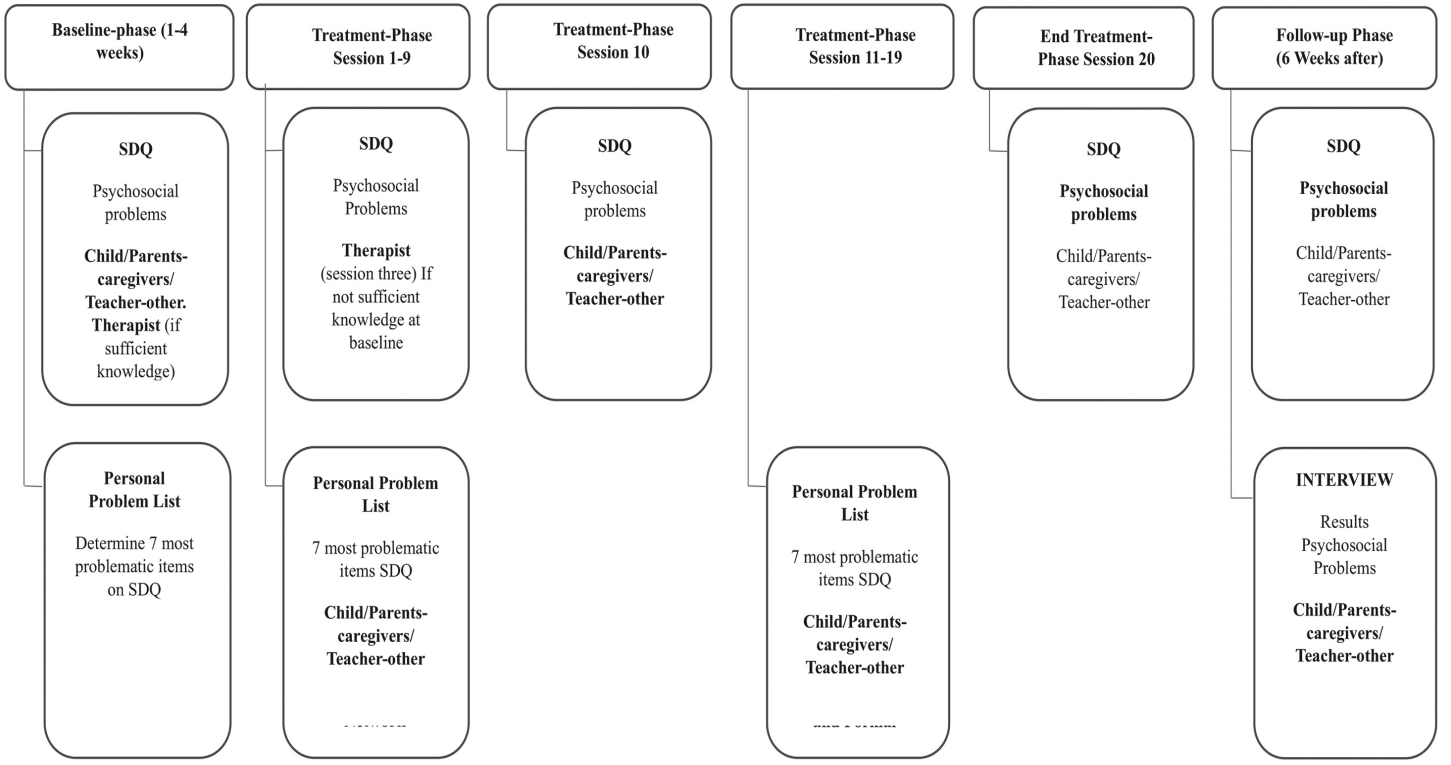
Throughout the program, therapists provide psychoeducation to parents and teachers, focusing on the practical application of each phase's strategies in the child's daily life to enhance the transfer of skills learned in therapy. Administered weekly for 20 sessions, the therapy progresses from one phase to the next upon achieving the current phase's goals, demonstrating the program's structured yet adaptable methodology. The ArAT program's comprehensive approach, developed from practice-based experiences, showcases its potential for impacting children and adolescents facing psychosocial challenges. It emphasizes the importance of a tailored therapeutic journey that aligns closely with each child's individual needs (Nieuwenhuis et al., 2020).

Data Collection

Data collection occurred between September 2020 and December 2022 in the Netherlands. It involved four regular time points: baseline (one to four weeks prior to the intervention), mid-intervention (at ten weeks), post-intervention (at 20 weeks), and follow-up (after six weeks). Furthermore, weekly personalized measurements were conducted throughout the ArAT program, targeting the seven most problematic behaviors identified during the initial assessment. Children who could respond independently (according to the therapist and parents/caregivers) completed the measurements. In contrast, parents/caregivers, teachers, other (semi) professionals, and art therapists were involved in all children. The personalized problem list was filled in following each session by all involved participants (18 times in total).

The quantitative measurements were collected after treatment through digital surveys utilizing personalized links provided via Qualtrics (2020). The qualitative method consisted of a semi-structured interview, which was held via a digital (Microsoft) Teams meeting and recorded. See Figure 1 for an overview of measurements.

Figure 1
Overview of Data Collection



Measurement Instruments

Quantitative Measurements

The Strengths and Difficulties Questionnaire (SDQ) developed by Goodman (1997) was utilized to assess psychosocial problems. The SDQ is a brief screening instrument intended for assessing psychosocial problems and skills in individuals ranging from 2 to 17 years old. It has multiple versions tailored for teachers, parents, and young individuals (11-18 years old). The questionnaire consists of 25 propositions, each scored on a three-point scale: "not true" (0), "somewhat true" (1), and "certainly true" (2). Five subscales can be computed: Emotional Symptoms, Behavioral Problems, Hyperactivity-Attention Deficit, Problems with Peers, and Pro-social Behavior. The combined scores of the first four subscales yield a Total Problems score. Concerning validity and reliability, the SDQ (Total Score) demonstrates satisfactory performance in 12-17-year-olds (Kersten et al., 2018). Additionally, to construct a personalized instrument for each child their seven most problematic items across all five subscales were determined from the baseline SDQ. In cases where items had equivalent (high) scores, parents and therapists were consulted to ascertain the most relevant item(s) for the child. Subsequently, the sum of the seven most problematic items was computed to express the degree of problematic behavior per child.

Qualitative Method

Semi-structured interviews focused on participants' expectations and observed results. The interviews lasted from half an hour to an hour and were conducted with children, parents/caregivers, teachers, other (semi) professionals, and art therapists. Participants discussed expectations and their fulfillment, as well as changes in the child's psychosocial aspects. Specific inquiries covered self-esteem, self-confidence, expression of feelings, behavior, and coping with limitations. Participants shared perceptions of negative changes, unchanged aspects, and other unintended outcomes.

Procedure

Therapists were recruited through digital newsletters and social media appeals and informed about the study during an online session. Upon consent, therapists approached suitable clients, verbally informing them and their parents about the study. Consent letters were sent, and upon receiving consent, participants completed the SDQ and other assessments. Throughout treatment, participants filled out the SDQ and the personalized problem list after each session. Reminders were sent when needed. If measurements were missed, participants were contacted to inquire about continuation. Cases were classified as dropouts if they missed over 50% of measurements. Additionally, if a participant could not continue, the research team discussed potential continuation, requiring a minimum of three participants per case.

Data Analysis

Quantitative Data

All quantitative data were analyzed with SPSS Statistics version 27. Descriptive statistics of the SDQ data were calculated per group for each time point. Friedman and Wilcoxon signed-rank tests were used to assess changes in SDQ scores over time and between specific time points, applying a significance level approach of $p < .01$ to confirm robust findings and $p < .05$ to identify potentially relevant changes, thereby ensuring a balanced evaluation of all effects observed.

For analyzing the personalized problem list scores, we divided the 18-time points into two series of nine time points each (before and after mid-intervention). Means and standard deviations were calculated, and the Nonoverlap of All Pairs (NAP) (Parker & Vannest, 2009) was computed to evaluate meaningful decreases in problematic behaviors between the two series. A NAP value below 0.35 indicated a substantial decrease in psychosocial problems.

Qualitative Data

The interviews on the outcomes were transcribed, with all names removed. A deductive content analysis was conducted using ATLAS.ti (2022). In the initial stage, we utilized predefined topics to gain an overview of the data. Content coding labels were then applied to text fragments corresponding to these topics. These labels mirrored the exact words used by the participants (in vivo coding) or were succinct phrases crafted by the researcher, closely aligned with the participants' expressions. In the second stage, we divided the content-coding labels into distinct categories. In the third stage, the established categories were further refined to distinguish between positive, negative, and "lack of" outcomes. When interesting categories emerged, we expanded upon them.

To ensure the integrity of our coding process, a second researcher (C.P.- O) conducted random checks on coding, categorization, and transcripts. Any disparities or ambiguities were resolved through discussion, and adjustments were made as needed.

Ethics

All individual participants and participating institutions received tailored information about the research's purpose, content, and methodology, ensuring comprehension. Prior informed consent was obtained from participants or parents/legal representatives for participants under 12 years of age and children and parents/legal representatives for those aged 12-16 years.

Participation was voluntary, and withdrawal was allowed at any time without providing a reason. An agreement outlined the terms of participation, emphasizing data confidentiality and anonymization. Data storage adhered to the EU General Data Protection Regulation (Hoofnagle et al., 2019). The study was submitted to the Regional Review Committee for Patient-Related Research (RTPO) in Leeuwarden, which decided

that it did not require formal assessment under the Medical Scientific Research with Humans (WMO) (no. RTPO 1032a).

Results

Participation of Therapists

During the study, thirty-one therapists initially expressed interest. Twenty-two therapists officially committed by signing informed consent forms. However, before reaching the client acceptance (treatment) stage, two therapists withdrew due to prolonged illness, and eight therapists encountered challenges in finding a suitable client match due to difficulties in securing participant cooperation for the study. Ultimately, twelve therapists started treatment for 27 children. From these 27 children treatment of 9 children was not completed because of parent/caregiver illness (two children), therapist illness (one child), irregular attendance (four children), alternative referrals (one child), and lack of parental cooperation (one child). As a result, there were 18 completed treatments.

Sample Description

The sample of children covered a variety of emotional and behavioral problems, encompassing fits of rage, anxiety, uncertainty, compulsiveness, difficulties with emotion regulation, mood swings and anger, withdrawal, and obsessive control. Concentration issues, self-regulation difficulties, sensory overload, and sleep disturbances were also present. Diagnoses spanned from Mild Intellectual Disability (MID)(n = 1) to Attention Deficit Hyperactivity Disorder (ADHD)(n = 3), Fetal Alcohol Spectrum Disorder (FASD) combined with Reactive Attachment Disorder (RAD)(n = 1), ADHD combined with Autism Spectrum Disorder (ASD)(n = 1), Specific Language Impairment (SLI)(n = 1), and Autism Spectrum Disorder (ASD)(n = 1).

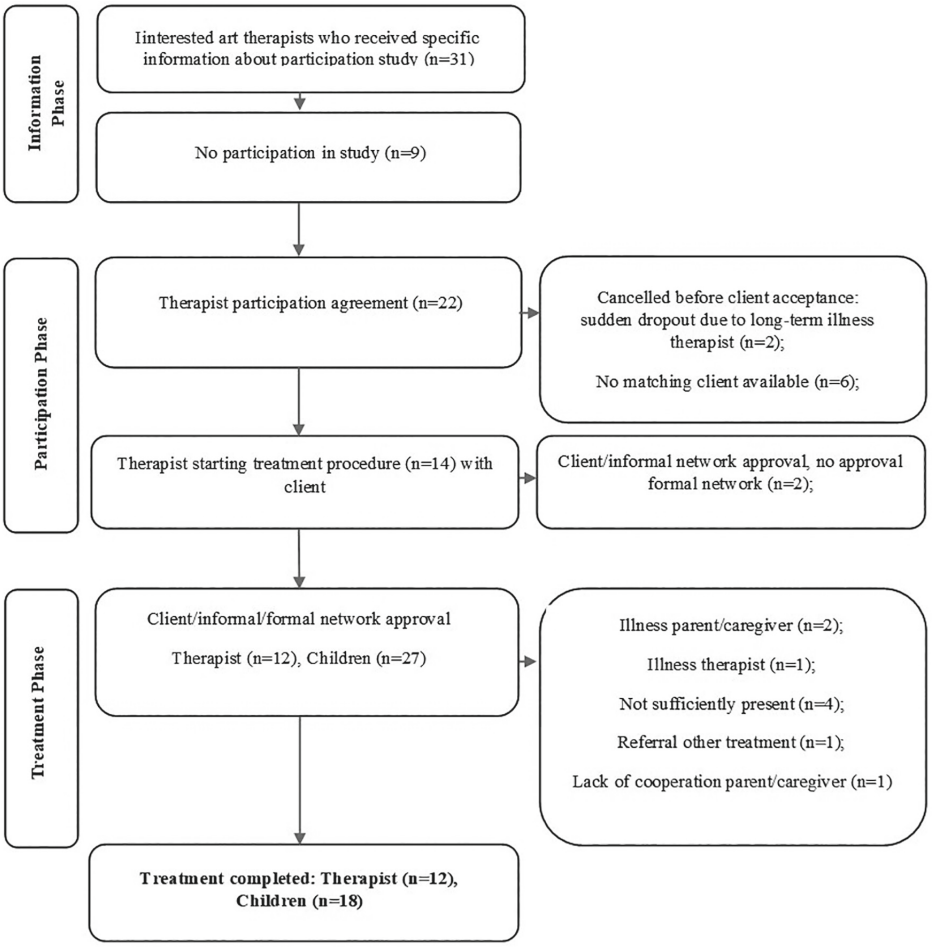
The sample of 18 children is characterized by diverse home situations: intact families (n=6), with divorced parents living with closely related families (n = 1), with divorced parents primarily residing with one parent (n = 3), from married households with siblings (n = 6), with separated parents placed in a treatment group (n = 1) and, in foster care (n = 1). The sample's formally assessed IQ scores (TIQ) (drawn from individual files) exhibit a diverse range, including values of 63, 71-83, 76, 78, 80, 88, 91, 98-110, and 117. Nine participants did not have a specific score available. Furthermore, the sample exhibits a diverse range of educational backgrounds, with children distributed across vocational education (n = 1), special education (n = 8), regular education (n = 8), and regular higher education (n = 1).

Quantitative Outcomes: SDQ

Analyzing the SDQ total problem scores at each measurement moment (T1, T2, T3, and T4) of the children and adolescents revealed no significant differences over time in self-reported psychosocial problems.

Parents/caregivers observed no reduction in SDQ total problem scores during the first half of the intervention. However, significant decreases in psychosocial problems were noted from mid-intervention (T2) to post-intervention (T3) (Z = -2.66, p < .01). Across all time points (T1, T2, T3, and T4), and in pairwise comparisons between T1 and T4, as well as T2 and T4, a decline in psychosocial problems was documented (Wilcoxon: Z = -2.02, p < .05, and Z = -3.06, p < .01).

Figure 2
Flowchart of Participation in the Study



Findings from teachers and other (semi-) professionals highlighted a decrease in perceived psychosocial problems during the intervention period, as evidenced by the Friedman test results (T1, T2, and T3: $\chi^2(2) = 7.11$, $p = .03$). Pairwise comparisons using the Wilcoxon test between T1 and T2 ($Z = -2.08$, $p = .04$), and T1 and T3 ($Z = -2.13$, $p = .03$) corroborated these positive outcomes. However, following the intervention, no significant further reduction in psychosocial problems was observed at the follow-up assessment.

The SDQ total scores reported by the therapists revealed significant changes in the SDQ total problem scores throughout the intervention and immediately after treatment, with the Friedman test showing differences across T1, T2, and T3 ($\chi^2(2) = 10.98$, $p < .01$). The Wilcoxon tests for pairwise comparisons demonstrated significant reductions from T1 to T2 ($Z = -2.17$, $p = .03$), from T1 to T3 ($Z = -2.98$, $p < .01$), and from T2 to T3 ($Z = -2.14$, $p = .03$). No data were available for scores at the follow-up point.

Table 1 provides descriptive statistics for each group's mean, standard deviation, and min/max, and Table 2 provides Friedman & Wilcoxon tests of children, parents, teachers, and therapists.

Table 1
Descriptive Statistics of Sdq Outcomes

	T1	T2	T3	T4
Children	n=7	n=7	n=7	n=5
Min./Max.	32/45	30/46	31/48	34/44
Mean (SD)	38.57 (4.76)	38.14 (6.31)	37.71 (6.42)	39.40 (3.72)
Parents/caregivers	N=21	N=21	N=21	N=20
Min./Max.	30/48	28/49	29/50	29/42
Mean (SD)	38.36 (5.47)	37.62 (5.26)	36.86 (4.94)	35.45 (3.79)
Teacher/other	n=16	n=16	n=17	n=12
Min./Max.	32/42	31/39	31/42	31/41
Mean (SD)	37.00 (3.01)	34.63 (2.31)	35.18 (3.21)	35.25 (3.08)
Therapist	n=16	n=15	n= 16	-
Min./Max.	17/32	16/31	16/29	-
Mean (SD)	25.69 (3.74)	22.87 (4.03)	20.44 (3.72)	-

Table 2
Friedman & Wilcoxon Tests of Children, Parents, Teachers, and Therapists

Pairwise comparisons	Chi-square (Friedman)	Z (Wilcoxon)	Z (Wilcoxon)	Z (Wilcoxon)	Chi-square (Friedman)	Z (Wilcoxon)	Z (Wilcoxon)	Z (Wilcoxon)
	T1-T2-T3	T1- T2	T1-T3	T2-T3	T1-T2-T3-T4	T1- T4	T2- T4	T3 -T4
Children	1.56	-.85	-.53	-.09	1.04	-.14	-.14	-.67
Parents/ caregivers	3.37	-.51	-1.27	-2.66**	12.74 **	-2.02*	-3.06 **	-.68
Teachers/ other	7.11 *	-2.08 *	-2.13 *	-.35	4.98	-1.43	-.30	-.54
Therapists	10.98 **	-2.17 *	-2.98 **	-2.14*	-	-	-	-

Note 1 T1; baseline measurement, T2; midpoint, T3; endpoint; T4; follow-up. **Note 2** Significance levels: * $p < .05$, ** $p < .01$.

Quantitative Outcomes of the Personalized Problem List

The personalized problem list included the following SDQ items the most frequently: experiencing worries (item 8, n = 18), frequently feeling down, unhappy, or tearful (item 13, n = 10), and nervousness, with quickly losing self-confidence (item 16, n = 18) as the main contributors to emotional problems.; frequent tantrums or outbursts of anger (item 5, n = 18) and lying and deceitfulness (item 18, n = 5) as behavioral issues.

Meaningful reductions in most problematic psychosocial problems were reported by five of the seven children themselves (1, 10, 13, 14, 15). Parents/caregivers, including fathers, mothers, a group leader, and foster parent, observed meaningful reductions on the personal problem list in eight of the 18 children (1, 2, 3, 8, 10, 13, 15, 16). Among the group teachers and other (semi-) professionals such as the family coach, school social worker, and social care volunteer, meaningful reductions in personal problem list scores were observed in eight out of the 17 children (4, 5, 6, 7, 9, 10, 15, 17). Therapists observed meaningful reductions in 14 of the 18 children (1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16). All meaningful changes indicated a reduction of personal psychosocial problems. Regarding agreement between participants per case, there was unanimous agreement among nine children of the total cohort (50%), with all participants acknowledging a decline in personal problems. Additionally, for one child in the group (5.56%), there was a 75% consensus among observers regarding improvement. Furthermore, observer agreement of 66.67% and 50% were elicited for five children (27.78%) and two children (11.11%) of the cohort, respectively. According to participant evaluations, only one child (5.56%) did not exhibit discernible progress.
For an overview of individual scores, see Table 3.

Table 3
Results of the Personal Problem List Scores per Case

Case No.	Participant	Number of Measures 1st. half - 2nd half treatment	Means (SD) first. half - 2nd half treatment	Results NAP
1.	Child	9 – 9	0.71 (0.17) – 0.29 (0.14)	.031*
	Father	9 – 9	0.94 (0.13) – 0.81 (0.20)	.321*
	Teacher	7 - 6	0.69 (0.39) – 0.62 (0.12)	.500
	Therapist	8 - 8	0.48 (0.29) – 0.21 (0.13)	.203*
2.	Child	9 - 8	0.68 (0.27) – 0.71 (0.11)	.514
	Father	8 - 9	0.61 (0.18) – 0.41 (0.05)	.167*
	Family Coach	4 - 9	0.82 (0.07) – 0.81 (0.20)	.444
	Therapist	9 – 8	1.02 (0.26) – 0.50 (0.19)	.014*
3.	Mother	7 - 7	1.29 (0.50) – 0.86 (0.25)	.245*
	Teacher	4 - 3	0.79 (0.34) – 0.86 (0.14)	.542
	Therapist	8 - 9	0.95 (0.44) – 0.65 (0.40)	.319*
4.	Mother	6 - 8	1.19 (0.31) – 1.11 (1.07)	.521
	Teacher	7 - 9	0.29 (0.00) – 0.14 (0.00)	.000*
	Therapist	9 - 8	0.51 (0.33) – 0.39 (0.30)	.396
5.	Mother	4 - 7	0.82 (0.18) – 1.02 (0.10)	.857
	Social Care Volunteer	7 - 6	1.20 (0.39) – 0.90 (0.15)	.298*
	Therapist	6 - 9	1.29 (0.37) – 0.78 (0.34)	.157*
6.	Mother	9 - 8	1.10 (0.19) – 1.04 (1.07)	.444
	Teacher	8 - 8	1.38 (0.20) – 0.70 (0.18)	.008*
	Therapist	8 - 7	1.18 (0.32) – 0.98 (028)	.304*
7.	Group Leader	6 - 7	0.71 (0.16) – 0.63 (0.16)	.393
	Teacher	9 - 9	1.29 (0.12) – 1.13 (0.17)	.222*
	Therapist	8 - 7	0.91 (0.31) – 0.69 (0.21)	.330*
8.	Mother	8 – 5	0.84 (0.28) – 0.60 (0.12)	.313*
	Teacher	4 - 5	0.86 (0.12) – 1.00 (0.25)	.775
	Therapist	9 - 9	0.67 (0.27) – 0.29 (0.23)	.154*
9.	Mother	8 - 6	1.04 (0.23) – 1.05 (0.20)	.542
	Teacher	6 - 7	1.05 (0.15) – 0.61 (0.27)	.071*
	Therapist	9 - 7	0.92 (0.30) – 0.45 (0.17)	.079*
10.	Child	9 - 9	0.87 (0.18) – 0.51 (0.14)	.062*
	Mother	8 - 9	1.27 (0.37) – 0.92 (0.10)	.160*
	Father	9 - 9	0.62 (0.20) – 044 (0.11)	.241*
	Teacher	7 - 5	1.24 (0.20) – 0.97 (0.19)	.171*
	Therapist	8 - 9	1.29 (0.16) – 0.59 (0.23)	.028*
11.	Child	9 - 8	1.30 (0.11) – 1.39 (0.17)	.660
	Mother	9 - 8	1.67 (0.12) – 1.62 (0.11)	.361
	Therapist	7 - 9	1.08 (0.16) – 0.84 (0.11)	.111*
12.	Mother	8 - 3	0.60 (0.32) - 0.44 (0.25)	.405
	Teacher	6 - 9	1.31 (0.27) – 1.31 (0.36)	.556
	Therapist	8 - 8	0.50 (0.18) – 0.33 (0.09)	.195*
13.	Child	8 - 9	1.34 (0.13) – 0.59 (0.21)	.000*
	Mother	6 – 4	1.29 (0.22) – 0.68 (0.41)	.167*

Table 3
Continued

Case No.	Participant	Number of Measures 1st. half - 2nd half treatment	Means (SD) first. half - 2nd half treatment	Results NAP
	Father	7 – 5	1.20 (0.16) – 0.69 (0.33)	.071
	Teacher	9 - 9	0.37 (0.22) – 0.27 (0.13)	.352
	Therapist	8 - 8	1.41 (0.30) – 0.68 (0.23)	.031*
14.	Child	7 - 9	1.84 (0.05) – 1.63 (0.08)	.032*
	Mother	4 - 5	1.75 (0.07) – 1.51 (0.51)	.525
	School Social Worker	8 - 8	1.50 (0.28) – 1.71 (0.00)	.875
	Therapist	2 - 7	1.50 (0.10) – 1.78 (0.14)	.929
15.	Child	7 - 7	1.57 (0.22) – 1.24 (0.18)	.092*
	Mother	8 - 9	1.36 (0.32) – 1.11 (0.12)	.271*
	Teacher	3 - 7	1.14 (0.00) – 0.84 (0.05)	.000*
	Therapist	8 - 9	1.52 (0.29) – 1.08 (0.22)	.083*
16.	Mother	9 - 9	0.97 (0.34) – 0.46 (0.47)	.160*
	Teacher	8 - 7	0.48 (0.15) – 0.43 (0.00)	.438
	Therapist	7 - 9	1.24 (0.37) – 0.44 (0.15)	.008*
17.	Mother	9 - 8	0.70 (0.17) – 0.79 (0.08)	.694
	Father	8 - 8	0.55 (0.12) – 0.73 (0.05)	.891
	Teacher	7 - 4	0.39 (0.28) – 0.04 (0.07)	.036*
	Therapist	9 - 6	0.59 (0.27) – 0.50 (0.30)	.444
18.	Mother	9 - 9	0.98 (0.69) – 1.35 (0.34)	.660
	Therapist	5 - 7	1.09 (0.52) – 1.22 (0.20)	.586
	Teacher	4 - 5	0.46 (0.07) – 0.89 (0.12)	1.00

Note 1 * NAP = < .35 Meaningful. **Note 2** Means over a specific set of items for the child.

Qualitative Outcomes

Ultimately, 55 interviews were conducted: three children, twelve therapists (concerning all 18 children), 14 mothers, three fathers, one couple, one group counselor, 12 teachers, one family coach, one social volunteer, and one school social worker.

Qualitative analyses unveiled two broad clusters of themes: Intervention Outcomes, and Developmental Trajectory. Within the Intervention Outcomes cluster, four primary categories emerged, focusing on psychosocial problems: Internalizing Problems, Externalizing Problems, Social Problems, and a category labeled 'Other,' which includes Focusing (Attention), Acceptance of own Limitations, Cognitive (Learning Performance), Flexibility, Distinguishing Feelings/Emotions, Inhibition (Blocking), Resilience, Self-awareness, Self-image, and Self-esteem. These categories were detailed into positive, negative, and lack of outcomes. Additionally, insights into the developmental process of children concerning outcomes and influencing factors are provided, leading to the emergence of the category Developmental Trajectory, further divided into Pattern of Development and External Influences.

Internalizing Problems

After the intervention, positive changes were noted in the *internalizing problem behavior* of three children. One participant observed a decrease in the frequency of crying, while another noticed a decrease in silent and withdrawn behavior. However, one participant mentioned that persistent nail-biting and skin-picking issues remained unchanged.

Reductions in the subcategory *anxiety* were reported about five children. Despite improvements, some residual anxiety persisted, such as fear of walking alone to school or performance anxiety.

Increased *relaxation (stress and tension*) was observed in five children. While children demonstrated improved self-soothing, some struggled to relax at home.

Enhanced *assertiveness* in six children was reported. Positive effects included improved self-advocacy, but challenges in maintaining discipline were highlighted.

> *"In the past two months, they have been insisting on staying up later, and I have been struggling to get them to go to bed. This situation has been causing friction." (Father)*

Increased *initiative-taking* in four children was noted. For example, a particular girl engaged more in cooperative play.

> *"She is back to playing with her little brother, just having fun again." (Mother)*

No adverse outcomes were reported, and no observable change in children's *passivity*, requiring assistance to start tasks, was mentioned.

Externalizing Problems

In the overarching category Externalizing Problems, addressing *externalizing problem behavior*, positive outcomes were reported for six children, including reduced anger reactivity. However, adverse outcomes were noted in six children, involving increased defiance and opposition. Short temper and passive-aggressive behavior showed no treatment effects.

> *"That passive-aggressive behavior, it is quite challenging and persists: "Do I have to go to my room?" and then they will spend the whole day in their room anyway." (Group leader)*

Positive outcomes in *concentration* were reported for seven children, indicating improved focus and task completion abilities. Also, a reduction in distraction, daydreaming, and restlessness was observed. No adverse outcomes and lack of outcomes were reported. For *hyperactivity*, positive results were noted for three children, showing decreased physical restlessness and increased calmness during tasks. No adverse outcomes or absence of outcomes were reported.

Regarding impulsivity, positive results indicated reduced impulsivity and more thoughtful behavior before acting for five children, with no adverse outcomes reported.

> *"They would quickly break something, or his hand would reach out to hurt me, causing me pain. They were indeed very impulsive, but that has significantly decreased now." (Therapist)*

Social Problems

In the overarching category of social problems, improvements in engagement and interactions were reported for nine children in the subcategory of social interaction. Children demonstrated increased social contact, conversation, and interaction with peers and adults in various settings.

> *"They share more during meals, which is a very social moment where everyone comes together in the same space and has dedicated time to connect." (Father)*

No adverse outcomes were reported, although some children refrained from group discussions or sharing specific experiences.

For *communication* as a subcategory of social problems, six children showed progress in *verbal responsiveness*, engaging more in conversations, and sharing voluntarily. No adverse outcomes were reported, but some children occasionally failed to respond to questions.

Positive outcomes were reported for 15 children with improved expression of emotions and opinions. Children were more comfortable discussing likes and dislikes, articulating feelings, and sharing personal experiences. No negative or lack of results were noted.

Concerning nonverbal expression of feelings and emotions, positive outcomes were reported for four children who showed a broader range of emotions in behavior.

> *"Oh, yes, I do observe more emotions, mainly quite positive ones, but also some anger – she does express that now as well." (Mother)*

No negative or lack of results were reported in this category.

Positive outcomes were observed in the behavior of 12 children related to *seeking help*, both verbally and non-verbally. Children demonstrated the courage to ask for and accept help, allowing themselves to be assisted more readily.

> *"When something does not work out, he gets frustrated. However, now, he has learned to think, "Oh yes, I can ask Mom for help." (Mother)*

No negative or lack of results were noted in this category.

Intervention Outcomes - Other

Improved *task focus, attention,* and *sensory awareness* were observed in eight children with prolonged attention spans and enhanced school performance was reported.

> *"He can now focus on one thing for quite a long time and complete his tasks, so his work pace is also good. He has made progress in that aspect." (Teacher)*

No adverse outcomes were recorded, though one child struggled with attention direction after the intervention, requiring extra guidance.

Positive *autonomy* outcomes, including increased independence and growing autonomy, were noted for four children, and no adverse outcomes were reported. However, limited progress was observed in six cases, requiring ongoing direction and supervision.

Positive outcomes in *accepting limitations* were reported for five children, with increased self-acceptance and a more positive self-perception. No adverse outcomes were reported in this category.

Positive changes in learning performance were noted in two children, who improved their school performance and enhanced their spelling skills. No negative outcomes were noted in this domain.

> *"I notice that they are making more progress in their learning. Additionally, the results have improved." (Teacher)*

Two children showed improved *mentalization* abilities, mentioned by the parents, with a better comprehension of others' motivations. No negative outcomes were reported in this area.

Positive outcomes in *flexibility* were seen for three children, with increased adaptability. No adverse outcomes were noted, though still having a fixed mindset was mentioned for one child.

Positive changes in *distinguishing emotions* were observed for four children, with improved emotional awareness. No adverse outcomes were mentioned.

Positive improvements in *resilience* were noted for six children, demonstrating better handling of setbacks.

> *"She can now handle disappointments better. Okay, we take a moment to acknowledge it, have a conversation about it, and then she can move on again." (Therapist)*

No adverse outcomes were reported, though one child remained sensitive to negative influences.

Positive changes in *sleep* were reported for two children, with improved sleep noted. No adverse outcomes were mentioned in this area.

In terms of *self-awareness*, positive outcomes were observed for nine children, demonstrating better self-understanding. No negative aspects of self-awareness were mentioned, but some participants reported no changes in self-awareness for 14 children.

Positive changes in *self-image* were observed in 13 children with enhanced self-perception. However, some participants noted no observable outcomes for 11 children. No adverse outcomes were mentioned.

Concerning *self-esteem*, positive changes were observed across all 18 children, noting increased self-confidence. No adverse outcomes were reported, although some participants did not recognize constant positive changes in self-esteem for seven children with varying confidence levels.

> *"Self-esteem? That varies greatly, and it also depends on the situation." (Mother)*

Developmental Trajectory

In the interviews, participants discussed two key aspects of therapy outcomes: the pattern of Development and External Influences. Many participants observed fluctuations in the development pattern of therapy outcomes, alternating between positive and negative results. The overarching consensus was that every child demonstrated growth in the specific problematic aspects identified at the beginning of therapy.

> *"I believe he is going through a significant growth phase" (Teacher).*

Factors impacting outcomes included changes in circumstances (e.g., school transitions), exam-related stress, tensions at home due to parental conflicts, initial parental hesitance in therapy involvement transforming into active engagement, and parents' acknowledgment of life's fluctuations alongside their child's continuous growth and development. For instance, client 18, who demonstrated the least progress, was associated with a particularly challenging home environment.

> *"It is nearly impossible to make progress with such a difficult parent-child relationship" (Therapist)*

Qualitative Outcomes on Intake Problems

The intervention's effectiveness was assessed by examining changes from intake to post-intervention, as detailed in Appendix 2. Over half of the 18 evaluated children and adolescents showed improvements, with reductions in initial complaints observed in internalizing problems (10 cases), externalizing problems (12 cases), and social problems (9 cases). Regarding "Other" outcomes, improvements were notable: self-esteem improved in 16 cases; self-awareness increased in 10 cases; enhanced social interaction was observed in 9 cases; improved verbal expression of feelings and emotions was noted in 15 cases.

Integrating Quantitative and Qualitative Outcomes

All 18 children demonstrated positive psychosocial outcomes according to the qualitative analyses, with 94.4% aligning with the quantitative analyses in which at least one participant had meaningful positive results on the personal problem list. Furthermore, a substantial majority of the cases (72%) that showed positive outcomes in the qualitative analyses were also solidified by the consensus of at least two participants in the quantitative analyses. Moreover, 22% of the children exhibited positive outcomes, supported, and confirmed by the assessments of at least three participants on the SDQ personal problem list.

Quantitative analysis reveals no significant worsening of problems across all cases; instead, a stabilization or a decrease in the severity of problems is observed. However, qualitative outcomes revealed some residual anxiety, increased defiance, and opposition, as well as short temper and passive-aggressive behavior.

Discussion

In this study, our objective was to assess the impact of ArAT on alleviating symptoms of psychosocial problems in children and adolescents. Positive impacts were observed not only on psychosocial problems, but also on specific problems identified at intake and in other areas. While collective self-reports from children and adolescents may not demonstrate significant reductions in psychosocial problems, an in-depth examination at an individual level indicated that the majority of children who completed the self-reports experienced meaningful improvements in their behavioral, emotional, and social responses during the study period, emphasizing the value of the ArAT. Feedback from parents and caregivers consistently highlighted positive changes in their children, further supported by detailed instances of specific reductions in psychosocial problems. Similarly, teachers and (semi-) professionals observed improvements in therapy sessions, with therapists reporting a significant overall decrease in psychosocial problems, affirming the intervention's efficacy (Bartle-Haring et al., 2022; Fairburn & Cooper, 2011). In this regard, we must consider the potential biases of therapists due to their confidence in the applied methods, and the variation in observation levels among these (semi-) professionals (Haine-Schlagel & Walsh, 2015; Klatte et al., 2023). However, the substantial agreement between the participants per case and overall points to the effectiveness of the program's customized approach (Almirall & Chronis-Tuscano, 2016; Ng & Weisz, 2015).

Qualitatively, the program yielded diverse positive outcomes related to psychosocial problems, consistent with the quantitative analysis, but also extending to other crucial areas. These included enhanced stress coping mechanisms, increased responsiveness, improved emotional expression and understanding, and more effective help-seeking behaviors, pivotal for self-regulation, emotional communication, and awareness of emotional states and needs (Compas et al., 2014; Morie et al., 2024; O'Neill et al., 2023). Furthermore, improved (non-) verbal expression of feelings/emotions, along with enhanced verbal responsivity, were observed among participants. Additionally,

advancements in focus and mentalization abilities, vital for understanding and managing thoughts and emotions, were evident, aligning with the intervention's theoretical principles (Lombardi et al., 2022; Mowder et al., 2009; Wadlinger & Isaacowitz, 2010). These improvements are particularly meaningful considering the implications of affect- and emotion- regulation in various psychosocial problems among children and adolescents (Aldao et al., 2016; Berking & Wupperman, 2012). Moreover, participants reported positive changes in self-awareness, self-esteem, resilience, and flexibility, in line with existing literature on the benefits of art therapy interventions (Kaimal et al., 2017; Schweizer, 2020; Van Lith et al., 2018). The qualitative findings not only supported the initial selection of the SDQ but also revealed a broader spectrum of outcomes, reinforcing the importance of integrating standardized and qualitative methods in early-stage research. The qualitative analyses complemented the quantitative data, highlighting areas for further exploration and refinement in future studies (Tenny et al., 2024).

Additionally, qualitative data revealed the varied nature of therapy outcomes, highlighting challenges such as residual anxiety and increased defiance. While positive social interaction and communication trends emerged, some children displayed reluctance in group participation and occasional lapses in responsiveness. Autonomy-related progress varied, with ongoing guidance needed for some children, impacting their self-esteem. The dynamic therapy process, characterized by fluctuations between positive and negative results, ultimately led to growth. Furthermore, subjective perceptions of progress contributed to this variability, emphasizing the complex interplay of factors influencing therapeutic outcomes (Jin et al., 2008; Smith & Thelen, 2003). Changes in children's circumstances and parental dynamics were also recognized as significant factors influencing outcomes, underscoring the need to consider various contextual factors comprehensively (Jabbari, 2023).

Furthermore, the 20-week ArAT program allows for substantial participant engagement and observation of its effects (Robinson et al., 2019). Some parents/caregivers wished to continue therapy after the 20 weeks, anticipating further emotional development in their child. Therefore, maintaining open communication with parents after the 20-week treatment completion is important to ensure tailored care, taking into account the principles of 'good enough' therapy, providing sufficient support that meets the primary needs of clients without striving for an unattainable ideal (Haine-Schlagel & Walsh, 2015).

Strengths and Limitations

The systemic multiple-case study design, with mixed methods, allowed for detailed assessments tailored to individual needs, offering practical insights into real-world applications of ArAT in therapeutic settings (Creswell, 2015; Spreen, 2009). Involving a wide range of participants, including therapists, parents, teachers, and clients, provided a holistic perspective on the intervention, offering insights into diverse experiences and viewpoints (Spreen, 2009).

However, limitations such as the subjective nature of qualitative data and the absence of a control group warrant consideration in interpreting the findings (Rahman, 2016). Additionally, the small sample size limits the generalizability of results to a broader population. A more extensive and diverse sample could enhance the study's external and internal validity (Gustafsson, 2017). The focus on short-term outcomes leaves unanswered questions about the sustainability of observed positive changes over the long term. Follow-up assessments at extended intervals provide insights into the durability of the intervention's effects. Furthermore, the varying caseloads among the 12 therapists, ranging from one to five clients, raise concerns about potential therapist effects on observed outcomes, requiring careful interpretation of findings (Gustafsson, 2017).

Implications for Research, Policy, and Practice

Further research is needed to validate findings through replication studies and explore the effectiveness of interventions for specific disorders and age groups, thereby enhancing targeted support and treatment efficacy. Longitudinal assessment is crucial to solidify findings and understand the long-term impact of ArAT. Quantitative and qualitative assessments to measure affect, emotion, and self-regulation can provide more robust evidence for the qualitative results found in this study, enhancing our understanding of the intervention's mechanisms (Klatte et al., 2023). Given the observed variability in treatment responses among participants, emphasizing individualized treatment approaches is essential for effectively tailoring interventions to meet each participant's specific needs (Ridder, 2017).

For policymakers, this study highlights the potential and efficacy of ArAT as a standalone intervention, especially beneficial for children and adolescents with limited verbalization, cognitive abilities, or self-awareness (Eaton et al., 2007). However, it can also serve as a precursor to verbal therapies, particularly for individuals with deficits in self-regulation. By offering a structured environment for non-verbal emotional expression through artmaking first, ArAT provides an alternative pathway for emotional processing, making it suitable for children facing challenges in verbal communication due to developmental delays, language disorders, or trauma-related difficulties (Power et al., 2023; Robinson, 2009; Schweizer et al., 2020; Wright, 2023).

Practitioners can optimize interventions for children and adolescents facing psychosocial problems by prioritizing self-regulation (Compas et al., 2014; Morie et al., 2024; O'Neill et al., 2023). Participants notably improved on stress coping, emotional expression, and help-seeking behaviors, highlighting the program's efficacy. Furthermore, integrating these interventions into school settings was met with a favorable reception, facilitating convenience and engagement among educators, therapists, and parents, thus fostering a supportive environment conducive to positive developmental outcomes (Haine-Schlagel & Walsh, 2015).

Conclusions

The ArAT program shows promise in effectively addressing psychosocial problems in children and adolescents, with positive impacts observed not only on psychosocial problems but also on specific problems identified at intake and other areas. Participants experienced improvements across various domains, including self-regulation, self-awareness, self-esteem, resilience, and flexibility. The success of the intervention highlights the importance of personalized approaches within an art therapeutic setting, as seen in the diverse positive outcomes observed. Collaborative efforts among family contexts and professionals contribute to a comprehensive support network for enhancing intervention outcomes. Future research should focus on replication studies, homogeneous diagnostic groups, longitudinal assessments, and exploring working mechanisms to clarify the program's effectiveness and sustainability further.

APPENDIX

Chapter 6:
Perceived Effects of ArAT

Appendix 1

Socio-demographic variables

Client	Problems at intake	Age at Intake	Gender	Ethnicity	Home situation	Informal Network Study[1]	Formal Network Study[2]	Formally Assessed IQ (TIQ)	Education type
1.*	Fits of rage Diagnosis: Mild Intellectual Disability (MID)	15	Female	Western	Divorced parents, lives with closely related family	Mother	Teacher Therapist	63	Vocational education
2.	Anxiety, uncertainty, compulsiveness, fits of rage	13	Female	Non-Western migration	Divorced parents, lives with mother. Visits father frequently	Father	Family- Coach Therapist	76	Special education
3.	Hypersensitive, limited flexibility, shutting down, stress, fits of rage	7	Male	Western	Divorced parents, lives partly with father and partly with mother, elder sister	Mother	Teacher Therapist	117	Regular education
4.	Separation anxiety, somatic complaints, demanding behavior	8	Female	Western	Married parents, younger brother	Mother	Teacher Therapist	-	Regular education
5.	Concentration problems, impulsivity, lack of autonomy, emotion regulation problems Diagnosis: Attention Deficit Hyperactivity Disorder (ADHD) - combined type	9	Male	Western migration	Married parents, older brother	Mother	Social volunteer Therapist	98-110	Regular education
6.	Mood swings, emotion regulation problems Diagnosis: Attention Deficit Hyperactivity Disorder (ADHD)	8	Male	Western	Separated parents, lives with mother, biological fathers' visits.	Mother	Teacher Therapist	-	Regular education
7.	Mood swings, anger, sleep problems Diagnose: Fetal Alcohol Spectrum Disorder (FASD) and Reactive Attachment Disorder (RAD)	10	Female	Non-Western migration	Separated parents, placed outside of the home, treatment group	Groupleader	Teacher Therapist	88	Special education

1 Parents, caregivers who acted as participants.

2 (Semi-) professionals who acted as participants.

Client	Problems at intake	Age at Intake	Gender	Ethnicity	Home situation	Informal Network Study[3]	Formal Network Study[4]	Formally Assessed IQ (TIQ)	Education type
8.	Fits of rage, withdrawn behavior, emotion regulation problems	8	Male	Western	Married parents. Younger sister, elder sister	Mother	Teacher Therapist	71-83	Special education
9.	Difficulties recognizing emotions, self-regulation problems, fits of rage. Diagnosis: Attention Deficit and Hyperactivity Disorder (ADHD and Autism Spectrum Disorder (ASD)	9	Male	Western migration	Divorced parents, lives with mother, two elder brothers.	Mother	Teacher Therapist	78	Special education
10.	Negative self-perception, shutting down, obsessive control. Diagnosis: Specific Language Impairment (SLI)	11	Female	Western	Married parents, one younger brother	Mother, Father	Teacher Therapist	80	Special education
11.	Attachment problems, avoidant behavior, submissive behavior, lying	10	Female	Western	Divorced parents, lives in a foster family with two foster brothers	Mother	Therapist	-	Regular education
12.	Stress-related problems, shutting down, performance anxiety. Diagnosis: Autism Spectrum Disorder (ASD)	7	Male	Western	Married parents, elder brother	Mother	Teacher Therapist	91	Regular education
13.	Anger, sadness, fear of making mistakes	11	Male	Western	Divorced parents, lives partly with father and partly with mother, twin brother, and elder sister.	Mother, Father	Teacher Therapist	-	Regular education
14.	Difficulties verbalizing emotions, low self-esteem, self-harm	16	Female	Western/Asian Biracial	Lives with mother, no contact with biological father.	Mother	School Social Worker Therapist	-	Regular higher education
15.	Emotion regulation problems, anger, difficulty maintaining friendships	10	Male	Western adoption	Married parents, no siblings.	Mother	Teacher Therapist	-	Special education

3 Parents, caregivers who acted as participants.

4 (Semi-) professionals who acted as participants.

Client	Problems at intake	Age at Intake	Gender	Ethnicity	Home situation	Informal Network Study[3]	Formal Network Study[4]	Formally Assessed IQ (TIQ)	Education type
16.	Anger, rumination, poor sleep, cognitive overload, difficulty communicating	10	Male	Western	Married parents, elder sister	Mother	Teacher Therapist	-	Regular education
17.	Problems in focusing attention (concentration problems)	9	Female	Western	Married parents, eldest of three children	Mother, Father	Teacher Therapist	-	Regular education
18.	Sensory overload, anxiety, cognitive overload, poor sensory regulation	11	Male	Western	Divorced parents, lives with mother, sees father regularly	Mother	Teacher Therapist	-	Regular education

Appendix 2

Qualitative outcomes per child

Case	Age at Intake	Gender	Problems/Diagnoses at intake	Categories Outcomes Internalizing Problems	Categories Outcomes Externalizing Problems	Categories Outcomes Social Problems	Categories Outcomes Other
1.	15	Female	Fits of rage Diagnosis: Mild Intellectual Disability (MID)	Submissiveness (more assertive), Stress, and Tensions (still finding some things exciting).		Improved Help-Seeking Behavior.	Improved Acceptance of Own Limitations, More Resilient, Improved Self-Image, Improved Self-Esteem.
2.	13	Female	Anxiety, uncertainty, compulsiveness, fits of rage	-	Less Hyperactive; Less Impulsive: Still some Externalizing Problem Behavior (sometimes lying, restless behavior).	Improved Verbal Responsivity and Improved Verbal Expression of Feelings/Emotions.	Cognitive (improved learning performance), Improved Autonomy, Improved Self-Esteem, Still sometimes Shutting Down (runs away); Less improved Self-Awareness; Still overall negative Self-Image.
3.	7	Male	Hypersensitive, limited flexibility, shutting down, stress, fits of rage	Internalizing Problem Behavior (improved mood), Less Stress/ tension, Less Anxiety (but still anxious about new situations), Passivity (more initiative);	Externalizing Problem Behavior (less arguing, but more rebellious), Improved Concentration	Improved Verbal Responsivity, Improved Help-Seeking Behavior, Social Interaction (still not participating in class circle discussions); Improved Verbal Expression of Feelings/Emotions (still reserved about sharing personal information).	Focusing (Improved attention), Improved Distinguishing Feelings/Emotions, Improved Self-Awareness, Improved Self-Esteem (inconsistently); Shutting Down (still gets stuck in emotions at times).
4.	8	Female	Separation anxiety, somatic complaints, demanding behavior	Passivity (improved initiative), Less Stress/ Tension, More Assertive.	Externalizing Problem Behavior (no more crying and anger, still sometimes controlling).	Improved Verbal Expression of feelings/ Emotions (only with help).	Focusing (improved Attention), Improved Flexibility, Improved Self-Awareness, Improved Self-Esteem, still negative Self-Image.
5.	9	Male	Concentration problems, impulsivity, lack of autonomy, emotion regulation problems Diagnosis: Attention Deficit Hyperactivity Disorder (ADHD) - combined type	Passivity (improved Initiative, but in some situations still passive); Anxiety (fear of failure).	Externalizing Problem Behavior (calmer but occasionally still having a short fuse), Improved Concentration, Less Hyperactive, less impulsive.	Improved social interaction, improved verbal expression of feelings/emotions, improved help-seeking behavior, and verbal expression of feelings/ emotions (only with help).	Acceptance of Own Limitations, Improved Distinguishing Feelings/Emotions, improved Resilience, Improved Self-Awareness, Improved Self-Esteem; Autonomy (still clinging, dependent), still negative Self-Image.

Case	Age at Intake	Gender	Problems/Diagnoses at intake	Categories Outcomes Internalizing Problems	Categories Outcomes Externalizing Problems	Categories Outcomes Social Problems	Categories Outcomes Other
6.	8	Male	Mood swings, emotion regulation problems Diagnosis: Attention Deficit Hyperactivity Disorder (ADHD)	Less Anxious; Stress and Tensions (still getting quickly overstimulated and tense).	Externalizing Problem Behavior (less angry); Less Impulsive, Improved Concentration.	Improved Verbal expression of Feelings/ Emotions; Improved Help-Seeking Behavior.	Focusing (improved Attention); Improved Self-Awareness; Improved Self-Image; Improved Self Esteem.
7.	10	Female	Mood swings, anger, sleep problems Diagnose: Fetal Alcohol Spectrum Disorder (FASD) and Reactive Attachment Disorder (RAD)	Internalizing Problem Behavior (improved mood).	Externalizing Problem Behavior (less angry, but sometimes being cheeky and careless and showing some passive-aggressive behavior); Improved Concentration, Less Hyperactive.	Improved Verbal Expression of Feelings/ Emotions; Improved Help-Seeking Behavior.	Focusing (improved Attention); Less Shutting Down (no more going out of the classroom); Improved Resilience; Improved Self-Awareness; Improved Self-Image; Improved Self-Esteem.
8.	8	Male	Fits of rage, withdrawn behavior, emotion regulation problems	Submissiveness (more assertive); Passivity (more initiative).	Hyperactivity (still restless).	Improved Verbal Expression of Feelings/ Emotions; Improved Non-Verbal Expression of Feelings/Emotions.	Improved Autonomy, Acceptance of Own Limitations, Less Shutting Down, Improved Self-Awareness, Improved Self-Image, Improved Self-Esteem.
9.	9	Male	Difficulties were recognizing emotions, self-regulation problems, and fits of rage. Diagnosis: Attention Deficit and Hyperactivity Disorder (ADHD and Autism Spectrum Disorder (ASD)	-	Less Impulsive.	Improved Social Interaction; Improved Verbal Expression of Feelings/Emotions; Improved Help-Seeking Behavior (sometimes still pushes away help).	Improved Mentalization; Distinguishing Feelings/ Emotions; Improved Self-Image; Improved Self-Esteem; Still Low Self-Awareness.

Case	Age at Intake	Gender	Problems/Diagnoses at intake	Categories Outcomes Internalizing Problems	Categories Outcomes Externalizing Problems	Categories Outcomes Social Problems	Categories Outcomes Other
10.	11	Female	Negative self-perception, shutting down, obsessive control. Diagnosis: Specific Language Impairment (SLI)	Improved assertiveness (sometimes overassertive)	Improved Concentration.	Improved Social Interaction; Improved Verbal Responsivity; Improved Verbal Expression of Feelings/ Emotions (but still limited); Improved Help-Seeking Behavior.	Improved Autonomy; Improved Acceptance of Own Limitations; Improved Flexibility; Improved Resilience; Still Low Self-Awareness.
11.	10	Female	Attachment problems, avoidant behavior, submissive behavior, lying	Less Anxiety (but still fear of going out in public).	-	Improved Social Interaction; Improved Verbal Expression of Feelings/Emotions.	Improved Distinguishing Feelings/Emotions; Improved Self-Image; Improved Self-Esteem (Occasionally uncertain); Less result on Resilience.
12.	7	Male	Stress-related problems, shutting down, performance anxiety. Diagnosis: Autism Spectrum Disorder (ASD)	Anxiety (less anxious).	Less Impulsive.	Improved Social Interaction; Improved Verbal Expression of Feelings/Emotions (but first reacting with tears, then talking); Improved Help-Seeking Behavior.	Improved Mentalization, Less Shutting Down, Improved Self-Image, Improved Self-Esteem.
13.	11	Male	Anger, sadness, fear of making mistakes	Less Anxiety (but still anxious about others' stressful behavior); Submissiveness (more Assertive); Less Stress and Tensions; Initiative (still less self-initiation).	-	Improved Social Interaction; Improved Verbal Responsivity (but not initiating conversation spontaneously); Improved Verbal Expression of Feelings/Emotions (only with trustworthy people); Improved Help-Seeking Behavior.	Focusing (improved attention but still quickly distracted); less result on Shutting Down (still withdraws easily); improved acceptance of own limitations; more flexible; Improved Resilience; Improved Self-Awareness (but still not conscious of their capabilities); Improved Self-Image; Improved Self-Esteem (but still requires frequent reassurance).

Case	Age at Intake	Gender	Problems/Diagnoses at intake	Categories Outcomes Internalizing Problems	Categories Outcomes Externalizing Problems	Categories Outcomes Social Problems	Categories Outcomes Other
14.	16	Female	Difficulties verbalizing emotions, low self-esteem, self-harm	Internalizing Problem Behavior (improved mood); Less result on Anxiety (still anxious for school); Stress and tensions (still experiencing some tensions).	-	Improved Verbal Responsivity; Improved Verbal Expression of Feelings/Emotions; Improved Non-Verbal Expression of Feelings/ Emotions; Improved Help-Seeking Behavior	Focusing (improved Attention); Improved Self-Image); improved Self-Esteem).
15.	10	Male	Emotion regulation problems, anger, difficulty maintaining friendships	Anxiety (less anxiety); less Stress and Tension.	Improved Concentration.	Improved Social Interaction; Improved Verbal Expression of Feelings/Emotions (still difficult, needs help); Improved Non-Verbal Expression of Emotions; Improved Help-Seeking Behavior.	Focusing (improved Attention, but still quickly distracted); Less result on autonomy (still requires direction or guidance); Less Shutting Down; Improved Resilience; Improved self-image; Improved self-esteem; Still less Self-Awareness.
16.	10	Male	Anger, rumination, poor sleep, cognitive overload, difficulty communicating	-	Externalizing Problem Behavior (less angry); Less Hyperactive.	Improved Social Interaction; Improved Verbal Expression of Feelings/Emotions; Improved Non-Verbal Expression of Feelings/ Emotions.	Improved Self-Awareness, Improved Sleep, Improved Self-Image, Improved Self-esteem.
17.	9	Female	Problems in focusing attention (concentration problems)	Submissiveness (more Assertive, sometimes overassertive).	Improved Concentration; Externalizing Problem Behavior (sometimes more rebellious)	Improved Verbal Expression of Feelings/ Emotions (still difficult); Improved Help-Seeking Behavior.	Focusing (improved Attention), Autonomy (Improved Autonomy), Cognitive (improved Learning Performance), Self-Awareness (but still not fully conscious of their own capabilities), Self-Image, and Self-Esteem (inconsistently).

Case	Age at Intake	Gender	Problems/Diagnoses at intake	Categories Outcomes Internalizing Problems	Categories Outcomes Externalizing Problems	Categories Outcomes Social Problems	Categories Outcomes Other
18.	11	Male	Sensory overload, anxiety, cognitive overload, poor sensory regulation	Submissiveness (more Assertive); Stress and Tensions (still nail picking/ biting behavior).	Externalizing Problem Behavior (not defensive anymore).	Improved social interaction (but still not having good contact with peers yet); Improved verbal Responsiveness; Improved verbal expression of feelings/emotions; Improved non-verbal expression of emotions.	Improved Sleep; Improved Self-Awareness; improved Self-Image; improved Self-Esteem; fewer results on Acceptance of own Limitations (has feelings of being problematic for others); Improved Autonomy (but still requires direction or guidance); fewer results on flexibility (has still a fixed mindset).

General Discussion and Conclusion

This thesis focused on evaluating the Affect regulating Arts Therapies (ArAT) program. This intervention was developed from and by the clinical experience of art therapists working in youth and mental healthcare in the Netherlands to address psychosocial problems in children and adolescents. Before this thesis, no empirical research had been conducted to evaluate the effectiveness of this intervention. This research focused on achieving several objectives: (1) identifying specific art therapeutic elements contributing to positive outcomes for children and adolescents, (2) developing and evaluating an instrument to measure the most relevant therapeutic actions of the ArAT program to assess treatment integrity, (3) examining the practical implementation of its theoretical phases, (4) gaining insight into treatment integrity, participant satisfaction, and the strengths and areas for improvement of the ArAT program, and (5) examining whether psychosocial problems will be reduced among children and adolescents.

Key Findings of This Thesis

A systematic review was performed to investigate the effects of art therapy on psychosocial problems affecting children and adolescents and identify the specific components and mechanisms responsible for these effects (Chapter 2). This review showed the positive effects of art therapy for children and adolescents with psychosocial problems. This review focused on identifying which art therapy elements support positive outcomes in addressing psychosocial problems in children and adolescents. The results indicated that art therapy (AT) interventions are characterized by various materials and techniques, structured approaches such as providing topics or assignments, and the use of language. It was also found that the means of expression and therapist behavior are applied flexibly. Therefore, this review emphasized the general feature of AT, which is to adapt to the children's and adolescents' individual needs, known as responsiveness. This responsiveness underscores the meaningfulness of a diverse range of expressive and creative means and therapist behaviors in reaching positive outcomes.

In the second study (Chapter 3), we identified therapeutic actions aligned with ArAT's theoretical framework and developed a tool to measure them. Initially, a draft item list comprising 83 items was created. This list was condensed to 15 items through three refinement phases, with 12 items meeting reliability criteria. This tool facilitated a more systematic evaluation of these actions in the third study (Chapter 4) and the fifth study (Chapter 6), laying the groundwork for future research.

In the third study (Chapter 4), we used this tool in clinical contexts, revealing a preference of art therapists for using tension- and attention-regulation actions throughout all phases of treatment and highlighting stress reduction's pivotal role in ArAT. We could not observe a clear delineation in using different sets of therapeutic actions in each phase of the ArAT. A process evaluation (Chapter 5) showed that all predefined therapeutic actions were observed during therapy sessions. Participants expressed satisfaction with the ArAT program, elucidating the intervention's perceived benefits and barriers. This included insights on participant satisfaction related to

therapist collaboration, conducive therapy conditions, and the meaningful impact of parental involvement alongside barriers such as misaligned goals and logistical challenges. Finally, the multiple case study (Chapter 6) highlighted ArAT's positive effect on reducing psychosocial problems in qualitative and quantitative analyses for 18 children and adolescents. Positive effects were observed not only on psychosocial problems but also across various other domains, including self-regulation, self-awareness, self-esteem, resilience, and flexibility.

Does ArAT Work?

Combining narrative insights from a systematic review with observational studies, a process evaluation, and a multiple systemic case study, we can address whether ArAT may work in addressing psychosocial problems. The diverse methodological designs used in this thesis served as a foundation for showing the positive effects of the ArAT program, providing insights into its impact on psychosocial issues and nuanced application in real-world scenarios (Perlesz & Lindsay, 2003).

In the systematic review (Chapter 2), we found that, in general, art therapy treatments for children and adolescents utilize a broad spectrum of art materials, which can lead to improvements in various domains, including internalizing, externalizing, and social problems. Positive effects were observed across a variety of problems and diagnoses, including anxiety, PTSD (Post-Traumatic Stress Disorder), anger, and disruptive behavior. Furthermore, improvements were noted in social functioning and peer interaction.

These positive outcomes were also seen in the findings of our multiple case study (Chapter 6). We found that ArAT reduces symptoms of internalizing problems, such as anxiety and depressive feelings. It also showed the effects of ArAT in addressing externalizing behaviors such as hyperactivity and fits of rage. Furthermore, children and adolescents showed progress in social behaviors, such as making friends and being able to participate in group meetings. Quantitative analysis revealed that a stabilization or a decrease in the severity of problems was observed.

The exploration in this thesis into the ArAT program reveals that this program demonstrated positive effects across a broad spectrum of psychosocial domains, positioning it as a valuable therapeutic approach adept at meeting the complex needs of children and adolescents through expressive and creative means in a therapeutic context. Moreover, this thesis demonstrates that ArAT facilitates broad psychosocial improvements and induces specific changes directly relevant to the individual's self-identified problems.

Other Outcomes

In addition to the positive effects on psychosocial problems, art therapy was also beneficial for other outcomes. In the systematic review (Chapter 2), we found that art therapy can enhance self-esteem/self-concept, self-awareness, and self-approval, as evidenced by quantitative data before and after treatment. These findings were further

supported by clinical notes by children's therapist on these concepts (D'Amico & Lalonde, 2017). Moreover, enhanced resilience (Sitzer & Stockwell, 2015), improved self-image, and self-reflection were quantitively reported and qualitatively substantiated (D'Amico & Lalonde, 2017) in the included review study.

Our multiple case study also showed these beneficial effects on other outcomes. In addition to the positive effects on psychosocial problems defined by the SDQ, interviews with participants revealed a range of additional positive outcomes, including enhanced self-awareness, improved self-image, increased self-esteem, greater resilience, and enhanced flexibility (Chapter 6). These outcomes are consistent with the systematic review findings and existing research demonstrating that positive changes in self-esteem and self-awareness often accompany reductions in psychosocial problems (Gomez et al., 2018; Mertens et al., 2022). Moreover, the observed improvements in resilience and flexibility align with findings that art therapy interventions bolster self-confidence and coping skills, which are crucial for navigating life's challenges (Cohen-Yatziv & Regev, 2019; King & Kaimal, 2019; Van Lith et al., 2012).

Interestingly, the results of our studies showed effects on emotion regulation or aspects thereof. In the systematic review (Chapter 2), positive qualitative results were observed regarding coping and stress regulation, alongside increased emotional expression, and understanding, as reported by teachers (Ramirez, 2013). Furthermore, children were found to be more capable of expressing their ideas, thoughts, and feelings, as observed, and noted in their clinical journals by therapists (D'Amico & Lalonde, 2017). Moreover, one study in our review showed explicit significant improvement in emotion regulation (Steiert, 2015).

In our multiple case study, participants reported changes relating to enhanced stress coping, increased responsiveness, improved emotional expression and understanding, and more effective help-seeking behaviors. These outcomes are known to be pivotal for emotion regulation. Deficits in emotion regulation are considered an essential factor and promising treatment target in a broad range of psychosocial problems (Berking & Wupperman, 2012). These additional results regarding the effects of ArAT emphasize the value of qualitative research alongside standardized instruments for identifying a broader range of outcomes (Compas et al., 2014).

Although positive outcomes predominate, the review also revealed mixed results, with some studies showing significant effects while others did not. In our study, residual anxiety and increased defiance were observed in some cases (Chapter 6), indicating the ongoing need for support. Additionally, therapy progress occasionally stalled, mainly when children encountered external stressors such as familial problems, leading to no progress in psychosocial problems, as noted in the process evaluation (Chapter 5). Furthermore, the focus on short-term outcomes leaves unanswered questions about the sustainability of the intervention's positive effects. Follow-up assessments at extended intervals are necessary to evaluate the durability of ArAT's impact.

These challenges, however, maintain the broader benefits of ArAT. The outcomes underscore the benefits of art therapy in addressing psychosocial problems and

fostering personal emotional growth and development. This is particularly relevant given the World Health Organization's (WHO) report (2020), indicating that approximately 10-20% of children and adolescents globally face psychosocial challenges. These issues, if unaddressed, heighten the risk of persistent mental health problems into adulthood (Copeland et al., 2015; Schlack et al., 2021). Considering the prevalence and profound implications of psychosocial problems among young populations, acknowledging these issues, and implementing effective interventions is paramount (Colizzi et al., 2020; Radež et al., 2020).

What Does Work? Potential Working Elements

Identifying what works within therapeutic interventions is important for enhancing their effectiveness. The term 'working elements' specifically refers to those components of treatment that directly contribute to positive outcomes (de Witte et al., 2021; Van Yperen et al., 2015). This paragraph discusses the potential working elements of ArAT identified in this thesis, although our methodology did not specifically focus on whether these working elements contribute to positive outcomes. Therefore, further research is necessary to explore these elements in more depth.

The Art materials, Activities, and Art Products

In exploring potential working elements of art therapy for children and adolescents, the systematic review emphasized the pivotal role of art materials within art therapy interventions. The art materials were highlighted for their central role in facilitating expression and exploration, serving as a "safe bridge" for children to express themselves and explore their inner thoughts and emotions (Chapter 2). In our process evaluation, these findings were acknowledged by the parents/caregivers and teachers, who recognized the vital role of the art-making process, materials, and products for the children. Parents and caregivers highlighted the vital role of the materials as an alternative to verbal communication. Furthermore, they discussed the impact and success of various forms of work and assignments, such as creating books, family drawings, and participating in drawing games. The importance of the art product was also frequently emphasized. Children took pride in their creations, and therapists, parents, and teachers observed this pride and how this led to more self-esteem (Chapter 5). Given these observations, it appears that participation in these artistic activities may play a role in reducing psychosocial problems and supporting emotional development, suggesting the art materials, the activities, and the art product as potential working elements in ArAT.

Therapeutic Actions Aimed at Regulating Tension

The emphasis on creating a supportive environment aligns with the core of ArAT's therapeutic process, which lies in the therapist's ability to establish a secure and supportive environment for the child. Therapists achieve this by reducing tension and fostering trust by providing accessible materials and activities, minimizing frustration

and tension, and offering proximity, support, and guidance during therapy sessions. By adopting a calm, friendly, and empathetic demeanor, therapists aim to help the child feel safe and supported (Nieuwenhuis et al., 2020).

Our observational studies revealed that therapeutic actions aimed at regulating tension were performed most frequently, followed by those aimed at regulating attention, with affect-regulating therapeutic actions being the least frequently performed (Chapters 3 and 4). It was observed that therapists consistently apply tension-regulating actions throughout the entire therapy process (Chapters 3 and 4). Therefore, constant regulation of a child's stress appears to be important in their emotional development through art therapy (Thompson, 2014). In our multiple case study, therapists frequently observed increased relaxation in the therapy room. Increased relaxation at home and school was observed in children, and while these children demonstrated improved self-soothing, some also continued to struggle with relaxation (Chapter 6). This variability in stress reduction may highlight the complexity of developing stress regulation skills, often influenced by individual differences in temperament, previous trauma, or ongoing environmental stressors (Hamoudi et al., 2014; Murray et al., 2014).

Therapeutic Actions Aimed at Regulating Attention

Moreover, ArAT therapists employ various therapeutic actions to regulate the child's attention, such as encouraging the child to collaborate, sharing sensory experiences, exploring surroundings and materials, distinguishing between pleasant and unpleasant sensations, and beginning to make choices. These are identified and described in the checklist (Chapter 3) and aim to direct the child's attention to the present moment, ensure active participation, sustain interest, express engagement, and promote increased awareness. By focusing on regulating attention, therapists try to facilitate the child's ability to fully engage in the therapeutic process (Nieuwenhuis et al., 2020).

Found in the observational studies (Chapters 3 and 4), therapists frequently use therapeutic actions from the attention-regulation phase next to tension-regulating actions during all phases of treatment. Attention-regulation actions were frequently applied following tension-regulating actions in each single treatment phase. Interestingly, in our multiple case study, teachers and parents/caregivers reported enhanced and improved task focus and attention (Chapter 6). This improvement in attention may suggest that attention-regulating therapeutic actions reinforce the children's ability to manage and direct their focus, leading to better educational and social outcomes. This has been confirmed by teachers and parents/caregivers, with better school performance mentioned in the interviews and improved social outcomes as indicated by the SDQ findings from the multiple case study (Chapter 6).

Therapeutic Actions Aimed at Distinguishing Emotions and Verbally/Non-verbally Expressing Feelings

ArAT therapists employ therapeutic actions emphasizing distinguishing emotions, verbally and non-verbally expressing feelings, encouraging symbolic work, and

exploring experiences, as detailed in the checklist (Chapter 3). In the multiple case study, participants mentioned in the interviews that children were better able to verbally and non-verbally express feelings and emotions and pose questions (Chapter 6). Also, children were more comfortable discussing likes and dislikes, articulating feelings, and sharing personal experiences (Chapter 6). These therapeutic actions, as outlined in the affect-regulating phase of the checklist (Chapter 3), can be potential working elements. The observed results underscore these practices' effects and suggest a need for further research to explore their application and impact.

Therapeutic Actions Aimed at Creating a Dynamic Interaction Pattern

Furthermore, in ArAT, art materials, techniques, and therapist attitudes are utilized to emphasize interactive regulation through verbal and non-verbal cues such as posture, facial expression, and voice modulation (Chapter 3). Therapists employ therapeutic actions such as mirroring the child's behavior, focusing non-verbally on what is visible, and emphasizing experiences to enhance engagement through body posture and movement. Additionally, they highlight the intensity of emotions to draw attention to their impact. They respond with sounds like "oh" and "aah" or exclamations to share in activities without expecting a response.

Therapists and children/adolescents collaborate to navigate emotional states in this setting, fostering trust and mutual understanding. This guidance is presumed to enhance affect- and emotion regulation and eventually improve self-regulating skills (Nieuwenhuis et al., 2020). The process evaluation (Chapter 5) found that parents/caregivers and teachers acknowledged the value of this approach in creating an environment conducive to emotional exploration and expression. The effect study (Chapter 6) demonstrated a positive impact on psychosocial problems and tangible benefits in coping with stress and enhancing emotional literacy. These findings underscore the critical role of this therapeutic approach in ArAT.

Therapeutic Actions Aimed at Fostering a Responsive Attitude and Strengthening the Alliance

Additionally, in the systematic review, non-directive therapist behavior, characterized by the therapist following and facilitating, alongside eclectic therapist behavior, demonstrated the most significant effects for addressing internalizing and externalizing problems (Chapter 2). Directive therapist behavior also proved effective for externalizing problems in all studies. Corresponding between the studies that showed positive results was the adaptation of the materials/techniques, forms of structure, and therapist behavior to the problems and needs of the children and adolescents involved. This process is called responsiveness. Responsiveness consists of interacting in a way such that the other is understood, valued, and supported in fulfilling important personal needs and goals. It can be seen as a moment-by-moment process of the therapeutic alliance between therapist and client (Sousa et al., 2011).

This responsiveness, also observed in our observational studies (Chapters 3 and 4), emphasizes the importance of the therapeutic alliance in ArAT. Through these therapeutic actions, therapists may assist children in comprehending and managing their emotions, behavior, and thoughts with a responsive and eclectic therapeutic attitude. This alliance and responsive attitude were highly valued by parents, caregivers, teachers, and therapists (Chapter 5) and seemed essential for achieving positive effects. This shows the value of the therapeutic alliance and the eclectic therapeutic approach as potential working elements within ArAT.

Interdisciplinary Collaboration

Furthermore, interdisciplinary collaboration emerges as a potential working element in art therapy interventions for children and adolescents. Our narrative systematic review (Chapter 2) identified diverse models of successful collaboration, ranging from direct participation of parents in therapy sessions to interdisciplinary coordination across sectors such as education, social care, and healthcare. It was demonstrated that their involvement, whether directly in therapy sessions or indirectly through psychoeducation and support, enhanced therapeutic outcomes (Haine-Schlagel & Walsh, 2015; Klatte et al., 2023). In our process evaluation, parents directly involved in therapy reported benefits in guiding and supporting their children through this collaboration. Therapists, recognizing the importance of the active participation of parents/caregivers in therapy sessions, emphasized the impact of their involvement. Including parents was seen as contributing to positive changes. Both therapists and the parent/caregivers stressed the significance of psychoeducation for the child's success, delivered during consultations and therapy sessions (Chapter 5).

Additionally, our findings, as mentioned by some teachers, highlight the benefits of school involvement in ArAT, enhancing accessibility and providing additional developmental support. This aligns with previous studies that support the integration of (art) therapeutic programs in educational settings (Regev et al., 2015; Harpazi et al., 2020).

This section on working elements has detailed various therapeutic actions and practices that possibly contribute to positive outcomes. Although our methodology does not explicitly focus on verifying the direct contributions of these elements, the observed benefits across multiple studies highlight their importance. Given the complexity of emotional and psychosocial interventions, further research is important to deepen our understanding of how these elements function.

What Does Work? Potential Working Mechanisms

Examining the potential working mechanisms within the ArAT program provides insight into why specific therapeutic actions contribute to its effectiveness in treating psychosocial problems among children and adolescents. Working mechanisms, also known as mechanisms of change, are the processes or sequences of processes that lead to or contribute to a desired effect. These mechanisms explore 'how' and

'why' these processes are effective, delving into the underlying reasons that make an intervention successful (Bool et al., 2019; de Witte et al., 2021). ArAT is acknowledged for its complexity, integrating various components such as using art materials, co-regulation techniques, and promoting mentalization to achieve positive outcomes in emotional and psychological development.

The inherent complexity of ArAT as an intervention is essential, particularly in broader academic discussions on complex interventions. According to Craig et al. (2008, 2013), complex interventions are characterized by integrating multiple components, which can interact in various ways to produce outcomes. This multi-faceted nature poses challenges in identifying and understanding the specific mechanisms of action within ArAT. The integration of diverse elements—from the therapeutic use of artmaking and the therapeutic relationship to the interpretative dialogue around the artwork—makes it difficult to isolate and evaluate the individual contribution of each component. Thus, while the current study sheds light on the potential benefits and therapeutic elements of ArAT, caution must be exercised when interpreting these findings in light of working mechanisms. The studies in this thesis were not explicitly designed to measure these intricate mechanisms, highlighting the need for further research.

To better understand the potential working mechanisms of ArAT, we explored the elements of the ArAT program with an overview of six categories of working mechanisms as a basis for further theoretical and empirical exploration (Van Hooren et al., 2021). These categories are Arousal Regulation, Process of Body Perception/Awareness, Process of Expression/Creativity/Flexibility, Affect- and Emotion Regulation, Regulation of Higher-order Cognitive Processes, and Regulation of Social Cognition.

Arousal Regulation

ArAT aims to regulate arousal at its core, which is evident in its focus on tension reduction and modulation of arousal through art materials and techniques. By reducing tension and fostering trust by providing accessible materials and activities and offering proximity, support, and guidance during therapy sessions, the intervention supports participants in managing their arousal levels effectively, as shown in positive results on increased relaxation and improved self-soothing (Chapter 6).

Process of Body Perception/Awareness

Furthermore, the intervention fosters body awareness and perception, nurturing participants' ability to attune to sensory experiences and enhance bodily consciousness, enhancing focus and attention. By participating in sensory-focused activities, participants may become more aware of their physical sensations and responses, as evidenced by positive outcomes such as improved task focus, attention, and sensory awareness, as discussed in Chapter Six.

Process of Expression/Creativity/Flexibility

Creativity, expression, and flexibility are encouraged through the flexible utilization of art materials, fostering a space for participants to explore and express themselves freely. This emphasis on creative expression allows individuals to connect with their inner experiences and externalize their emotions in a supportive environment. This recognition was affirmed by parents/caregivers and therapists, as detailed in the process evaluation (Chapter 5).

Affect- and Emotion-Regulation

Central to the intervention is the development of affect and emotion regulation processes, empowering children, and adolescents to recognize, understand, and articulate their emotions effectively. By employing all the therapeutic actions documented in the checklist, children and adolescents learn to identify and manage their emotional responses, leading to increased emotional resilience and well-being (Chapter 6).

Regulation of Higher-order Cognitive Processes, such as Executive Functions

While the primary emphasis lies on emotional and sensory regulation, the therapeutic activities, as indicated by the interviews in the multiple case study, have been shown to also contribute to the development of higher-order cognitive processes, such as attention and executive functions, thereby improving learning performance for some children (Chapter 6). Moreover, the developers of the ArAT place a strong emphasis on mentalization, promoting the development of participants' ability to reflect on their own and others' mental states, fostering insight and self-awareness (Nieuwenhuis, 2020). Mentalization involves the capacity to understand the mental states of oneself and others, reflecting higher-order cognitive processing. Our multiple case study found that positive outcomes were observed for nine children, demonstrating better self-awareness (Chapter 6).

Regulation of Social Cognition

Furthermore, ArAT has been shown to contribute to regulating social cognition, which is understood as the conscious or unconscious cognitive processes involved in understanding social situations, forming an essential basis for adequate social functioning (Frith & Frith, 2007). ArAT has been shown to influence social cognition by fostering therapeutic relationships, promoting mutual understanding, and enhancing social skills. As quantitative and qualitative data showed, children demonstrated increased social contact, conversation, and interaction with peers and adults in various settings (Chapter 6).

The ArAT program seems to operate across multiple levels of regulatory processes, addressing emotional, sensory, cognitive, and social domains to facilitate therapeutic outcomes for children and adolescents. These working mechanisms align with a bottom-up approach, emphasizing the importance of concrete experiences. In this approach, the starting point is not cognition, as in the top-down approach, but rather basic

processes such as bodily arousal, bodily awareness, and sensory perception. From these fundamental processes, it is considered that influence can be exerted on higher-order processes, such as cognition. Action- and experience-oriented work is prioritized over the verbal expression of thoughts and feelings. Therapeutic methods shift participants' focus from "thinking about" to experiencing directly in the present moment. This approach is particularly beneficial for patients who struggle to articulate their thoughts and feelings, as experiencing the present moment can serve as the initial point of exploration and intervention (Van Hooren et al., 2021).

These potential working mechanisms of art therapy are consistent with ArAT's theoretical principles, which suggest affect regulation as a foundational aspect for more complex forms of emotion regulation and the development of self-regulation skills (Fonagy & Target, 2006).

Methodological Considerations

To study whether ArAT had a positive influence on the psychosocial problems of children and adolescents, we conducted a multiple case study design motivated by the clinical research phase the intervention was in. ArAT was first developed from clinical practice and illustrated with anecdotal case studies by art therapists who treated children with psychosocial problems. At this time, the intervention has not yet been studied in a structured way. Because the studies in this thesis were the first to evaluate ArAT, a multiple single-case research design was chosen to identify a therapeutic effect. A multiple single-case design has the advantage that each participant can be studied intensively by collecting detailed qualitative and quantitative information (Spreen, 2009). Including participants with a diversity of contextual factors offered a realistic picture of how this therapy was conducted in practice and highlighted the variety among children and adolescents referred to ArAT. Applying multiple case studies gave us the possibility to collect information per participant about alternative explanations.

The level of detail of the qualitative data of included participants, along with a diversity of contextual factors, offers a realistic picture of the potential effects of the ArAT. However, external factors may have influenced the results of the multiple case study (Chapter 6), which could have had an impact on the interpretation of results (Hammerton & Munafò, 2021). In this thesis, a diversity of contextual factors such as home situations, cultural differences, environmental influences, and changes in family dynamics may have influenced the outcomes of the intervention (Chapters 5 and 6).

Furthermore, it was essential to consider the developmental trajectories of children and adolescents. A developmental trajectory refers to the pattern of physical, emotional, cognitive, and social development that individuals undergo throughout their growth and maturation (Broidy et al., 2003). The non-linear nature of developmental and therapeutic progress adds complexity to measuring and understanding outcomes (Hawes & Dadds, 2021), but it also underscores the importance of considering each child's unique context and story in this study. By using a single-case design, each child could be intensively

observed regarding outcomes that may be relevant when examining the potential effects of the ArAT (Chapters 5 and 6). Although the direct attribution of effects to the intervention was complicated, the design enabled more nuanced and context-specific conclusions per child to be drawn (Kazdin, 2011).

From a statistical point of view, an obvious methodological consideration is the relatively small participant group. As argued, due to the phase in the clinical research process, generalizability of the effects was not the primary focus. The analyses of all children, parents, teachers, and therapists must be understood from this perspective. Although the design does not allow inferences to other populations, it provided valuable qualitative data and in-depth exploration into this small participant group (Chapters 5 and 6).

A methodological consideration in any intervention study is the selection procedure of participants and therapists. The selection procedure used in this study (Chapter 6) may have selected therapists who favored ArAT and have chosen children and adolescents who were most likely to benefit from their therapy. This potential selectivity bias could impact the interpretation of results, as it suggests that only children who were perceived to be more likely to succeed were included (Martínez-Mesa et al., 2016). Overall, therapists were quantitatively mostly positive about the effects of ArAT, which could point to socially desirable behavior. Furthermore, some therapists treated more children than others, which could lead to therapist-specific effects influencing the interpretation of outcomes on the group level. Although it was complex to disentangle these selection problems from the interviews, there was no reason to assume that these selection effects were present.

In spite of the methodological considerations, we need to take into account, the methodological strengths of our study design lie in its practical relevance and detailed exploration of therapeutic outcomes. These aspects gave insight into identifying the possible effectiveness of ArAT on a larger scale. In our view, a practical orientation was crucial because it reflected the real-world application of ArAT in therapeutic settings. The information from this multiple case study may provide actionable insights and evidence-based guidance to art therapists, healthcare professionals, and researchers involved in psychosocial care for children and adolescents. Additionally, the applied design involved included the network of participants in the treatment process, which may enhance therapeutic outcomes through strong collaboration with clinical practice and foster greater involvement from the participants' support networks (Spreen, 2009). The applied methodology in this thesis is the first step to gaining scientific knowledge about the effectiveness of ArAT in a more structured way. Future studies must validate and expand upon these findings, ensuring a comprehensive understanding of ArAT's impact and potential (Wight et al., 2015).

Implications and Recommendations

Research Implications

Although this thesis provides valuable insights and promising results for a diverse group of children and adolescents, further research to generalize these first results is necessary. In this thesis, the outcome variable was broadly defined, i.e., psychosocial problems. Because of the various diagnoses and psychosocial problems present in the sample of children and adolescents in this study, it is harder to determine who ArAT aids predominantly. Therefore, future studies may focus on "classes" of specific psychosocial problems to identify which problems and, thus, children benefit the most from ArAT. This can help in tailoring the intervention even more to the needs of specific subgroups. As a first step, we recommend starting with adolescents since we found that most dropouts were adolescents (Chapter 6). Tailoring ArAT to better meet the needs of adolescents is an essential step to make the ArAT program appropriate for this group.

This study had a restricted time period to assess the long-term effects of ArAT. Studying long-term effects of ArAT is important for understanding its sustained impact, especially on the developmental trajectories of children and adolescents. By examining these long-term effects, one can determine how ArAT influences developmental pathways over time. Longitudinal studies will clarify both the immediate and developmental implications of ArAT (Hill et al., 2015). This understanding is necessary to tailor interventions to promote optimal development and identify the most effective therapeutic strategies for different developmental stages.

To show the effects of ArAT in a rigorous manner will be attainable by conducting randomized controlled trials (RCT). However, RCTs are known to have many practical challenges, such as the need for large sample sizes, high costs, and ethical concerns about withholding treatment from control groups (Djurisic et al., 2017). Another problem is that effects observed in very strict experimental conditions could be different in daily practice. Because ArAT is developed by and in practice, applying Single-Case Experimental Designs (SCED) can offer a robust framework for personalized interventions such as ArAT. SCED allows for detailed examination of individual responses to therapy, considering unique contexts and developmental trajectories, thereby improving our understanding of how external variables influence treatment outcomes (Kazdin, 2020).

To better understand working elements and mechanisms, studies on the integration of other theoretical frameworks, including neuropsychological perspectives, will enhance our comprehension of the relationship between affect- and emotion-regulation processes and self-regulation skills and terminology in the context of ArAT (Grant & Osanloo, 2014). This integration can elucidate how ArAT influences the psychosocial development of children and adolescents. Furthermore, employing specialized measurement tools to assess these processes and skills will provide insight into working elements and mechanisms, allowing for a more detailed analysis of treatment outcomes and helping identify individuals who most likely benefit from such interventions (Klatte et al., 2023).

ArAT is an art therapeutic intervention. Comparing ArAT with other experiential therapies, such as drama, music, and play therapy, can identify the unique contributions and shared therapeutic actions and principles of these approaches in improving psychosocial outcomes. This comparison would contribute to a broader understanding of how experiential interventions work. For instance, this thesis highlights the predominant use of tension-regulating therapeutic actions in treating children and adolescents with psychosocial problems. Further research is needed to explore whether similar therapeutic actions are observed predominantly in other disciplines of experiential therapies and whether these actions contribute specifically to the beneficial effects of ArAT. Understanding these elements can extend the applicability of ArAT principles to other art therapeutic disciplines and theoretical frameworks, thereby enhancing the overall landscape of art therapeutic interventions for children and adolescents with psychosocial problems.

Clinical Practice Implications

Based on the findings of this thesis, several implications for clinical practice can be identified. First and foremost, ArAT necessitates specialized training for art therapists to ensure quality (Kilbourne et al., 2007). ArAT already benefits from training programs and peer review groups, which are instrumental in maintaining high standards of practice. Regular follow-up training sessions are essential for art therapists to stay updated on the latest developments, techniques, and research findings related to ArAT (Frank et al., 2020). Integrating the most recent findings from ongoing research in these training sessions is important to refine and enhance therapeutic practices continually. For instance, this thesis (Chapters 3 and 4) found the importance of tension-regulating therapeutic actions for children and adolescents with psychosocial problems undergoing therapy. Furthermore, according to the participants, the therapy goals were only sometimes clear (Chapter 5). Aligning therapy goals with participants' expectations promotes treatment adherence and facilitates a client-centered approach to intervention, ultimately leading to more positive clinical outcomes (Hansen et al., 2021; Schaverien, 2015). These are important findings that can directly influence practice if implemented.

At this moment, ArAT is offered in paid training courses. Ensuring that renewed ArAT training, revised manuals, and supervision are available in these paid courses for professionals in practice is imperative. Additionally, it is important to integrate these resources into bachelor courses in art therapy, with opportunities for advanced specialization beyond that. This approach would facilitate the implementation of ArAT in clinical practice and ensure that future art therapists have the necessary skills to deliver effective interventions for children and adolescents with psychosocial problems.

Moreover, integrating theory and practice is vital for the effectiveness of ArAT. During this thesis, a notable gap was observed between the theoretical framework underpinning ArAT and empirical findings from the broader field of science concerning critical concepts such as affect regulation, emotion regulation, and self-regulation. This discrepancy highlights the essential need for a closer integration of theory and practice within the

realm of ArAT. By grounding theoretical models more firmly in empirical evidence, the field can enhance the validity and applicability of its conceptual underpinnings, strengthening its contribution to art therapy and psychosocial interventions. Additionally, ensuring that theoretical constructs are aligned with empirical research findings can facilitate a smoother transition of theory into practice, guided by evidence-based principles. Such an approach is essential for advancing the efficacy and effectiveness of the ArAT program (Adom et al., 2018).

Ultimately, this thesis highlights the potential of the ArAT program as an alternative intervention for addressing psychosocial problems through creative expression and emotional self-exploration. Therefore, it is important to consider the recognition of the ArAT program and the necessary steps to achieve it. Inclusion in guidelines for ArAT is important, as it can lead to more children and adolescents benefiting from this experiential art therapy program. Formal recognition of ArAT in guidelines can increase awareness among healthcare professionals, promote its integration into standard practice, and facilitate access for children and adolescents with psychosocial problems. Moreover, recognition can enhance funding opportunities, support training initiatives, and ensure quality assurance measures are in place (Databank Effectieve Sociale Interventies, n.d.). Therefore, efforts should be made to advocate for including ArAT in clinical guidelines and to establish the necessary infrastructure to support its implementation further. Building upon the groundwork laid by the ArAT founders, this study contributes to the ongoing development and refinement of ArAT practices. It reinforces its position as a valuable intervention in addressing psychosocial issues among children and adolescents.

Conclusions

This thesis evaluated ArAT as a potential intervention for children and adolescents with psychosocial problems. Through multiple studies, this research has shown ArAT's promise in reducing psychosocial problems for children and adolescents with internalizing, externalizing, and/or social problems. Furthermore, findings suggest that ArAT can influence other outcomes such as coping, emotional expression, self-esteem, and mentalization, which may improve overall functioning in the daily lives of children and adolescents. This research offers a foundation for researchers and policymakers to explore and integrate ArAT into broader psychosocial intervention strategies. It underscores the value of ArAT as an effective intervention for children and adolescents facing psychosocial problems, emphasizing the need for further research and development in this area. Integrating ArAT into clinical guidelines can expand access to this experiential art therapy program.

SUMMARY

Psychosocial problems in children and adolescents are becoming increasingly prominent and concerning on a global scale. These problems, which can be classified as emotional, behavioral, and social, negatively influence the everyday functioning of the child or adolescent and often persist into adulthood. The worldwide incidence of psychosocial problems in children and adolescents is high, ranging from 6.7% to 13.4%, and represents a substantial public health issue.

The Affect regulating Arts Therapies (ArAT) program presents a promising intervention aimed at improving affect regulation and thereby reducing psychosocial problems in children and adolescents. However, the effectiveness of the ArAT program has not yet been studied. This thesis evaluated the ArAT program on perceived effects on psychosocial problems, seeking to contribute to the understanding of art therapy's role in reducing the psychosocial problems of children and adolescents.

To evaluate the effectiveness of the ArAT program, a series of studies was undertaken. These studies aim to explore ArAT's impact within the context of youth care and mental healthcare in the Netherlands, marking the first empirical evaluation of ArAT as a therapeutic intervention derived from clinical practice. This research aimed to achieve several objectives: (1) identifying specific art therapeutic elements contributing to positive psychosocial outcomes for children and adolescents, (2) developing and evaluating an instrument to measure the most relevant therapeutic actions of the ArAT program to assess treatment integrity, (3) examining the practical implementation of its theoretical phases, (4) gaining insight into treatment integrity, participant satisfaction, and the strengths and areas for improvement of the ArAT program, and (5) examining whether psychosocial problems decrease among children and adolescents who received ArAT.

State of the Art: Art Therapy for Children and Adolescents with Psychosocial Problems

To gain insight into the current state of art therapy for treating psychosocial problems among children and adolescents, a systematic narrative review is conducted, as described in Chapter 2. Fourteen databases and four electronic journals were systematically searched. Thirty-seven studies out of 1,299 studies met the inclusion criteria. This concerned 16 randomized controlled trials, eight controlled trials, and 13 single-group pre-post design studies. The results showed that art therapy (AT) interventions for children and adolescents are characterized by a variety of materials and techniques, forms of structure such as giving topics or assignments, and the use of language. Three forms of therapist behavior were observed: non-directive, directive, and eclectic. All three forms of therapist behavior, in combination with a variety of means and forms of expression, showed effects on psychosocial problems. The wide variety of materials,

techniques, and assignments that are used in AT shows that AT is applied flexibly and is responsive to individual cases in their treatment.
This is in line with the concept that art therapists can attune to the client's possibilities and needs with art materials/techniques. Nonetheless, the specific execution and content of art therapeutic interventions often remained ambiguous. This highlights the need for further specification of art therapeutic interventions and research into the working elements of art therapy and how they contribute to observed positive outcomes.

Advancing ArAT: Developing and Evaluating a Measurement Tool

In Chapter 3, we focused on the development and assessment of a checklist designed specifically to examine the application of therapeutic actions within ArAT sessions. This phase of the study aimed to bridge the gap between theoretical constructs and practical therapeutic actions within the practice of ArAT. The checklist is meant to capture the therapeutic actions of three therapeutic phases considered important within the ArAT framework: the tension-regulation phase, the attention-regulation phase, and the affect-regulation phase. The development process involved a review of existing literature, expert consultations, and iterative feedback loops using film clips from ArAT practice to ensure the tool's validity and applicability. The initial draft list consisted of 83 items, which underwent a refinement process across three study rounds. Each round included evaluations of item relevance, clarity, and consistency, using both qualitative and quantitative analyses. As a result, the list was systematically reduced to 15 items, with twelve of these items meeting the standard reliability criteria. By providing a reliable means to check whether the appropriate therapeutic actions per treatment phase were applied, this tool may enhance the accuracy of monitoring therapy processes. From there, it may contribute to a more nuanced understanding of therapy outcomes and areas for improvement.

In Chapter 4 of this thesis, we examined whether the theoretical phases of ArAT_ tension- regulation, attention-regulation, and affect-regulation_were observable in real-life ArAT sessions. Film recordings of ArAT sessions were collected. These recordings were viewed and rated using the checklist developed in Chapter 3 to determine whether the therapeutic actions were present. The findings showed that ArAT therapists do not appear to implement the therapeutic actions as expected. Instead, tension-regulating therapeutic actions and, to a lesser degree, attention- regulating therapeutic actions seem to predominate during all phases of treatment. In all phases, tension-regulation actions were most frequently applied, followed by attention-regulating actions, and affect-regulating actions were the least used. Therapists often adapt the progression of phases to meet the needs of the child or adolescent, sometimes revisiting earlier phases to reinforce skills or address emerging challenges. This approach revealed a preference for employing tension- and attention-regulation actions throughout all treatment phases, underscoring the important role of stress reduction in treating psychosocial problems. This study showed the important role of the therapist's adaptability in navigating through the three phases.

Evaluating Implementation and Impact: a Process Evaluation of ArAT

In the fifth chapter of this thesis, a process evaluation of the ArAT program is described. This process evaluation focused on its implementation fidelity, participant satisfaction, and the clarification of both benefits and barriers encountered in practice. This study aimed to assess the extent to which ArAT was executed as planned, identifying elements that contributed to its success and areas where adjustments could enhance its effects and accessibility.

Data collection methods included semi-structured interviews, satisfaction surveys, and observational analyses of therapy sessions, ensuring a comprehensive view of the program's implementation and its impact on participants. Treatment integrity was investigated by observing therapeutic actions during recorded sessions applied in practice. Satisfaction was evaluated using a survey, while perceived benefits and barriers were examined through semi-structured interviews. Surveys and interviews were conducted with children and adolescents who participated in the ArAT sessions, their parents/caregivers, teachers/(semi-)professionals, and the art therapists who facilitated the program.

The results showed that all predefined therapeutic actions were observed during therapy sessions, and participants expressed their satisfaction with and understanding of therapists. The identified benefits of the program included acknowledgment of the child/adolescent, non-verbal work, and the creation of art products. Collaboration, favorable therapy conditions, parental involvement, psychoeducation, and the therapist's attitude also contributed to success. However, the process evaluation also showed several challenges and barriers to optimal implementation. Logistical issues, such as scheduling conflicts and the sometimes-long distance to the therapy location, were noted as obstacles that occasionally hindered participation. Additionally, a misalignment of therapy goals between therapists and caregivers occasionally emerged.

Overall, the findings affirm ArAT as a promising strategy for addressing psychosocial problems among children and adolescents and provide valuable insights into the practical aspects of implementing a complex intervention like ArAT, offering guidance for future program enhancements. By identifying the strengths of the ArAT program and addressing its barriers, this study contributes to refining ArAT practices, ensuring that they remain responsive, effective, and accessible to children and adolescents facing psychosocial problems.

Evaluating the Impact: ArAT and Psychosocial Problems

In Chapter 6 of this thesis, we evaluated the effects of the ArAT program on addressing psychosocial problems among children and adolescents. A systemic multiple-case study design was used. Participants consisted of a diverse sample of 18 children and adolescents, as well as their parents/caregivers, teachers, and other (semi)-professionals who acted as observers, including the therapists. Participants were asked to fill out the Strength and Difficulties Questionnaire (SDQ) at baseline (one to four weeks prior to the intervention), mid-intervention (at ten weeks), post-intervention (at 20 weeks), and follow-up (after six weeks). Furthermore, after each therapy session, all participants

were asked to fill out a personalized problem list, targeting the seven most problematic behaviors identified during the initial assessment. After the intervention period, semi-structured interviews were conducted with children and adolescents, their families, teachers, and therapists.

Analyzing the SDQ scores filled out by parents, teachers, other semiprofessionals, and therapists showed improvements in children's psychosocial problems during or after the intervention. No differences over time were seen when analyzing the SDQ score of the children/adolescents. However, only seven of the respondents filled out the questionnaire. Analyzing the personalized problem list showed that changes -that were meaningful according to NAP values- were all reductions in personal psychosocial problems. Regarding agreement between participants per case, there was unanimous agreement among nine children of the total cohort (50%), with all participants acknowledging a decline in personal problems.

Qualitative data provided further insight into the experiences of clients, their families, teachers/(semi) professionals, and therapists. Positive outcomes related to psychosocial problems were consistent with the quantitative analysis, extending to other areas. These included enhanced stress coping mechanisms, increased responsiveness, improved emotional expression and understanding, and more effective help-seeking behaviors. Furthermore, improved (non-)verbal expression of feelings and emotions, along with enhanced verbal responsiveness and advancements in focus and mentalization abilities, were observed among participants. Parents and caregivers also noted observable improvements in emotional resilience and overall happiness in their children.

In conclusion, the findings of this multiple case study showed the ArAT seems to foster positive changes in psychosocial problem behavior and related areas. This study contributes to the growing body of studies advocating for the inclusion of art therapy within mental health care strategies for children and adolescents, highlighting the need for further research. Future research should focus on replication, homogeneous diagnostic groups, longitudinal assessments, and intervention mechanisms to comprehensively understand effectiveness and sustainability.

Overall

Through a series of methodologically varied studies, this thesis not only addressed the theoretical foundations of ArAT but also deepened our comprehension of its practical execution. The development and validation of a measurement tool, alongside an analysis of ArAT's phased methodology, a process evaluation, and a multiple case study, collectively highlight the positive effects of ArAT. Thereby, this thesis emphasizes the potential of the Affect regulating Arts Therapies program (ArAT) as an innovative approach for addressing psychosocial problems in children and adolescents. It suggests that ArAT could serve as an effective alternative or complement to verbally oriented therapies. This is particularly relevant for individuals with limited verbalization or cognitive abilities. Furthermore, the study underlines the necessity of updating the existing specialized training for therapists to ensure the effectiveness of the ArAT program and advocates for

integrating theoretical frameworks more closely with empirical findings to enhance the therapy's effects. Future research directions call for further exploration of ArAT's long-term effects and its applicability to specific child populations to better understand the sustainability of therapeutic outcomes and to gain more insights into the target groups that benefit most from ArAT. Moreover, investigating the therapy's impact through more rigorous methods, such as Single Case Experimental Design (SCED), can provide stronger evidence of its effectiveness.

To conclude, advocating for the inclusion of ArAT in clinical guidelines is vital to promote its integration into standard practice. Ensuring access to this innovative and promising therapeutic intervention can improve the psychosocial well-being of children and adolescents. This thesis highlights the potential of art therapy and underscores the importance of healthcare professionals, policymakers, and researchers considering and supporting ArAT, thereby contributing to better mental health outcomes for children and adolescents.

SAMENVATTING

De wereldwijde toename van psychosociale problemen onder kinderen en adolescenten is zorgwekkend. Deze problemen, waaronder emotionele, gedragsmatige en sociale uitdagingen, hebben een negatieve invloed op het dagelijks functioneren en kunnen aanhouden tot in de volwassenheid. Met een prevalentie van 6,7% tot 13,4% vormen zij een aanzienlijk gezondheidsprobleem. Affect-regulerende Vaktherapie (ArVT) is een veelbelovende interventie die zich richt op het verbeteren van affectregulatie en daarmee op het verminderen van psychosociale problemen bij kinderen en adolescenten. De effectiviteit van deze ArVT-interventie is echter nog niet onderzocht. Dit proefschrift evalueerde de ArVT-interventie op de ervaren effecten op psychosociale problemen, om zo bij te dragen aan het inzicht in de rol van specifiek beeldende therapie bij het verminderen van deze problemen bij kinderen en adolescenten.

Om de effectiviteit van de ArVT-interventie te onderzoeken, is een reeks studies uitgevoerd. Deze studies richtten zich op de impact van ArVT binnen de jeugdzorg en geestelijke gezondheidszorg in Nederland en vormen de eerste empirische evaluatie van ArVT als therapeutische interventie in de klinische praktijk. Het onderzoek had meerdere doelen: (1) vaststellen welke specifieke elementen van beeldende therapie bijdragen aan positieve psychosociale uitkomsten voor kinderen en jongeren, (2) ontwikkelen en evalueren van een meetinstrument om de belangrijkste therapeutische handelingen van de ArVT-interventie te meten om de behandelintegriteit te waarborgen, (3) onderzoeken van de praktische toepassing van de theoretische fasen, (4) inzicht krijgen in de behandelintegriteit, de tevredenheid van de deelnemers en de sterke- en verbeterpunten van de ArVT-interventie, en (5) bekijken of psychosociale problemen verminderen bij kinderen en jongeren die ArVT ontvangen.

Stand van Zaken: Beeldende therapie voor Kinderen en Jongeren met Psychosociale Problemen

Om meer inzicht te krijgen in de huidige stand van beeldende therapie bij de behandeling van psychosociale problemen bij kinderen en jongeren, is een systematisch narratief literatuuronderzoek uitgevoerd, zoals beschreven in Hoofdstuk 2. Hiervoor zijn veertien databanken en vier elektronische tijdschriften systematisch doorzocht. Van de 1.299 gevonden studies voldeden er 37 aan de inclusiecriteria. Dit betrof 16 gerandomiseerde gecontroleerde onderzoeken, acht gecontroleerde onderzoeken en 13 studies met een enkelvoudig groepsontwerp (pre-post design). Uit de resultaten blijkt dat beeldende therapie voor kinderen en jongeren wordt gekenmerkt door de inzet van een grote variëteit aan materialen en technieken, verschillende vormen van structuur, zoals het geven van thema's of opdrachten, en het gebruik van taal. Er zijn drie vormen van therapeutgedrag waargenomen: niet-directief, directief en eclectisch. Alle drie de vormen van therapeutgedrag, gecombineerd met verschillende middelen en uitingsvormen, lieten positieve effecten zien op psychosociale problemen. De veelzijdigheid aan materialen,

technieken en opdrachten die in beeldende therapie wordt toegepast, toont aan dat deze flexibel kunnen worden toegepast en aangepast aan individuele behandeltrajecten. Dit sluit aan bij het idee dat beeldend therapeuten kunnen inspelen op de mogelijkheden en behoeften van de cliënt met kunstzinnige materialen en technieken. Uit de analyse van het onderzoek bleek echter dat de specifieke inhoud en werkwijze van beeldend therapeutische interventies vaak onduidelijk blijven. Dit benadrukt de noodzaak van verdere specificatie van deze interventies en onderzoek naar de werkzame elementen en hun bijdrage aan positieve behandelresultaten

Ontwikkeling en Evaluatie van een Meetinstrument voor de ArVT-interventie

In Hoofdstuk 3 ligt de focus op de ontwikkeling en beoordeling van een checklist die specifiek is ontworpen om therapeutische handelingen binnen ArVT-sessies te onderzoeken. Deze fase van het onderzoek had tot doel de kloof te overbruggen tussen theoretische concepten en praktische handelingen binnen de ArVT-interventie. De checklist is bedoeld om de therapeutische handelingen in de drie belangrijke fasen van het ArVT-kader vast te leggen: de spanningsregulatiefase, de aandachtsregulatiefase en de affectregulatiefase. Het ontwikkelingsproces omvatte een literatuurstudie, consultaties met experts en iteratieve feedbackrondes, waarbij filmfragmenten uit de ArVT-praktijk werden gebruikt om de validiteit en toepasbaarheid van het instrument te waarborgen.

De eerste conceptlijst bestond uit 83 items, die na drie studieronden werd verfijnd. Tijdens elke ronde werden de relevantie, duidelijkheid en consistentie van de items geëvalueerd door middel van zowel kwalitatieve als kwantitatieve analyses. Hierdoor werd de lijst systematisch teruggebracht tot 15 items, waarvan er 12 voldeden aan de betrouwbaarheidscriteria. Dit instrument maakt het mogelijk beter te monitoren of de beschreven therapeutische handelingen per behandelfase worden toegepast, wat de nauwkeurigheid van het monitoren van therapieprocessen kan verbeteren en een genuanceerder inzicht kan geven in therapie-uitkomsten en mogelijke verbeterpunten.

In Hoofdstuk 4 is onderzocht of de theoretische fasen van de ArVT-interventie – spanningsregulatie, aandacht regulatie en affectregulatie – zichtbaar waren in de praktijk. Filmopnames van ArVT-sessies werden verzameld en beoordeeld met behulp van de checklist uit Hoofdstuk 3. De resultaten lieten zien dat therapeuten binnen de ArVT-interventie de therapeutische handelingen niet altijd uitvoeren zoals verwacht. Spanningsregulatie-handelingen en, in mindere mate, aandacht regulatie-handelingen, domineerden alle behandelfasen. Spanningsregulatie-handelingen werden het vaakst toegepast, gevolgd door aandacht-regulatie-handelingen, terwijl affectregulatie-handelingen het minst werden gebruikt. Therapeuten passen de voortgang van de fasen vaak aan op de behoeften van het kind of de jongere, waarbij ze soms terugkeren naar eerdere fasen om vaardigheden te versterken of nieuwe uitdagingen aan te pakken. Deze aanpak benadrukt het belang van spannings- en aandacht regulatie in alle fasen van de behandeling en toont het belang van de flexibiliteit van de therapeut in het toepassen van de verschillende fasen.

Evaluatie van de Implementatie en Impact: Een Procesevaluatie van de ArVT-interventie.

Hoofdstuk 5 beschrijft de procesevaluatie van de ArVT-interventie, waarin de behandeltrouw, deelnemers tevredenheid, voordelen en obstakels in de praktijk werden onderzocht. Dit onderzoek beoordeelde in hoeverre de interventie volgens plan werd uitgevoerd en welke elementen het succes beïnvloedden, evenals waar aanpassingen de effectiviteit en toegankelijkheid kunnen verbeteren. Gegevens werden verzameld door middel van semigestructureerde interviews, tevredenheidsenquêtes en observatieanalyses van therapiesessies, wat een compleet beeld gaf van zowel de implementatie van het programma als de effecten op de deelnemers. De behandelintegriteit werd onderzocht door therapeutische handelingen in opgenomen sessies te observeren. Tevredenheid werd gemeten via een enquête, terwijl waargenomen voordelen en obstakels werden onderzocht via interviews. Deelnemers aan de ArVT-sessies, hun ouders/verzorgers, leerkrachten/(semi-)professionals en de beeldend therapeuten vulden enquêtes in en namen deel aan de interviews.

Uit de resultaten bleek dat alle vooraf vastgestelde therapeutische handelingen tijdens de therapiesessies werden uitgevoerd en dat de deelnemers tevreden waren over de omgang en het begrip van de therapeuten voor het kind. Voordelen van de interventie waren onder andere erkenning van het kind of de jongere, non-verbaal werken en het creëren van kunstzinnige producten. Daarnaast droegen samenwerking, goede therapieomstandigheden, ouderbetrokkenheid, psycho-educatie en de houding van de therapeut bij aan het succes. Echter, logistieke uitdagingen, zoals planningsproblemen en de soms grote afstand tot de therapielocatie, werden genoemd als obstakels die deelname soms bemoeilijkten. Ook bleek er soms een verschil te zijn tussen de therapiedoelen van de therapeuten en die van de ouders/verzorgers.

Al met al bevestigen de bevindingen dat de ArVT-interventie een veelbelovende strategie is voor het aanpakken van psychosociale problemen bij kinderen en jongeren. Ze geven waardevolle inzichten in de praktische aspecten van het implementeren van een complexe interventie, zoals de hier onderzochte beeldende variant van ArVT, en bieden richtlijnen voor toekomstige verbeteringen. Door zowel de sterke punten als de obstakels van de interventie te identificeren, draagt dit onderzoek bij aan het verfijnen van de ArVT-praktijken, zodat deze effectief en toegankelijk blijven voor kinderen en jongeren met psychosociale problemen.

Evaluatie van het Effect: ArVT en Psychosociale Problemen

In Hoofdstuk 6 zijn de effecten van de ArVT-interventie op het verminderen van psychosociale problemen bij kinderen en adolescenten onderzocht. Hiervoor is een systemisch multiple-case design gebruikt. Aan het onderzoek namen 18 kinderen en adolescenten deel, samen met hun ouders/verzorgers, leerkrachten en andere (semi-)professionals, waaronder de therapeuten. Zij vulden de Strength and Difficulties Questionnaire (SDQ) in op vier momenten: voorafgaand aan de interventie (één tot vier weken ervoor), halverwege (na tien weken), direct na de interventie (na 20 weken) en tijdens de follow-up (zes weken later).

Daarnaast werd de deelnemers na elke therapiesessie gevraagd om een gepersonaliseerde problemenlijst in te vullen, gericht op de zeven meest problematische gedragingen die tijdens de eerste evaluatie waren vastgesteld. Na afloop van de interventie zijn er semigestructureerde interviews afgenomen.

Uit de analyse van de SDQ-scores, ingevuld door ouders, leerkrachten, (semi-) professionals en therapeuten, bleek dat de psychosociale problemen van de kinderen verbeterden tijdens of na de interventie. De SDQ-scores van de kinderen en jongeren zelf lieten echter geen significante veranderingen zien; slechts zeven van hen vulden hierbij de vragenlijst in. De gepersonaliseerde problemenlijsten toonden daarentegen betekenisvolle veranderingen: alle waargenomen veranderingen gaven een afname van psychosociale problemen aan. In negen van de gevallen (50%) was er overeenstemming tussen alle deelnemers over de afname van de problemen.

De kwalitatieve gegevens gaven verder inzicht in de resultaten en ervaringen van cliënten, hun families, leerkrachten/(semi-)professionals en therapeuten. De positieve uitkomsten met betrekking tot psychosociale problemen waren consistent met de kwantitatieve analyse en strekten zich tevens uit tot andere gebieden. Er werd een verbetering gezien in stress-coping mechanismen, emotionele expressie en begrip, hulpzoekend gedrag, en zowel van verbale als non-verbale uitdrukking van gevoelens. Ook merkten ouders en verzorgers op dat hun kinderen emotioneel veerkrachtiger en gelukkiger werden.

Samengevat laat deze systemische multiple-case studie zien dat de ArVT-interventie positieve veranderingen teweeg kan brengen in psychosociaal probleemgedrag en daarmee samenhangende gebieden. Dit onderzoek draagt bij aan de groeiende hoeveelheid studies die pleit voor het opnemen van beeldende therapie in de geestelijke gezondheidszorg voor kinderen en adolescenten en benadrukt de noodzaak van verder onderzoek. Toekomstig onderzoek kan zich richten op replicatie, homogene diagnostische groepen, longitudinale evaluaties en studies naar de interventiemechanismen om de effectiviteit en duurzaamheid van de resultaten beter te begrijpen.

Conclusie

Dit proefschrift heeft door middel van verschillende onderzoeksmethoden niet alleen de theoretische basis van de ArVT-interventie belicht, maar ook ons begrip van de praktische uitvoering ervan verdiept. De ontwikkeling en validatie van een meetinstrument, de analyse van de fasen van de ArVT-interventie, een procesevaluatie en een multiple-case studie tonen gezamenlijk de positieve effecten van deze interventie aan. Hiermee benadrukt dit proefschrift het potentieel van Affect-regulerende Vaktherapie (de beeldende variant) als een innovatieve aanpak voor het aanpakken van psychosociale problemen bij kinderen en jongeren. De ArVT-interventie kan een effectief alternatief of een aanvulling zijn op verbaal gerichte therapieën, vooral voor individuen met beperkte verbale of cognitieve mogelijkheden. De studie benadrukt ook het belang van geactualiseerde gespecialiseerde training voor therapeuten om de effectiviteit van de

interventie te waarborgen en pleit voor een nauwere integratie van theoretische kaders met empirische bevindingen om de effecten van de therapie te versterken.

Voor toekomstig onderzoek wordt aanbevolen om de langetermijneffecten van de ArVT-interventie verder te onderzoeken en de toepasbaarheid ervan bij specifieke groepen kinderen en adolescenten in kaart te brengen, om zo meer inzicht te krijgen in welke doelgroepen het meeste baat hebben bij de therapie. Daarnaast kan het gebruik van grondigere methoden, zoals Single Case Experimental Design (SCED), sterker bewijs leveren voor de effectiviteit van ArVT

Tot slot is het van groot belang om te pleiten voor de opname van de ArVT-interventie in klinische richtlijnen, om zo de integratie in de standaardpraktijk te bevorderen. Toegang tot deze veelbelovende therapie kan het psychosociaal welzijn van kinderen en jongeren aanzienlijk verbeteren. Dit proefschrift benadrukt het potentieel van beeldende therapie en roept zorgverleners, beleidsmakers en onderzoekers op om de ArVT-interventie te overwegen en te ondersteunen, en zo bij te dragen aan betere geestelijke gezondheidsuitkomsten voor kinderen en jongeren.

REFERENCES

Aalbers, S., Spreen, M., Pattiselanno, K., Verboon, P., Vink, A., & van Hooren, S. (2020). Efficacy of emotion-regulating improvisational music therapy to decrease depressive symptoms in young adult students: A multiple-case study design. *The Arts in Psychotherapy, 71*, Article 101720. https://doi.org/10.1016/j.aip.2020.101720

Acri, M., & Hoagwood, K. (2015). Finding common ground: A review of integrated interventions for mental health and pediatric chronic conditions. *Journal of Clinical Child & Adolescent Psychology, 44*(5), 872–886. https://doi.org/10.1080/15374416.2014.971457

Adom, D., Hussein, E. K., & Adu-Agyem, J. (2018). Theoretical and conceptual framework: Mandatory ingredients of a quality research. *International Journal of Scientific Research, 7*(1), 438–441.

Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. N. (2015). *Patterns of attachment*. Taylor & Francis.

Akthar, Z., & Lovell, A. (2018). Art therapy with refugee children: A qualitative study explored through the lens of art therapists and their experiences. *International Journal of Art Therapy, 24*(3), 139–148. https://doi.org/10.1080/17454832.2018.1533571

Aldao, A. (2013). The future of emotion regulation research. *Perspectives on Psychological Science, 8*(2), 155–172. https://doi.org/10.1177/1745691612459518

Aldao, A., Gee, D. G., De Los Reyes, A., & Van Dyk, I. S. (2016). Emotion regulation as a transdiagnostic factor in the development of internalizing and externalizing psychopathology: Current and future directions. *Development and Psychopathology, 28*(4pt1), 927–946. https://doi.org/10.1017/S0954579416000638

Aldao, A., Sheppes, G., & Gross, J. J. (2015). Emotion regulation flexibility. *Cognitive Therapy and Research, 39*(3), 263–278. https://doi.org/10.1007/s10608-014-9662-4

Aldridge, D. (2005). A story told from practice: The reflective inquirer in an ecology of ideas. In D. Aldridge (Ed.), *Case study designs in music therapy* (pp. 9–30). Jessica Kingsley Publishers.

Allen, J. G., & Fonagy, P. (2006). *The handbook of mentalization-based treatment*. Wiley.

Allen, J. G., Fonagy, P., & Bateman, A. W. (2008). *Mentalizing in clinical practice*. American Psychiatric Publishing, Inc.

Allen, P. B. (2008). Commentary on community-based art studios: Underlying principles. *Art Therapy, 25*(1), 11–12. https://doi.org/10.1080/07421656.2008.10129350

Almirall, D., & Chronis-Tuscano, A. (2016). Adaptive interventions in child and adolescent mental health. *Journal of Clinical Child & Adolescent Psychology, 45*(4), 383–395. https://doi.org/10.1080/15374416.2016.1152555

American Art Therapy Association. (2017, December 21). 2017: Facts, figures, and helpful resources from AATA. Retrieved July 11, 2020, from https://multibriefs.com/briefs/aata/review122117.pdf

American Art Therapy Association. (2024, January 17). American Art Therapy Association. https://arttherapy.org/what-is-art-therapy/

American Psychological Association, Presidential Task Force on Evidence-Based Practice. (2006). Evidence-based practice in psychology. *American Psychologist, 61*(4), 271–285. https://doi.org/10.1037/0003-066X.61.4.271

Andrade, C. (2018). Internal, external, and ecological validity in research design, conduct, and evaluation. *Indian Journal of Psychological Medicine, 40*(5), 498–499. https://doi.org/10.4103/ijpsym.ijpsym_334_18

Andriessen, D. (2014). *Praktisch relevant én methodisch grondig? Dimensies van onderzoek in het hbo*. Hogeschool Utrecht.

Arango, C., Díaz-Caneja, C. M., McGorry, P. D., Rapoport, J., Sommer, I. E., Vorstman, J. A., & Carpenter, W. (2018). Preventive strategies for mental health. *The Lancet Psychiatry, 5*(7), 591–604. https://doi.org/10.1016/S2215-0366(18)30057-9

Araos, F. (2018). Navegando en aguas abiertas: Tensiones y agentes en la conservación marina en la Patagonia chilena. *Revista De Estudios Sociales, 64*, 27–41. https://doi.org/10.7440/res64.2018.03

ATLAS.ti Scientific Software Development GmbH. (2022). *ATLAS.ti* (Version 22) [Computer software]. https://atlasti.com/

Avenevoli, S., Swendsen, J., He, J., Burstein, M., & Merikangas, K. R. (2015). Major depression in the National Comorbidity Survey–Adolescent Supplement: Prevalence, correlates, and treatment. *Journal of the American Academy of Child & Adolescent Psychiatry, 54*(1), 37–44.e2. https://doi.org/10.1016/j.jaac.2014.10.010

Barlow, H. D., Nock, M. K., & Hersen, M. (2009). *Single case experimental designs: Strategies for studying behavior change* (3rd ed.). Pearson Education.

Barrett, L. F., & Bliss-Moreau, E. (2009). Affect as a psychological primitive. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 41, pp. 167–218). Academic Press. https://doi.org/10.1016/S0065-2601(08)00404-8

Bartko, J. J., & Carpenter, W. T. (1976). On the methods and theory of reliability. *The Journal of Nervous and Mental Disease, 163*(5), 307–317. https://doi.org/10.1097/00005053-197611000-00003

Bartle-Haring, S., Bryant, A., & Whiting, R. (2022). Therapists' confidence in their theory of change and outcomes. *Journal of Marital and Family Therapy, 48*(4), 1190–1205. https://doi.org/10.1111/jmft.12593

Bat Or, M., & Zilcha-Mano, S. (2018). The Art Therapy Working Alliance Inventory: The development of a measure. *International Journal of Art Therapy, 24*(2), 76–87. https://doi.org/10.1080/17454832.2018.1518989

Bateman, A. W. (2008). *Mentaliseren in de klinische praktijk*. Nieuwezijds.

Bateman, A., & Fonagy, P. (2010). Mentalization-based treatment for borderline personality disorder. *World Psychiatry, 9*(1), 11–15. https://doi.org/10.1002/j.2051-5545.2010.tb00255.x

Bateman, A., & Fonagy, P. (2016). *Mentalization-based treatment for personality disorders*. Oxford University Press.

Bateman, A., O'Connell, J., Lorenzini, N., Gardner, T., & Fonagy, P. (2016). A randomised controlled trial of mentalization-based treatment versus structured clinical management for patients with comorbid borderline personality disorder and antisocial personality disorder. *BMC Psychiatry, 16*(1). https://doi.org/10.1186/s12888-016-1000-9

Baumeister, R. F., Campbell, J. D., Krueger, J. I., & Vohs, K. D. (2003). Does high self-esteem cause better performance, interpersonal success, happiness, or healthier lifestyles? *Psychological Science in the Public Interest, 4*(1), 1–44. https://doi.org/10.1111/1529-1006.01431

Baumeister, R. F., Zell, A. L., & Tice, D. M. (2007). How emotions facilitate and impair self-regulation. In J. J. Gross (Ed.), *Handbook of emotion regulation* (pp. 408–426). Guilford Press.

Bazargan, Y., & Pakdaman, S. (2016). The effectiveness of art therapy on reducing internalizing and externalizing problems of female adolescents. *Archives of Iranian Medicine, 19*(1), 51–56.

Beebe, B., & Lachmann, F. M. (1998). Co-constructing inner and relational processes: Self- and mutual regulation in infant research and adult treatment. *Psychoanalytic Psychology, 15*(4), 480–516. https://doi.org/10.1037/0736-9735.15.4.480

Beh-Pajooh, A., Abdollahi, A., & Hosseinian, S. (2018). The effectiveness of painting therapy program for the treatment of externalizing behaviors in children with intellectual disability. *Vulnerable Children and Youth Studies, 13*(3), 221–227. https://doi.org/10.1080/17450128.2018.1428779

Berberian, M., & Davis, B. (2020). *Art therapy practices for resilient youth: A strengths-based approach to at-promise children and adolescents*. Guilford Press.

Berking, M., & Wupperman, P. (2012). Emotion regulation and mental health. *Current Opinion in Psychiatry, 25*(2), 128–134. https://doi.org/10.1097/YCO.0b013e3283503669

Berking, M., Wirtz, C. M., Svaldi, J., & Hofmann, S. (2014). Emotion regulation predicts symptoms of depression over five years. *Behaviour Research and Therapy, 57*, 13–20. https://doi.org/10.1016/j.brat.2014.03.003

Betts, D. J. (2006). Art therapy assessments and rating instruments: Do they measure up? *The Arts in Psychotherapy, 33*(5), 422–434. https://doi.org/10.1016/j.aip.2006.08.001

Bhosale, S., Singru, S. A., & Khismatrao, D. S. (2015). Study of psychosocial problems among adolescent students in Pune, India. *Ameen Journal of Medical Science, 8*(02). Retrieved from https://journals.indexcopernicus.com/search/article?articleId=372087

Blase, K., & Fixsen, D. (2013). *Core intervention components: Identifying and operationalizing what makes programs work*. U.S. Department of Health and Human Services.

Bo, S., Sharp, C., Fonagy, P., & Kongerslev, M. (2017). Hypermentalizing, attachment, and epistemic trust in adolescent BPD: Clinical illustrations. *Personality Disorders: Theory, Research, and Treatment, 8*(2), 172–182. https://doi.org/10.1037/per0000161

Bondemark, L., & Ruf, S. (2015). Randomized controlled trial: The gold standard or an unobtainable fallacy? *The European Journal of Orthodontics, 37*(5), 457–461. https://doi.org/10.1093/ejo/cjv046

Bool, M., Felten, H., Rensen, P., & Movisie. (2019). *De waarde van werkzame mechanismen voor de praktijk van sociaal werk* (Ethiscript, Ed.). https://www.movisie.nl/sites/movisie.nl/files/2019-06/Wat-verandert-de-waarde-van-werkzame-mechanismen.pdf

Bosgraaf, L., Spreen, M., Pattiselanno, K., & Van Hooren, S. (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*. https://doi.org/10.3389/fpsyg.2020.584685

Bosgraaf, L., Spreen, M., Pattiselanno, K., & Van Hooren, S. (2022). Measurement and development of art therapeutic actions in the treatment of children and adolescents with psychosocial problems. *International Journal of Art Therapy*. https://doi.org/10.1080/17454832.2022.2127815

Bosgraaf, L., Spreen, M., Pattiselanno, K., & Van Hooren, S. (2023). Affect regulating art(s) therapy for children and adolescents experiencing psychosocial problems. *International Journal of Art Therapy, 1*–9. https://doi.org/10.1080/17454832.2023.2208198

Bosgraaf, L., Spreen, M., Pattiselanno, K., & Van Hooren, S. (2024). Process evaluation of an art therapeutic treatment for children and adolescents with psychosocial problems. *The Arts in Psychotherapy, 102169*. https://doi.org/10.1016/j.aip.2024.102169

Boursnell, M. (2011). Parents with mental illness: The cycle of intergenerational mental illness. *Children Australia, 36*(1), 26–35. https://doi.org/10.1375/jcas.36.1.26

Bowlby, J. (1997). *Attachment and loss*. Pimlico.

Bradley, B., DeFife, J. A., Guarnaccia, C., Phifer, J., Fani, N., Ressler, K. J., & Westen, D. (2011). Emotion dysregulation and negative affect. *The Journal of Clinical Psychiatry, 72*(5), 685–691. https://doi.org/10.4088/jcp.10m06409blu

Bradley, M. M. (2000). Emotion and motivation. In J. T. Cacioppo, L. G. Tassinary, & G. G. Berntson (Eds.), *Handbook of psychophysiology* (2nd ed., pp. 602–642). Cambridge University Press.

Bratton, S. C., Landreth, G. L., Kellam, T., & Blackard, S. R. (2005). Child-parent relationship therapy (CPRT) for adoptive families: Effects on child behavior, parental attunement, and stress. *Journal of Family Psychology, 19*(3), 443–453.

Broidy, L., Nagin, D. S., Tremblay, R. E., Bates, J. E., Brame, B., Dodge, K. A., Fergusson, D. M., Horwood, L. J., Loeber, R., Laird, R. D., Lynam, D. R., Moffitt, T. E., Pettit, G. S., & Vitaro, F. (2003). Developmental trajectories of childhood disruptive behaviors and adolescent delinquency: A six-site, cross-national study. *Developmental Psychology, 39*(2), 222–245. https://doi.org/10.1037/0012-1649.39.2.222

Bruijniks, S. J. E., Sijbrandij, M., Schlinkert, C., & Huibers, M. J. H. (2018). Isolating therapeutic procedures to investigate mechanisms of change in cognitive behavioral therapy for depression. *Journal of Experimental Psychopathology, 9*(4), 204380871880089. https://doi.org/10.1177/2043808718800893

Brumariu, L. E. (2015). Parent-child attachment and emotion regulation. *New Directions for Child and Adolescent Development, 2015*(148), 31–45. https://doi.org/10.1002/cad.20098

Byrne, G., Murphy, S., & Connon, G. (2020). Mentalization-based treatments with children and families: A systematic review of the literature. *Clinical Child Psychology and Psychiatry, 25*(4), 1022–1048. https://doi.org/10.1177/1359104520920689

Candy, L. (2006). *CCS report: Practice-based research: A guide* (1.0). University of Technology, Sydney. https://www.creativityandcognition.com/resources/PBR%20Guide-1.1-2006.pdf

Carolan, R., & Backos, A. (2017). *Emerging perspectives in art therapy: Trends, movements, and developments*. Routledge.

Carr, E. W., & Winkielman, P. (2014). When mirroring is both simple and "smart": How mimicry can be embodied, adaptive, and non-representational. *Frontiers in Human Neuroscience, 8*. https://doi.org/10.3389/fnhum.2014.00505

Casad, B. J. (2019, October 9). Confirmation bias. *Encyclopedia Britannica*. https://www.britannica.com/science/confirmation-bias

Caspi, A., Sugden, K., Moffitt, T. E., Taylor, A., Craig, I. W., Harrington, H. L., McClay, J. L., Mill, J., Martin, J., Braithwaite, A. W., & Poulton, R. (2003). Influence of life stress on depression: Moderation by a polymorphism in the 5-HTT gene. *Science, 301*(5631), 386–389. https://doi.org/10.1126/science.1083968

Chapman, L., Morabito, D., Ladakakos, C., Schreier, H., & Knudson, M. M. (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

Charman, T., Swettenham, J., Baron-Cohen, S., Cox, A., Baird, G., & Drew, A. (1997). Infants with autism: An investigation of empathy, pretend play, joint attention, and imitation. *Developmental Psychology, 33*(5), 781–789. https://doi.org/10.1037/0012-1649.33.5.781

Charmaz, K. (2014). *Constructing grounded theory*. Sage Publications.

Chaves, E. (2011). The creation of art books with adolescents diagnosed with an eating disorder: Effectiveness, self-esteem, and related factors (Doctoral dissertation). University of Denver. https://digitalcommons.du.edu/etd/122/

Cho, S. M., & Shin, Y. M. (2013). The promotion of mental health and the prevention of mental health problems in child and adolescent. *Korean Journal of Pediatrics, 56*(11), 459–463. https://doi.org/10.3345/kjp.2013.56.11.459

Chorpita, B. F., Daleiden, E. L., Ebesutani, C., Young, J., Becker, K. D., Nakamura, B. J., Phillips, L. J., Ward, A., Lynch, R. E., Trent, L. R., Smith, R. M., Okamura, K., & Starace, N. (2011). Evidence-based treatments for children and adolescents: An updated review of indicators of efficacy and effectiveness. *Clinical Psychology: Science and Practice, 18*(2), 154–172. https://doi.org/10.1111/j.1468-2850.2011.01247.x

Cohen-Yatziv, L., & Regev, D. (2019). The effectiveness and contribution of art therapy work with children in 2018—what progress has been made so far? A systematic review. *International Journal of Art Therapy, 24*(3), 100–112. https://doi.org/10.1080/17454832.2019.1574845

Cole, P. M. (2014). Moving ahead in the study of the development of emotion regulation. *International Journal of Behavioral Development, 38*(2), 203–207. https://doi.org/10.1177/0165025414522170

Cole, P. M., Martin, S. E., & Dennis, T. A. (2004). Emotion regulation as a scientific construct: Methodological challenges and directions for child development research. *Child Development, 75*(2), 317–333. https://doi.org/10.1111/j.1467-8624.2004.00673.x

Colizzi, M., Lasalvia, A., & Ruggeri, M. (2020). Prevention and early intervention in youth mental health: Is it time for a multidisciplinary and trans-diagnostic model for care? *International Journal of Mental Health Systems, 14*(1). https://doi.org/10.1186/s13033-020-00356-9

Compas, B. E., Jaser, S. S., Dunbar, J. P., Watson, K. H., Bettis, A. H., Gruhn, M. A., & Williams, E. (2014). Coping and emotion regulation from childhood to early adulthood: Points of convergence and divergence. *Australian Journal of Psychology, 66*(2), 71–81. https://doi.org/10.1111/ajpy.12043

Cooke, J. E., Kochendorfer, L. B., Stuart-Parrigon, K. L., Koehn, A. J., & Kerns, K. A. (2019). Parent-child attachment and children's experience and regulation of emotion: A meta-analytic review. *Emotion, 19*(6), 1103–1126. https://doi.org/10.1037/emo0000504

Copeland, W. E., Wolke, D., Shanahan, L., & Costello, E. J. (2015). Adult functional outcomes of common childhood psychiatric problems. *JAMA Psychiatry, 72*(9), 892–899. https://doi.org/10.1001/jamapsychiatry.2015.0730

Cosgrove, V. E., Rhee, S. H., Gelhorn, H. L., Boeldt, D., Corley, R., Ehringer, M. A., Young, S. E., & Hewitt, J. K. (2010). Structure and etiology of co-occurring internalizing and externalizing disorders in adolescents. *Journal of Abnormal Child Psychology, 39*(1), 109–123. https://doi.org/10.1007/s10802-010-9444-8

Costello, E. J., Egger, H. L., & Angold, A. (2005). The developmental epidemiology of anxiety disorders: Phenomenology, prevalence, and comorbidity. *Child and Adolescent Psychiatric Clinics of North America, 14*(4), 631–648. https://doi.org/10.1016/j.chc.2005.06.003

Coyne, I., Amory, A., Kiernan, G., & Gibson, F. (2019). Children's participation in shared decision-making: Children, adolescents, parents and healthcare professionals' perspectives and experiences. *European Journal of Oncology Nursing, 40*, 78–89.

Cracco, E., Goossens, L., & Braet, C. (2017). Emotion regulation across childhood and adolescence: Evidence for a maladaptive shift in adolescence. *European Child & Adolescent Psychiatry, 26*(8), 909–921. https://doi.org/10.1007/s00787-017-0952-8

Craig, P., Dieppe, P., Macintyre, S., Michie, S., Nazareth, I., & Petticrew, M. (2013). Developing and evaluating complex interventions: The new medical research council guidance. *International Journal of Nursing Studies, 50*(5), 587–592. https://doi.org/10.1016/j.ijnurstu.2012.09.010

Craig, P., Dieppe, P., MacIntyre, S., Michie, S., Nazareth, I., & Petticrew, M. (2008). Developing and evaluating complex interventions: The new Medical Research Council guidance. *The BMJ*, a1655. https://doi.org/10.1136/bmj.a1655

Creswell, J. W. (2015). *A concise introduction to mixed methods research*. Sage.

Crittenden, P. M. (2015). *Raising Parents: Attachment, Representation, and Treatment* (2nd ed.). Routledge.

Cuijpers, P., Reijnders, M., & Huibers, M. J. H. (2019). The role of common factors in psychotherapy outcomes. *Annual Review of Clinical Psychology, 15*(1), 207–231. https://doi.org/10.1146/annurev-clinpsy-050718-095424

D'Amico, M., & Lalonde, C. (2017). The effectiveness of art therapy for teaching social skills to children with autism spectrum disorder. *Art Therapy, 34*(4), 176–182. doi.org/10.1080/07421656.2017.1384678

Daniel, S. K., Abdel-Baki, R., & Hall, G. B. (2020). The protective effect of emotion regulation on child and adolescent wellbeing. *Journal of Child and Family Studies, 29*(7), 2010–2027. https://doi.org/10.1007/s10826-020-01731-3

Databank Effectieve Sociale Interventies. (n.d.). Movisie. https://www.movisie.nl/databank-effectieve-sociale-interventies

De Witte, M., Orkibi, H., Zarate, R., Karkou, V., Sajnani, N., Malhotra, B., Ho, R. T. H., Kaimal, G., Baker, F. A., & Koch, S. C. (2021). From therapeutic factors to mechanisms of change in the creative arts therapies: A scoping review. *Frontiers in Psychology, 12*, 678397. https://doi.org/10.3389/fpsyg.2021.678397

Dekker-van Der Sande, F., & Sterkenburg, P. (2016). *Mentalization can be learned* (InVision Ondertiteling BV, Trans.; First edition). Bartiméus. https://bartimeus.nl/uploads/media/621741579d69a/mentalization-can-be-learned.pdf?token=/uploads/media/621741579d69a/mentalization-can-be-learned.pdf

Dekking, F. M., Kraaikamp, C., Lopuhaä, H. P., & Meester, L. E. (2005). *A modern introduction to probability and statistics*. Springer Texts in Statistics. doi:10.1007/1-84628-168-7

Devidas, N. S. A. P., & Mendonca, T. L. (2017). A study to evaluate the effectiveness of art therapy on self-esteem among the orphans in selected orphanages at Mangalore. *Asian Journal of Nursing Education and Research, 7*(3), 376. doi.org/10.5958/2349-2996.2017.00075.1

Djurisic, S., Rath, A., Gaber, S., Garattini, S., Bertele, V., Ngwabyt, S., Hivert, V., Neugebauer, E. A. M., Laville, M., Hiesmayr, M., Demotes-Mainard, J., Kubiak, C., Jakobsen, J. C., & Gluud, C. (2017). Barriers to the conduct of randomised clinical trials within all disease areas. *Trials, 18*(1). https://doi.org/10.1186/s13063-017-2099-9

Dominguez, M., Wichers, M., Lieb, R., Wittchen, H., & Van Os, J. (2009). Evidence that onset of clinical psychosis is an outcome of progressively more persistent subclinical psychotic experiences: An 8-year cohort study. *Schizophrenia Bulletin, 37*(1), 84–93. https://doi.org/10.1093/schbul/sbp022

Duncan, B. L., Miller, S. D., Wampold, B. E., & Hubble, M. A. (2003). *The heart and soul of change: Delivering what works in therapy*. American Psychological Association.

Durlak, J. A., & DuPre, E. P. (2008). Implementation matters: A review of research on the influence of implementation on program outcomes and the factors affecting implementation. *American Journal of Community Psychology, 41*(3–4), 327–350. https://doi.org/10.1007/s10464-008-9165-0

Duschinsky, R., Greco, M., & Solomon, J. (2015). The politics of attachment: Lines of flight with Bowlby, Deleuze and Guattari. *Theory, Culture & Society, 32*(7–8), 173–195. https://doi.org/10.1177/0263276415605577

Dvir, Y., Ford, J. D., Hill, M., & Frazier, J. A. (2014). Childhood maltreatment, emotional dysregulation, and psychiatric comorbidities. *Harvard Review of Psychiatry, 22*(3), 149–161. https://doi.org/10.1097/hrp.0000000000000014

Dye, M. (2018, May). *Evaluating the benefits of art therapy interventions with grieving children* (Thesis). James Madison University JMU Scholarly Commons. Retrieved from https://commons.lib.jmu.edu/edspec201019/129

Eaton, L. G., Doherty, K. L., & Widrick, R. M. (2007). A review of research and methods used to establish art therapy as an effective treatment method for traumatized children. *The Arts in Psychotherapy, 34*(3), 256–262. https://doi.org/10.1016/j.aip.2007.03.001

Ehrenreich-May, J., & Chu, B. C. (Eds.). (2014). *Transdiagnostic treatments for children and adolescents: Principles and practice*. The Guilford Press.

Eisenberg, N., Cumberland, A., & Spinrad, T. L. (1998). Parental socialization of emotion. *Psychological Inquiry, 9*(4), 241–273. https://doi.org/10.1207/s15327965pli0904_1

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. doi.org/10.1093/cs/30.1.27

Erdmann, K. A., & Hertel, S. (2019). Self-regulation and co-regulation in early childhood – Development, assessment and supporting factors. *Metacognition and Learning, 14*(3), 229–238. https://doi.org/10.1007/s11409-019-09211-w

Erlingsson, C., & Brysiewicz, P. (2017). A hands-on guide to doing content analysis. *African Journal of Emergency Medicine, 7*(3), 93–99. doi.org/10.1016/j.afjem.2017.08.001

Erskine, H. E., Baxter, A. J., Patton, G., Moffitt, T. E., Patel, V., Whiteford, H. A., & Scott, J. G. (2016). The global coverage of prevalence data for mental disorders in children and adolescents. *Epidemiology and Psychiatric Sciences, 26*(4), 395–402. https://doi.org/10.1017/s2045796015001158

Evans, C. A., & Porter, C. L. (2009). The emergence of mother-infant co-regulation during the first year: Links to infants' developmental status and attachment. *Infant Behavior and Development, 32*(2), 147–158. https://doi.org/10.1016/j.infbeh.2008.12.005

Fairburn, C. G., & Cooper, Z. (2011). Therapist competence, therapy quality, and therapist training. *Behaviour Research and Therapy, 49*(6–7), 373–378. https://doi.org/10.1016/j.brat.2011.03.005

Fenn, K., & Byrne, M. (2013). The key principles of cognitive-behavioral therapy. *Innovation: Education and Inspiration for General Practice, 6*(9), 579–585. doi.org/10.1177/1755738012471029

Fixsen, D. L., Blase, K. A., Naoom, S. F., & Wallace, F. (2009). Core implementation components. *Research on Social Work Practice, 19*(5), 531–540. https://doi.org/10.1177/1049731509335549

Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M., & Wallace, F. (2005). *Implementation research: A synthesis of the literature*. Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute, National Implementation Research Network. (FMHI Publication No. 231)

Flavell, J. H., & Miller, P. H. (1998). Social cognition. In W. Damon (Ed.), *Handbook of child psychology: Vol. 2. Cognition, perception, and language* (pp. 851–898). John Wiley & Sons, Inc.

Flick, U. (2009). *An introduction to qualitative research* (4th ed.). Sage Publications Ltd.

Fogel, A. (2011). Theoretical and applied dynamic systems research in developmental science. *Child Development Perspectives, 5*(4), 267–272. https://doi.org/10.1111/j.1750-8606.2011.00174.x

Fonagy, P., & Allison, E. (2014). The role of mentalizing and epistemic trust in the therapeutic relationship. *Psychotherapy, 51*(3), 372–380. https://doi.org/10.1037/a0036505

Fonagy, P., & Campbell, C. (2018). Mentalizing, attachment and epistemic trust: How psychotherapy can promote resilience. Geraadpleegd op 15 april 2022, van https://discovery.ucl.ac.uk/id/eprint/1574378/1/Fonagy_Mentalizing%20attachment%20and%20epistemic%20trust.pdf

Fonagy, P., & Luyten, P. (n.d.). Attachment, mentalization and the self. Geraadpleegd op 8 februari 2022, van https://discovery.ucl.ac.uk/id/eprint/1535395/1/Fonagy%20Luyten_with%20figures.pdf

Fonagy, P., & Target, M. (2002). Early intervention and the development of self-regulation. *Psychoanalytic Inquiry, 22*(3), 307–335. https://doi.org/10.1080/07351692209348990

Fonagy, P., Gergely, G., & Jurist, E. L. (2018). *Affect regulation, mentalization, and the development of the self*. Taylor & Francis.

Fonagy, P., Gergely, G., Jurist, E. L., & Target, M. (2018). *Affect regulation, mentalization, and the development of the self*. Routledge.

Fonagy, P., Roth, A. D., & Higgitt, A. (2005). Psychodynamic psychotherapies: Evidence-based practice and clinical wisdom. *Bulletin of The Menninger Clinic, 69*(1), 1–58. https://doi.org/10.1521/bumc.69.1.1.62267

Forns, M., Abad, J., & Kirchner, T. (2011). Internalizing and externalizing problems. In *Springer eBooks* (pp. 1464–1469). https://doi.org/10.1007/978-1-4419-1695-2_261

Frank, H. E., Becker-Haimes, E. M., & Kendall, P. C. (2020). Therapist training in evidence-based interventions for mental health: A systematic review of training approaches and outcomes. *Clinical Psychology: Science and Practice, 27*(3). https://doi.org/10.1111/cpsp.12330

Franklin, M. (2010). Affect regulation, mirror neurons, and the third hand: Formulating mindful empathic art interventions. *Art Therapy, 27*(4), 160–167. doi.org/10.1080/07421656.2010.10129385

Freilich, R., & Shechtman, Z. (2010). The contribution of art therapy to the social, emotional, and academic adjustment of children with learning disabilities. *The Arts in Psychotherapy, 37*(2), 97–105. doi.org/10.1016/j.aip.2010.02.003

Frey, D. (2015). Play therapy interventions with adults. In D. Crenshaw and A. Stewart (Eds.), *Play therapy: A comprehensive guide to theory and practice* (pp. 452-64). New York: Guilford.

Frith, C. D., & Frith, U. (2007). Social cognition in humans. *Current Biology, 17*(16), R724-32. doi:10.1016/j.cub.2007.05.068

Furlong, M. J., You, S., Renshaw, T. L., Smith, D. H., & O'Malley, M. K. (2014). Preliminary development and validation of the social and emotional health survey for secondary school students. *Social Indicators Research, 117*(3), 1011–1032.

Furnivall, J. (2011). Attachment-informed practice with looked after children and young people. (IRISS Insights; Vol. 10).

Garber, J., Frankel, S. A., & Herrington, C. G. (2016). Developmental demands of cognitive behavioral therapy for depression in children and adolescents: Cognitive, social, and emotional processes. *Annual Review of Clinical Psychology, 12*, 181–216.

Gardner, B. (2015). Play therapy with adolescents. In D. Crenshaw and A. Stewart (Eds.), *Play therapy: A comprehensive guide to theory and practice* (pp. 439-51). New York: Guilford.

Garland, A. F., Kruse, M., & Aarons, G. A. (2003). Clinicians and outcome measurement: What's the use? *Journal of Behavioral Health Services & Research, 30*(4), 393–405.

Gerge, A., & Pedersen, I. N. (2017). Analyzing pictorial artifacts from psychotherapy and art therapy when overcoming stress and trauma. *The Arts in Psychotherapy, 54*, 56–68. doi:10.1016/j.aip.2017.02.001

Gerge, A., Hawes, J., Eklöf, L., & Pedersen, I. N. (2019). Proposed mechanisms of change in arts-based psychotherapies. *Voices: A World Forum for Music Therapy, 19*(2), 31. doi:10.15845/voices.v19i2.2564

Gergov, V., Lindberg, N., Lahti, J., Lipsanen, J., & Marttunen, M. (2021). Effectiveness and predictors of outcome for psychotherapeutic interventions in clinical settings among adolescents. *Frontiers in Psychology.*

Gillespie, L. (2015). It takes two: The role of co-regulation in building self-regulation skills. *YC Young Children, 70*(3), 94–96.

Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking qualitative rigor in inductive research. *Organizational Research Methods, 16*(1), 15–31. doi:10.1177/1094428112452151

Glasgow, R. E., Davis, C. L., Funnell, M. M., & Beck, A. (2003). Implementing practical interventions to support chronic illness self-management. *Joint Commission Journal on Quality and Safety, 29*(11), 563–574.

Gomez, T., Quiñones-Camacho, L. E., & Davis, E. M. (2018). Building a sense of self: The link between emotion regulation and self-esteem in young adults. *University of California, Riverside Undergraduate Research Journal, 12*(1).

Gottman, J. M., Katz, L. F., & Hooven, C. (1996). Parental meta-emotion philosophy and the emotional life of families: Theoretical models and preliminary data. *Journal of Family Psychology, 10*(3), 243-268.

Graber, J. (2013). Internalizing problems during adolescence. In R. M. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology* (2nd ed., pp. 587–626). Hoboken: Wiley.

Grant, C., & Osanloo, A. F. (2014). Understanding, selecting, and integrating a theoretical framework in dissertation research: Creating the blueprint for your "house." *Administrative Issues Journal, 4*(2), 12–26.

Gratz, K. L., Levy, R., & Tull, M. T. (2012). Emotion regulation as a mechanism of change in an acceptance-based emotion regulation group therapy for deliberate self-harm among women with borderline personality pathology. *Journal of Cognitive Psychotherapy, 26*(4), 365–380. doi:10.1891/0889-8391.26.4.365

Graves-Alcorn, S., & Green, E. (2014). The expressive arts therapy continuum: History and theory. In E. Green & A. Drewes (Eds.), *Integrating expressive arts and play therapy with children and adolescents* (pp. 10–16). New York: Wiley.

Groh, A. M., Fearon, R. M. P., van IJzendoorn, M. H., Bakermans-Kranenburg, M. J., & Roisman, G. I. (2016). Attachment in the early life course: Meta-analytic evidence for its role in socioemotional development. *Child Development Perspectives, 11*(1), 70–76.

Gross, J. J. (2015). Emotion regulation: Current status and future prospects. *Psychological Inquiry, 26*(1), 1–26.

Gruber, H., & Oepen, R. (2018). Emotion regulation strategies and effects in art-making: A narrative synthesis. *The Arts in Psychotherapy, 59*, 65–74.

Gustafsson, J. (2017). Single case studies vs. multiple case studies: A comparative study. Geraadpleegd van www.diva-portal.org/smash/get/diva2:1064378/FULLTEXT01.pdf

Haeyen, S., Van Hooren, S., Dehue, F., & Hutschemaekers, G. (2017). Development of an art-therapy intervention for patients with personality disorders: An intervention mapping study. *International Journal of Art Therapy, 23*(3), 125–135.

Haine-Schlagel, R., & Walsh, N. E. (2015). A review of parent participation engagement in child and family mental health treatment. *Clinical Child and Family Psychology Review, 18*(2), 133–150.

Hakvoort, B., van der Leij, A., Maurits, N., Maassen, B., & van Zuijen, T. L. (2015). Basic auditory processing is related to familial risk, not to reading fluency: An ERP study. *Cortex, 63*, 90–103. doi:10.1016/j.cortex.2014.08.013

Halder, S., & Mahato, A. K. (2019). Cognitive behavior therapy for children and adolescents: Challenges and gaps in practice. *Indian Journal of Psychological Medicine, 41*(3), 279–283.

Hammerton, G., & Munafò, M. R. (2021). Causal inference with observational data: The need for triangulation of evidence. *Psychological Medicine, 51*(4), 563–578.

Hammud, G., Avital-Magen, A., Schusheim, G., Barzuza, I., & Engel-Yeger, B. (2023). How self-regulation and executive functions deficits affect quality of life of children/adolescents with emotional regulation disorders. *Children (Basel), 10*(10), 1622.

Hamoudi, A., Murray, D. W., Sorensen, L., & Fontaine, A. (2014). *Self-regulation and toxic stress Report 2: A review of ecological, biological, and developmental studies of self-regulation and stress*. OPRE Report # 2015-30, Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

Hansen, A. S., Telléus, G. K., Mohr-Jensen, C., Thomsen, P. H., & Obel, C. (2021). Parent-perceived barriers to accessing services for their child's mental health problems. *Child and Adolescent Psychiatry and Mental Health, 15*(1), 4.

Harman, C., Rothbart, M. K., & Posner, M. I. (1997). Distress and attention interactions in early infancy. *Motivation and Emotion, 21*(1), 27–43.

Harpazi, S., Regev, D., Snir, S., & Raubach-Kaspy, R. (2020). Perceptions of art therapy in adolescent clients treated within the school system. *Frontiers in Psychology, 11*.

Hartz, L., & Thick, L. (2005). Art therapy strategies to raise self-esteem in female juvenile offenders: A comparison of art psychotherapy and art as therapy approaches. *Art Therapy, 22*(2), 70–80. doi:10.1080/07421656.2005.10129440

Hashemian, P., & Jarahi, L. (2014). Effect of painting therapy on aggression in educable intellectually disabled students. *Psychology, 05*(18), 2058–2063. doi:10.4236/psych.2014.518208

Hawes, D. J., & Dadds, M. R. (2021). Case complexity and resistance to change in the treatment of child conduct problems. In J. L. Allen, D. J. Hawes, & C. A. Essau (Eds.), *Family-based intervention for child and adolescent mental health: A core competencies approach* (pp. 119–135). Cambridge University Press.

Hawes, D. J., Price, M. J., & Dadds, M. R. (2014). Callous-unemotional traits and the treatment of conduct problems in childhood and adolescence: A comprehensive review. *Clinical Child and Family Psychology Review, 17*(3), 248–267.

Heilman, R. M., Crişan, L. G., Houser, D., Miclea, M., & Miu, A. C. (2010). Emotion regulation and decision making under risk and uncertainty. *Emotion, 10*(2), 257–265.

Hewig, J., Kraus, U., Mussel, J., Osinsky, R., & Paelecke, M. (2015). Personality assessment. In *Elsevier eBooks* (pp. 827–833).

Higenbottam, W. (2004). In her image. *Canadian Art Therapy Association Journal, 17*(1), 10–16. doi:10.1080/08322473.2004.11432256

Higgins, J. P. T., & Green, S. (Eds.). (2008). *Cochrane handbook for systematic reviews of interventions*. John Wiley & Sons.

Hill, D., & Schore, A. N. (2015). *Affect Regulation Theory: A Clinical Model.* New York, NY: W. W. Norton.

Hill, K. G., Woodward, D., Woelfel, T., Hawkins, J. D., & Green, S. (2015). Planning for Long-Term Follow-Up: Strategies Learned from Longitudinal Studies. *Prevention Science*, *17*(7), 806–818. https://doi.org/10.1007/s11121-015-0610-7

Hinz, L., Grosse, J., Ziegenhain, U., & Brähler, E. (2020). A randomized controlled trial of art therapy for women with breast cancer. Psycho-Oncology, 29(5), 931-938. https://doi.org/10.1002/pon.5398

Hoffman, K., Cooper, G., Powell, B., Benton, C. M., & Siegel, D. J. (2017). *Raising a Secure Child*. New York, NY: Guilford Publications.

Jabbari, B. (2023, 16 september). *Family dynamics*. StatPearls - NCBI Bookshelf. https://www.ncbi.nlm.nih.gov/books/NBK560487/

Jacob, K. S. (2013). Psychosocial adversity and mental illness: Differentiating distress, contextualizing diagnosis. *Indian Journal of Psychiatry, 55*(2), 106. doi:10.4103/0019-5545.111444

Jang, H., & Choi, S. (2012). Increasing ego-resilience using clay with low SES (Social Economic Status) adolescents in group art therapy. *The Arts in Psychotherapy, 39*(4), 245–250. doi:10.1016/j.aip.2012.04.001

Jaspers, M., de Winter, A. F., Veenstra, R., Ormel, J., Verhulst, F. C., & Reijneveld, S. A. (2012). Preventive child health care findings on early childhood predict peer-group social status in early adolescence. *Journal of Adolescent Health, 51*(6), 637–642. doi:10.1016/j.jadohealth.2012.03.017

Jin, J., Sklar, G. E., Oh, V. M. S., & Li, S. C. (2008). Factors affecting therapeutic compliance: A review from the patient's perspective. *Therapeutics and Clinical Risk Management, 4*, 269–286. doi:10.2147/tcrm.s1458

Jo, M. J., Hong, S., & Park, H. R. (2018). Effects of art intervention program for siblings of children with cancer: A pilot study. *Journal of Pediatric Oncology Nursing, 35*(3), 178–187. doi:10.1177/1043454218762702

Kaaronen, R. O. (2018). A theory of predictive dissonance: Predictive processing presents a new take on cognitive dissonance. *Frontiers in Psychology, 9*. doi:10.3389/fpsyg.2018.02218

Kaimal, G., Ayaz, H., Herres, J., Dieterich-Hartwell, R., Makwana, B., Kaiser, D. H., & Nasser, J. A. (2017). Functional near-infrared spectroscopy assessment of reward perception based on visual self-expression: Coloring, doodling, and free drawing. *The Arts in Psychotherapy, 55*, 85–92. doi:10.1016/j.aip.2017.05.004

Karkou, V., & Sanderson, P. (2006). *Arts therapies: A research-based map of the field*. Elsevier Churchill Livingstone.

Karver, M. S., Handelsman, J. B., Fields, S., & Bickman, L. (2006). Meta-analysis of therapeutic relationship variables in youth and family therapy: The evidence for different relationship variables in the child and adolescent treatment outcome literature. *Clinical Psychology Review, 26*(1), 50–65. doi:10.1016/j.cpr.2005.09.001

Kazdin, A. E. (2007). Mediators and mechanisms of change in psychotherapy research. *Annual Review of Clinical Psychology, 3*, 1–27. doi:10.1146/annurev.clinpsy.3.022806.091432

Kazdin, A. E. (2008). Evidence-based treatment and practice: New opportunities to bridge clinical research and practice, enhance the knowledge base, and improve patient care. *American Psychologist, 63*(3), 146–159.

Kazdin, A. E. (2011). *Single-case research designs: Methods for clinical and applied settings* (2nd ed.). Oxford University Press.

Kazdin, A. E. (2020). Single-case experimental designs: Characteristics, changes, and challenges. *Journal of the Experimental Analysis of Behavior, 115*(1), 56–85. doi:10.1002/jeab.638

Kazdin, A. E., & Blase, S. L. (2011). Rebooting psychotherapy research and practice to reduce the burden of mental illness. *Perspectives on Psychological Science, 6*(1), 21–37. doi:10.1177/1745691610393527

Kendall, P. C., & Choudhury, M. S. (2003). Children and adolescents in cognitive–behavioral therapy: Some past efforts and current advances, and the challenges in our future. *Cognitive Therapy and Research, 27*(1), 89–104. doi:10.1023/a:1022542814822

Kendler, K. S., Prescott, C. A., Myers, J., & Neale, M. C. (2003). The structure of genetic and environmental risk factors for common psychiatric and substance use disorders in men and women. *Archives of General Psychiatry, 60*(9), 929. doi:10.1001/archpsyc.60.9.929

Kersten, P., Vandal, A. C., Elder, H., & McPherson, K. M. (2018). Strengths and Difficulties Questionnaire: Internal validity and reliability for New Zealand preschoolers. *BMJ Open, 8*(4), e021551. doi:10.1136/bmjopen-2018-021551

Kessler, R. C., Berglund, P. A., Demler, O. V., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry, 62*(6), 593. doi:10.1001/archpsyc.62.6.593

Khadar, M. G., Babapour, J., & Sabourimoghaddam, H. (2013). The effect of art therapy based on painting therapy in reducing symptoms of oppositional defiant disorder (ODD) in elementary school boys. *Procedia - Social and Behavioral Sciences, 84*, 1872–1878. doi:10.1016/j.sbspro.2013.07.051

Khodabakhshi Koolaee, A., Vazifehdar, R., Bahari, F., & Akbari, M. E. (2016). Impact of painting therapy on aggression and anxiety of children with cancer. *Caspian Journal of Pediatrics, 2*(2), 135–141.

Kieling, C., Baker-Henningham, H., Belfer, M., Conti, G., Ertem, I., Omigbodun, O., Rahman, A. (2011). Child and adolescent mental health worldwide: Evidence for action. *The Lancet, 378*(9801), 1515–1525. doi:10.1016/s0140-6736(11)60827-1

Kilbourne, A. M., Neumann, M. S., Pincus, H. A., Bauer, M. S., & Stall, R. D. (2007). Implementing evidence-based interventions in health care: Application of the replicating effective programs framework. *Implementation Science, 2*(1). doi:10.1186/1748-5908-2-42

Kim, B. R., Stifter, C. A., Philbrook, L. E., & Teti, D. M. (2014). Infant emotion regulation: Relations to bedtime emotional availability, attachment security, and temperament. *Infant Behavior and Development, 37*(4), 480–490. doi:10.1016/j.infbeh.2014.06.006

King, J. L., & Kaimal, G. (2019). Approaches to research in art therapy using imaging technologies. *Frontiers in Human Neuroscience, 13*. doi:10.3389/fnhum.2019.00159

Klatte, I., Ketelaar, M., De Groot, A., Bloemen, M., & Gerrits, E. (2023). Collaboration: How does it work according to therapists and parents of young children? A systematic review. *Child: Care, Health and Development, 50*(1). doi:10.1111/cch.13167

Koo, T. K., & Li, M. Y. (2016). A guideline of selecting and reporting intraclass correlation coefficients for reliability research. *Journal of Chiropractic Medicine, 15*(2), 155–163. doi:10.1016/j.jcm.2016.02.012

Kraiss, J. T., ten Klooster, P. M., Moskowitz, J. T., & Bohlmeijer, E. T. (2020). The relationship between emotion regulation and well-being in patients with mental disorders: A meta-analysis. *Comprehensive Psychiatry, 102*, 152189. doi:10.1016/j.comppsych.2020.152189

Kring, A. M., & Sloan, D. M. (Eds.). (2010). *Emotion regulation and psychopathology: A transdiagnostic approach to etiology and treatment*. The Guilford Press.

Kymissis, P., Christenson, E., Swanson, A. J., & Orlowski, B. (1996). Group treatment of adolescent inpatients: A pilot study using a structured therapy approach. *Journal of Child and Adolescent Group Therapy, 6*(1), 45–52. doi:10.1007/bf02548513

Lancet. (n.d.). *The Lancet in focus: Child & adolescent health*. Geraadpleegd van info.thelancet.com/infocus-child-adolescent-health

Lehman, B. J., David, D. M., & Gruber, J. A. (2017). Rethinking the biopsychosocial model of health: Understanding health as a dynamic system. *Social and Personality Psychology Compass, 11*(8), e12328. doi:10.1111/spc3.12328

Leung, C., & Toukmanian, S. (2018). Involving caregivers in child and adolescent psychotherapy: An integrative review. *Journal of Child and Family Studies, 27*(10), 3206–3221. doi:10.1007/s10826-018-1177-5

Levitt, H. M., Pomerville, A., & Surace, F. I. (2016). A qualitative meta-analysis examining clients' experiences of psychotherapy: A new agenda. *Psychological Bulletin, 142*(8), 801–830. doi:10.1037/bul0000044

Lillie, E. O., Patay, B., Diamant, J., Issell, B., Topol, E. J., & Schork, N. J. (2011). The n-of-1 clinical trial: The ultimate strategy for individualizing medicine? *Personalized Medicine, 8*(2), 161–173. doi:10.2217/pme.11.7

Liu, C. (2017). Examining the effectiveness of solution-focused art therapy (SF-AT) for sleep problems of children with traumatic experience. Geraadpleegd van semanticscholar.org/paper/Examining-the-Effectiveness-of-Solution-Focused-Art-Liu

Liu, R. J. (2004). Childhood externalizing behavior: Theory and implications. *Journal of Child and Adolescent Psychiatric Nursing, 17*(3), 93–103. doi:10.1111/j.1744-6171.2004.tb00003.x

Lombardi, E., Valle, A., Bianco, F., Castelli, I., Massaro, D., & Marchetti, A. (2022). Supporting mentalizing in primary school children: The effects of thoughts in mind project for children (TiM-C) on metacognition, emotion regulation and theory of mind. *Cognition & Emotion, 36*(5), 975–986. doi:10.1080/02699931.2022.2067521

Lyshak-Stelzer, F., Singer, P., Patricia, St. J., & Chemtob, C. M. (2007). Art therapy for adolescents with posttraumatic stress disorder symptoms: A pilot study. *Art Therapy, 24*(4), 163–169. doi:10.1080/07421656.2007.10129474

Main, M. (2000). The organized categories of infant, child, and adult attachment: Flexible vs. inflexible attention under attachment-related stress. *Journal of the American Psychoanalytic Association, 48*(4), 1055–1096. doi:10.1177/00030651000480041801

Malchiodi, C. (2007). *Art therapy sourcebook*. McGraw-Hill Education.

Malchiodi, C. A. (2012a). *Art therapy and health care* (1st ed.). The Guilford Press.

Malchiodi, C. A. (2012b). Art therapy and the brain. In C. A. Malchiodi (Ed.), *Handbook of art therapy* (2nd ed., pp. 17–26). The Guilford Press.

Malchiodi, C. A. (2020). *Trauma and expressive arts therapy*. New York, NY: Guilford Publications.

Malchiodi, C. A., & Crenshaw, D. A. (2015). *Creative arts and play therapy for attachment problems* (Reprint ed.). New York City, NY: The Guilford Press.

Martínez-Mesa, J., González-Chica, D. A., Duquia, R. P., Bonamigo, R. R., & Bastos, J. L. (2016). Sampling: How to select participants in my research study? *Anais Brasileiros De Dermatologia, 91*(3), 326–330. doi:10.1590/abd1806-4841.20165254

Matchett, E. A., Ripple, M., Militar, M., Khalil, H., Scarborough, H., et al. (2020). Emotion regulation and social participation in childhood and adolescence: Systematic review. *International Journal of Autism & Related Disabilities, IJARD-138*. doi:10.29011/2642-3227.000038

Mathyssek, C., Olino, T. M., Verhulst, F. C., & Van Oort, F. V. A. (2012). Childhood internalizing and externalizing problems predict the onset of clinical panic attacks over adolescence: The TRAILS study. *PLOS ONE, 7*(12), e51564. doi:10.1371/journal.pone.0051564

Maughan, B., Rowe, R., Messer, J., Goodman, R., & Meltzer, H. (2004). Conduct disorder and oppositional defiant disorder in a national sample: Developmental epidemiology. *Journal of Child Psychology and Psychiatry, 45*(3), 609–621. doi:10.1111/j.1469-7610.2004.00250.x

McGorry, P. D., & Van Os, J. (2013). Redeeming diagnosis in psychiatry: Timing versus specificity. *The Lancet, 381*(9863), 343–345. doi:10.1016/s0140-6736(12)61268-9

McLeod, B. D., Southam-Gerow, M. A., & Weisz, J. R. (2013). Conceptual and methodological issues in treatment research with children and adolescents. In J. R. Weisz & A. E. Kazdin (Eds.), *Evidence-based psychotherapies for children and adolescents* (pp. 23–44). Guilford Press.

McLeod, R. S., Cohen, Z., Taylor, D. W., & Gullen, J. B. (1986). Single-patient randomised clinical trial: Use in determining optimum treatment for patient with inflammation of Kock continent ileostomy reservoir. *The Lancet, 327*(8483), 726–728. doi:10.1016/S0140-6736(86)91112-8

McRae, K., & Mauss, I. B. (2016). Increasing positive emotion in negative contexts. In *Oxford University Press eBooks* (pp. 159–174). doi:10.1093/acprof
/9780199977925.003.0011

Mertens, E. C. A., Deković, M., Van Londen, M., & Reitz, E. (2022). Parallel changes in positive youth development and self-awareness: The role of emotional self-regulation, self-esteem, and self-reflection. *Prevention Science, 23*(4), 502–512. doi:10.1007/s11121-022-01345-9

Meurs, P. (2009). Affectregulatietherapie (ART) als ontwikkelingsfasespecifiek equivalent van mentalisatiebevorderende therapie. In N. Vliegen, P. Meurs & L. Van Lier (Red.), *Geduldig gereedschap: de relatie als drager van het psychodynamisch proces* (pp. 47–63). Leuven: Acco.

Midgley, N., & Kennedy, E. (2011). Psychodynamic psychotherapy for children and adolescents: A critical review of the evidence base. *Journal of Child Psychotherapy, 37*(3), 232–260. doi:10
.1080/0075417X.2011.614738

Midgley, N., & Vrouva, I. (Eds.). (2012). *Minding the child: Mentalization-based interventions with children, young people and their families*. Routledge/Taylor & Francis Group.

Midgley, N., Ensink, K., Lindqvist, K., Malberg, N., & Müller, N. (2017). *Mentalization-based treatment for children: A time-limited approach*. American Psychological Association eBooks. doi:10.1037/0000028-000

Mlinarić, A., Horvat, M., & Šupak Smolčić, V. (2017). Dealing with the positive publication bias: Why you should really publish your negative results. *Biochemia Medica, 27*(3), 13–15. doi:10.11613/bm.2017.030201

Mokkink, L. B., Prinsen, C. A. C., Patrick, D. L., Alfonso, J., Bouter, L. M., De Vet, H. C. W., & Terwee, C. B. (2019). *COSMIN study design checklist for patient-reported outcome measurement instruments*. Geraadpleegd van www.cosmin.nl/wp-content/uploads/COSMIN-study-designing-checklist_final.pdf

Molina-Azorín, J. F., & Fetters, M. D. (2019). Building a better world through mixed methods research. *Journal of Mixed Methods Research, 13*(3), 275–281. doi:10.1177/1558689819855864

Moltrecht, B., Deighton, J., Patalay, P., & Edbrooke-Childs, J. (2020). Effectiveness of current psychological interventions to improve emotion regulation in youth: A meta-analysis. *European Child & Adolescent Psychiatry, 30*(6), 829–848. doi:10.1007/s00787-020-01498-4

Moon, B. L. (2012). Art therapy teaching as performance art. *Art Therapy, 29*(4), 192–195. doi:10.1080/07421656.2012.730954

Moon, C. H. (Ed.). (2010). A history of materials and media in art therapy. In C. H. Moon (Ed.), *Materials and media in art therapy: Critical understandings of diverse artistic vocabularies* (pp. 3–47). Routledge/Taylor & Francis Group.

Moore, G. F., Audrey, S., Barker, M., Bond, L., Bonell, C., Hardeman, W., Moore, L., O'Cathain, A., Tinati, T., Wight, D., & Baird, J. (2015). Process evaluation of complex interventions: Medical Research Council guidance. *BMJ (Clinical Research Ed.)*, p. 350, h1258. doi:10.1136/bmj.h1258

Morie, K. P., Lord, K. A., Diefenbach, G. J., Basuchoudhary, O., Lewis, S., & Assaf, M. (2024). Subscales of alexithymia show unique pathways through reappraisal and suppression to anxiety, depression and stress. *Journal of Affective Disorders, 347,* 445–452. doi:10.1016/j.jad.2023.11.038

Movsisyan, A., Arnold, L., Evans, R., Hallingberg, B., Moore, G., O'Cathain, A., (…) Rehfuess, E. (2019). Adapting evidence-informed complex population health interventions for new contexts: A systematic review of guidance. *Implementation Science, 14*(1). doi:10.1186/s13012-019-0956-5

Mowder, B. A., Rubinson, F., & Yasik, A. E. (2009). Evidence-based practice in infant and early childhood psychology. In *Wiley eBooks*. doi:10.1002/9781118269602

Mundy, P., & Newell, L. (2007). Attention, joint attention, and social cognition. *Current Directions in Psychological Science, 16*(5), 269–274. doi:10.1111/j.1467-8721.2007.00518.x

Murray, D. W., & Rosanbalm, K. (2017). Promoting self-regulation in adolescents and young adults: A practice brief. OPRE Report #2015-82. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

Murray, D. W., Rosanbalm, K., Christopoulos, C., & Hamoudi, A. (2014). *Self-regulation and toxic stress report 1: Foundations for understanding self-regulation from an applied perspective.* OPRE Report #XXX, Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

Naber, F. B. A., Swinkels, S. H. N., Buitelaar, J. K., Dietz, C., van Daalen, E., Bakermans-Kranenburg, M. J., van IJzendoorn, M. H., & van Engeland, H. (2007). Joint attention and attachment in toddlers with autism. *Journal of Abnormal Child Psychology, 35*(6), 899–911. doi:10.1007/s10802-007-9142-3

National Research Council and Institute of Medicine. (2009). *Preventing mental, emotional, and behavioral disorders among young people: Progress and possibilities*. Washington, DC: The National Academies Press.

Nazeri, A., Ghamarani, A., Darouei, P., & Ghasemi Tabatabaei, G. (2020). The effect of expressive arts therapy on emotion regulation of primary school students. *Journal of Child Mental Health, 7*(2), 132-143.

Ng, M. Y., & Weisz, J. R. (2015). Annual research review: Building a science of personalized intervention for youth mental health. *Journal of Child Psychology and Psychiatry, 57*(3), 216–236. doi:10.1111/jcpp.12470

Nieuwenhuis, L., Smelt, C., van der Vlugt, S., van der Ende, W., Vos, P., van der Vlugt, S., & van der Ende, W. (2020). *Affectregulerende vaktherapie*. Antwerp, Belgium: Garant.

Nivard, M. G., Lubke, G. H., Dolan, C. V., Evans, D. M., St Pourcain, B., Munafò, M. R., & Middeldorp, C. M. (2016). Joint developmental trajectories of internalizing and externalizing disorders between childhood and adolescence. *Development and Psychopathology, 29*(3), 919–928. doi:10.1017/s0954579416000572

Nock, M. K., Holmberg, E. B., Photos, V. I., & Michel, B. D. (2007). Self-injurious thoughts and behaviors interview: Development, reliability, and validity in an adolescent sample. *Psychological Assessment, 19*(3), 309–317. doi:10.1037/1040-3590.19.3.309

Oberwelland, E., Schilbach, L., Barišic, I., Krall, S., Vogeley, K., Fink, G. R., Herpertz-Dahlmann, B., Konrad, K., & Schulte-Rüther, M. (2017). Young adolescents with autism show abnormal joint attention network: A gaze contingent fMRI study. *NeuroImage: Clinical, 14*, 112–121. doi:10.1016/j.nicl.2017.01.006

Ogundele, M. (2018). Behavioural and emotional disorders in childhood: A brief overview for paediatricians. *World Journal of Clinical Pediatrics, 7*(1), 9–26. doi:10.5409/wjcp.v7.i1.9

O'Neill, A., Humphrey, N., & Stapley, E. (2023). A systematic review of qualitative research focusing on emotional distress among adolescents: Perceived cause and help-seeking. *Adolescent Research Review, 8*(3), 387–402. doi:10.1007/s40894-022-00203-7

Östberg, M., & Hagekull, B. (2013). A structural modeling approach to the understanding of parenting stress. *Journal of Clinical Child and Adolescent Psychology, 42*(2), 241-251. doi:10.1080/15374416.2012.755315

Otero, A., Félix, P., & Barro, S. (2010). Current state of critical patient monitoring and outstanding challenges. In *Handbook of research on developments in e-health and telemedicine* (pp. 981–1003). doi:10.4018/978-1-61520-670-4.ch047

Pagerols, M., Prat, R., Rivas, C., Español-Martín, G., Puigbó, J., Pagespetit, È., Haro, J. M., Ramos-Quiroga, J. A., Casas, M., & Bosch, R. (2022). The impact of psychopathology on academic performance in school-age children and adolescents. *Scientific Reports, 12*(1). doi:10.1038/s41598-022-08242-9

Pallini, S., Morelli, M., Chirumbolo, A., Baiocco, R., Laghi, F., & Eisenberg, N. (2019). Attachment and attention problems: A meta-analysis. *Clinical Psychology Review, 74*, 101772. doi:10.1016/j.cpr.2019.101772

Parker, R. I., Vannest, K. J., & Davis, J. L. (2011). Effect size in single-case research: A review of nine nonoverlap techniques. *Behavior Modification, 35*(4), 303–322. doi:10.1177/0145445511399147

Patrick, P. M., Reupert, A. E., & McLean, L. A. (2019). A cross-sectional study on intergenerational parenting and attachment patterns in adult children of parents with mental illness. *Child & Family Social Work, 24*, 601–609. doi:10.1111/cfs.12641

Pauen, S. (2016). Understanding early development of self-regulation and co-regulation: EDOS and PROSECO. *Pauen and the EDOS Group, 2*(2), 3–16. doi:10.11588/josar.2016.2.34350

Perlesz, A., & Lindsay, J. M. (2003). Methodological triangulation in researching families: Making sense of dissonant data. *International Journal of Social Research Methodology, 6*(1), 25–40. doi:10.1080/13645570305056

Petri, G., Beadle-Brown, J., & Bradshaw, J. (2020). Redefining self-advocacy: A practice theory-based approach. *Journal of Policy and Practice in Intellectual Disabilities, 17*(3), 207–218. doi:10.1111/jppi.12343

Piao, J., Huang, Y., Han, C., Li, Y., Xu, Y., Liu, Y., & He, X. (2022). Alarming changes in the global burden of mental disorders in children and adolescents from 1990 to 2019: A systematic analysis for the Global Burden of Disease study. *European Child & Adolescent Psychiatry, 31*(11), 1827–1845. doi:10.1007/s00787-022-02040-4

Pifalo, T. (2002). Pulling out the thorns: Art therapy with sexually abused children and adolescents. *Art Therapy, 19*(1), 12–22. doi:10.1080/07421656.2002.10129724

Pirkola, S., Isometsä, E., Aro, H., Kestilä, L., Hämäläinen, J., Veijola, J., Kiviruusu, O., & Lönnqvist, J. (2005). Childhood adversities as risk factors for adult mental disorders. *Social Psychiatry and Psychiatric Epidemiology, 40*(10), 769–777. doi:10.1007/s00127-005-0950-x

Polanczyk, G. V., Salum, G. A., Sugaya, L. S., Caye, A., & Rohde, L. A. (2015). Annual research review: A meta-analysis of the worldwide prevalence of mental disorders in children and adolescents. *Journal of Child Psychology and Psychiatry, 56*(3), 345–365. doi:10.1111/jcpp.12381

Ponitz, C. C., McClelland, M. M., Matthews, J. S., & Morrison, F. J. (2009). A structured observation of behavioral self-regulation and its contribution to kindergarten outcomes. *Developmental Psychology, 45*(3), 605–619. doi:10.1037/a0015365

Potash, J. S., Ho, A. H. Y., Chan, F., Wang, X. L., & Cheng, C. (2014). Can art therapy reduce death anxiety and burnout in end-of-life care workers? A quasi-experimental study. Geraadpleegd op 26 mei 2023 van cloudfront.net

Power, N., Harrison, T. L., Hackett, S., & Carr, C. (2023). Art therapy as a treatment for adults with learning disabilities who are experiencing mental distress: A configurative systematic review with narrative synthesis. *The Arts in Psychotherapy, 86*, 102088. doi:10.1016/j.aip.2023.102088

Presidential Task Force on Evidence-Based Practice. (2006). Evidence-based practice in psychology. *The American Psychologist, 61*(4), 271–285. doi:10.1037/0003-066X.61.4.271

Pretorius, G., & Pfeifer, N. (2010). Group art therapy with sexually abused girls. *South African Journal of Psychology, 40*(1), 63–73. doi:10.1177/008124631004000107

Qualtrics. (2020). *Qualtrics* [Computer software]. Geraadpleegd van www.qualtrics.com

Radež, J., Reardon, T., Creswell, C., Lawrence, P. J., Evdoka-Burton, G., & Waite, P. (2020). Why do children and adolescents (not) seek and access professional help for their mental health problems? A systematic review of quantitative and qualitative studies. *European Child & Adolescent Psychiatry, 30*(2), 183–211. doi:10.1007/s00787-019-01469-4

Ramin Alavinezhad, Mousavi, M., & Sohrabi, N. (2014). Effects of art therapy on anger and self-esteem in aggressive children. *Procedia - Social and Behavioral Sciences, 113*, 111–117. doi:10.1016/j.sbspro.2014.01.016

Ramirez, K. A. (2013). *Art therapy for enhancing academic experience of male high school freshmen* (Dissertation). Geraadpleegd van https://digitalcommons.lesley.edu/expressive_dissertations/28/

Regev, D., & Guttmann, J. (2005). The psychological benefits of artwork: The case of children with learning disorders. *The Arts in Psychotherapy, 32*(4), 302–312. doi:10.1016/j.aip.2005.02.001

Regev, D., Green-Orlovich, A., & Snir, S. (2015). Art therapy in schools – The therapist's perspective. *The Arts in Psychotherapy, 45*, 47–55. doi:10.1016/j.aip.2015.07.004

Reis, H. T., & Clark, M. S. (2013). Responsiveness. *Oxford Handbooks Online*. doi:10.1093/oxfordhb/9780195398694.013.0018

Reyno, S. M., & McGrath, P. J. (2006). Predictors of parent training efficacy for child externalizing behavior problems: A meta-analytic review. *Journal of Child Psychology and Psychiatry, 47*(1), 99–111. doi:10.1111/j.1469-7610.2005.01466.x

Richard, D. A., More, W., & Joy, S. P. (2015). Recognizing emotions: Testing an intervention for children with autism spectrum disorders. *Art Therapy, 32*(1), 13–19. doi:10.1080/07421656.2014.994163

Ridder, H. G. (2017). The theory contribution of case study research designs. *Business Research, 10*(2), 281–305. doi:10.1007/s40685-017-0045-z

Riley, S. (2001). Art therapy with adolescents. *Western Journal of Medicine, 175*(1), 54–57. doi:10.1136/ewjm.175.1.54

Ringle, V. A., Read, K. L., Edmunds, J. M., Brodman, D. M., Kendall, P. C., Barg, F., & Beidas, R. S. (2015). Barriers to and facilitators in the implementation of cognitive-behavioral therapy for youth anxiety in the community. *Psychiatric Services, 66*(9), 938–945. doi:10.1176/appi.ps.201400309

Robinson, K. S. (2009). Part of the team: Art therapy with pre-school children with developmental delays and disabilities in a children's treatment centre setting. *Canadian Art Therapy Association Journal, 22*(2), 34–43. doi:10.1080/08322473.2009.11434781

Rosal, M. L. (1993). Comparative group art therapy research to evaluate changes in locus of control in behavior disordered children. *The Arts in Psychotherapy, 20*(3), 231–241. doi:10.1016/0197-4556(93)90018-w

Rowe, C., Watson-Ormond, R., English, L., Rubesin, H., Marshall, A., Linton, K., Eng, E. (2016). Evaluating art therapy to heal the effects of trauma among refugee youth. *Health Promotion Practice, 18*(1), 26–33. doi:10.1177/1524839915626413

Rutter, M. (2006). Implications of resilience concepts for scientific understanding. *Annals of the New York Academy of Sciences, 1094*(1), 1–12. doi:10.1196/annals.1376.002

Sabatier, C., Restrepo Cervantes, D., Moreno Torres, M., Hoyos De los Rios, O., & Palacio Sañudo, J. (2017). Emotion regulation in children and adolescents: Concepts, processes and influences. *Psicología desde el Caribe, 34*(1), 101–110. Geraadpleegd van http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S0123-417X2017000100101&lng=en&tlng=en

Sanduvete-Chaves, S., Anguera, M. T., Samper García, P., & Chacón-Moscoso, S. (2022). Emotional self-regulation in everyday life: A systematic review. *Frontiers in Psychology, 13*. doi:10.3389/fpsyg.2022.884756

Saunders, E. J., & Saunders, J. A. (2000). Evaluating the effectiveness of art therapy through a quantitative, outcomes-focused study. *The Arts in Psychotherapy, 27*(2), 99–106. doi:10.1016/s0197-4556(99)00041-6

Sawilowsky, S., & Fahoome, G. (2014). Friedman's test. *Wiley StatsRef: Statistics Reference Online*. doi:10.1002/9781118445112.stat06549

Schaverien, J. (2015). *Art therapy in theory and practice.* Routledge.

Scheeringa, M. S., Salloum, A., Arnberger, R. A., Weems, C. F., Amaya-Jackson, L., & Cohen, J. A. (2007). Feasibility and effectiveness of cognitive-behavioral therapy for posttraumatic stress disorder in preschool children: Two case reports. *Journal of Traumatic Stress, 20*(4), 631–636. doi:10.1002/jts.20232

Schlack, R., Peerenboom, N., Neuperdt, L., Junker, S., & Beyer, A. (2021). The effects of mental health problems in childhood and adolescence in young adults: Results of the KiGGS cohort. *PubMed, 6*(4), 3–19. doi:10.25646/8863

Schmeets, & Verheugt-Pleiter, J. E. (Reds.). (2005). *Affectregulatie bij kinderen: Een psychoanalytische benadering* (pp. 92-113). Assen: Koninklijke van Gorcum BV.

Schmidt, E., & Pyers, J. (2014). First-hand sensory experience plays a limited role in children's early understanding of seeing and hearing as sources of knowledge: Evidence from typically hearing and deaf children. *British Journal of Developmental Psychology, 32*(4), 454–467. doi:10.1111/bjdp.12057

Schore, A. N. (1994). *Affect regulation and the origin of the self: The neurobiology of emotional development*. Lawrence Erlbaum Associates, Inc.

Schore, J. R., & Schore, A. N. (2007). Modern attachment theory: The central role of affect regulation in development and treatment. *Clinical Social Work Journal, 36*(1), 9–20. doi:10.1007/s10615-007-0111-7

Schouten, K. A., De Niet, G., Knipscheer, J. W., Kleber, R. J., & Hutschemaekers, G. (2014). The effectiveness of art therapy in the treatment of traumatized adults. *Trauma, Violence & Abuse, 16*(2), 220–228. doi:10.1177/1524838014555032

Schreier, H., Ladakakos, C., Morabito, D., Chapman, L., & Knudson, M. M. (2005). Posttraumatic stress symptoms in children after mild to moderate pediatric trauma: A longitudinal examination of symptom prevalence, correlates, and parent-child symptom reporting. *The Journal of Trauma: Injury, Infection, and Critical Care, 58*(2), 353–363. doi:10.1097/01.ta.0000152537.15672.b7

Schröder-Pfeifer, P., Talia, A., Volkert, J., & Taubner, S. (2018, 18 december). Developing an assessment of epistemic trust: A research protocol. *Research in Psychotherapy: Psychopathology, Process and Outcome, 21*(3). doi:10.4081/ripppo.2018.330

Schweizer, C., Knorth, E. J., & Spreen, M. (2014). Art therapy with children with autism spectrum disorders: A review of clinical case descriptions on 'what works'. *The Arts in Psychotherapy, 41*(5), 577–593. doi:10.1016/j.aip.2014.10.009

Schweizer, C., Knorth, E. J., van Yperen, T. A., & Spreen, M. (2020). Evaluation of 'Images of Self,' an art therapy program for children diagnosed with autism spectrum disorders (ASD). *Children and Youth Services Review, 116*, 105207. doi:10.1016/j.childyouth.2020.105207

Sellers, R., Collishaw, S., Rice, F., Thapar, A. K., Potter, R., Mars, B., & Thapar, A. (2013). Risk of psychopathology in adolescent offspring of mothers with psychopathology and recurrent depression. *British Journal of Psychiatry, 202*(2), 108–114. doi:10.1192/bjp.bp.111.104984

Sharp, C., & Venta, A. (2012). Mentalizing problems in children and adolescents. In N. Midgley & I. Vrouva (Eds.), *Minding the child: Mentalization-based interventions with children, young people and their families* (pp. 35–53). Routledge/Taylor & Francis Group.

Sharp, C., Fonagy, P., & Goodyer, I. M. (2006). Imagining your child's mind: Psychosocial adjustment and mothers' ability to predict their children's attributional response styles. *British Journal of Developmental Psychology, 24*(1), 197–214. doi:10.1348/026151005X82569

Shiota, M. N., Sauter, D., & Desmet, P. (2021). What are 'positive' affect and emotion? *Current Opinion in Behavioral Sciences, 39*, 142–146. doi:10.1016/j.cobeha.2021.03.007

Shirk, S. R., & Karver, M. S. (2003). Prediction of treatment outcome from relationship variables in child and adolescent therapy: A meta-analytic review. *Journal of Consulting and Clinical Psychology, 71*(3), 452–464. doi:10.1037/0022-006x.71.3.452

Shrout, P. E., & Fleiss, J. L. (1979). Intraclass correlations: Uses in assessing rater reliability. *Psychological Bulletin, 86*(2), 420–428. doi:10.1037/0033-2909.86.2.420

Siegel, D. J. (1999). *The developing mind: Toward a neurobiology of interpersonal experience.* Guilford Press.

Simons, A. D., Padesky, C. A., Montemarano, J., Lewis, C. C., Murakami, J., Lamb, K., DeVinney, S., Reid, M., Smith, D. A., & Beck, A. T. (2010). Training and dissemination of cognitive behavior therapy for depression in adults: A preliminary examination of therapist competence and client outcomes. *Journal of Consulting and Clinical Psychology, 78*(5), 751–756. doi:10.1037/a0020569

Sitzer, D. L., & Stockwell, A. B. (2015). The art of wellness: A 14-week art therapy program for at-risk youth. *The Arts in Psychotherapy, 45*, 69–81. doi:10.1016/j.aip.2015.05.007

Smeijsters, H. (2008). *Handboek creatieve therapie* (3de editie). Coutinho.

Smith, J. P., & Smith, G. C. (2010). Long-term economic costs of psychological problems during childhood. *Social Science & Medicine, 71*(1), 110–115. doi:10.1016/j.socscimed.2010.02.046

Smith, L. B., & Thelen, E. (2003). Development as a dynamic system. *Trends in Cognitive Sciences, 7*(8), 343–348. doi:10.1016/s1364-6613(03)00156-6

Snir, S., Regev, D., & Shaashua, Y. H. (2017). Relationships between attachment avoidance and anxiety and responses to art materials. *Art Therapy, 34*(1), 20–28. doi:10.1080/07421656.2016.1270139

Soliman, E. S., Mahdy, R. S., Fouad, H. A., Abbas, R. A., & Fayed, A. (2020). Multiple risk factors affecting childhood psychosocial dysfunction in primary school Egyptian children. *Middle East Current Psychiatry, 27*(1). doi:10.1186/s43045-020-00023-2

Soto-Icaza, P., Aboitiz, F., & Billeke, P. (2015). Development of social skills in children: Neural and behavioral evidence for the elaboration of cognitive models. *Frontiers in Neuroscience, 9*. doi:10.3389/fnins.2015.00333

Sousa, Z., Ribeiro, E., & Horvath, A. (2011, June). Therapeutic responsiveness as a moment-to-moment process of alliance: Development of a conceptual-empirical model and an observational system. *Thesis*. Geraadpleegd op 16 juli 2020 van ResearchGate.

Sowden, P. T., Clements, L., Redlich, C., & Lewis, C. (2015). Improvisation facilitates divergent thinking and creativity: Realizing a benefit of primary school arts education. *Psychology of Aesthetics, Creativity, and the Arts, 9*(2), 128–138. doi:10.1037/aca0000018

Sperber, D., Clement, F., Heintz, C., Mascaro, O., Mercier, H., Origgi, G., & Wilson, D. (2010). Epistemic vigilance. *Mind & Language, 25*(4), 359–393. doi:10.1111/j.1468-0017.2010.01394.x

Spinrad, T. L., Stifter, C. A., Donelan-McCall, N., & Turner, L. (2004). Mothers' regulation strategies in response to toddlers' affect: Links to later emotion self-regulation. *Social Development, 13*(1), 40–55. doi:10.1111/j.1467-9507.2004.00256

Spreen, M. (2009). De meerwaarde van een N=1 benadering (lectoraatsrede). In A. Schokker (Ed.), *De systemische N=1: Verkenningen in de praktijk* (pp. 12-27). Stenden University of Applied Sciences.

Sroufe, L. A., Carlson, E. A., Levy, A. K., & Egeland, B. (1999). Implications of attachment theory for developmental psychopathology. *Development and Psychopathology, 11*(1), 1–13. doi:10.1017/s0954579499001923

Stafstrom, C. E., Havlena, J., & Krezinski, A. J. (2012). Art therapy focus groups for children and adolescents with epilepsy. *Epilepsy & Behavior, 24*(2), 227–233. doi:10.1016/j.yebeh.2012.03.030

Stake, R. E. (2005). Qualitative case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 443-466). Sage Publications.

Steiert, A. (2015). Helden(–bilder) als emotionale Unterstützung in der Kunsttherapie mit Kindern und Jugendlichen im Kontext lebensbedrohlicher Erkrankungen. *Musik-, Tanz- Und Kunsttherapie, 26*(1), 24–28. doi:10.1026/0933-6885/a000159

Stein, D. J., Phillips, K. A., Bolton, D., Fulford, K. W. M., Sadler, J. Z., & Kendler, K. S. (2010). What is a mental/psychiatric disorder? From DSM-IV to DSM-V. *Psychological Medicine, 40*(11), 1759–1765. doi:10.1017/s0033291709992261

Stern, D. N. (1985). *The interpersonal world of the infant: View from psychoanalysis and development psychology.* Basic Books.

Stern, D. N. (2004). *The present moment in psychotherapy and everyday life.* W. W. Norton.

Stern, D. N. (2010). *Forms of vitality.* Oxford University Press.

Stirman, S. W., Baumann, A. A., & Miller, C. J. (2019). The FRAME: An expanded framework for reporting adaptations and modifications to evidence-based interventions. *Implementation Science, 14*(1). doi:10.1186/s13012-019-0898-y

Struik, R. P. K. (2021). *Slapende honden? Wakker maken!* Pearson.

Stuckey, H. L., & Nobel, J. (2010). The connection between art, healing, and public health: A review of current literature. *American Journal of Public Health, 100*(2), 254–263. doi:10.2105/AJPH.2008.156497

Sullivan, R., Perry, R., Sloan, A., Kleinhaus, K., & Burtchen, N. (2011). Infant bonding and attachment to the caregiver: Insights from basic and clinical science. *Clinics in Perinatology, 38*(4), 643–655. doi:10.1016/j.clp.2011.08.011

Sushma, B., Gadiraju, P., & Agarwal, S. (2016). Well-being, psychosocial problems and social interaction anxiety in children. *International Journal of Indian Psychology, 3*(4). doi:10.25215/0304.060

Tandon, M., Cardeli, E., & Luby, J. L. (2009). Internalizing disorders in early childhood: A review of depressive and anxiety disorders. *Child and Adolescent Psychiatric Clinics of North America, 18*(3), 593–610. doi:10.1016/j.chc.2009.03.004

Tang, Y., Hölzel, B. K., & Posner, M. I. (2015). The neuroscience of mindfulness meditation. *Nature Reviews Neuroscience, 16*(4), 213–225. doi:10.1038/nrn3916

Teel, S. (2007). *Defending and parenting children who learn differently.* Praeger.

Tenny, S., Brannan, J. M., & Brannan, G. D. (2024). *Qualitative study*. StatPearls Publishing. Geraadpleegd van StatPearls.

Ter Haar-Pomp, L., de Beer, C., van der Lem, R., Spreen, M., & Bogaerts, S. (2015). Monitoring risk behaviors by managing social support in the network of a forensic psychiatric patient: A single case analysis. *The Journal of Forensic Psychology Practice, 15*(2), 114–137. doi:10.1080/15228932.2015.1007779

Thapar, A., Collishaw, S., Pine, D. S., & Thapar, A. (2012). Depression in adolescence. *The Lancet, 379*(9820), 1056–1067. doi:10.1016/s0140-6736(11)60871-4

Thomas, B. H., Ciliska, D., Dobbins, M., & Micucci, S. (2004). A process for systematically reviewing the literature: Providing the research evidence for public health nursing interventions. *Worldviews on Evidence-Based Nursing, 1*(3), 176–184. doi:10.1111/j.1524-475x.2004.04006.x

Thompson, R. A. (2011). Emotion and emotion regulation: Two sides of the developing coin. *Emotion Review, 3*(1), 53-61. doi:10.1177/1754073910380969

Thompson, R. A. (2014). Stress and child development. *The Future of Children, 24*(1), 41–59. Geraadpleegd van JSTOR.

Thompson, R. A., Virmani, E. A., Waters, S. F., Raikes, H. A., & Meyer, S. (2013). The development of emotion self-regulation: The whole and the sum of the parts. In Handbook of self-regulatory processes in development (pp. 5–26). doi:10.4324/9780203760073

Tibbets, T. J., & Stone, B. (1990). Short-term art therapy with seriously emotionally disturbed adolescents. *The Arts in Psychotherapy, 17*(2), 139–146.

Timalsina, M., Kafle, M., & Timalsina, R. (2018). Psychosocial problems among school going adolescents in Nepal. *Psychiatry Journal, 2018*, 1–6. doi:10.1155/2018/4675096

Toth, S. L., & Cicchetti, D. (1999). Developmental psychopathology and child psychotherapy. In *Issues in clinical child psychology* (pp. 15–44). doi:10.1007/978-1-4615-4755-6_2

Tronick, E., & Beeghly, M. (2011). Infants' meaning-making and the development of mental health problems. *American Psychologist, 66*(2), 107–119. doi:10.1037/a0021631

Tronick, E. Z. (1989). Emotions and emotional communication in infants. *American Psychologist, 44*(2), 112–119. doi:10.1037/0003-066x.44.2.112

Van den Bos, G. (2006). *APA dictionary of psychology*. American Psychological Association.

Van Hooren, S., van Busschbach, J., Waterink, W., & Abbing, A. (2021). Werkingsmechanismen van vaktherapie: Naar een onderbouwing en verklaring van effecten – work in progress. *Tijdschrift voor Vaktherapie, 17*(2). ISSN 1871-5052.

Van Lith, T. (2016). Art therapy in mental health: A systematic review of approaches and practices. *The Arts in Psychotherapy, 47*, 9–22. doi:10.1016/j.aip.2015.09.00

Van Lith, T., Schofield, M. J., & Fenner, P. (2012). Identifying the evidence-base for art-based practices and their potential benefit for mental health recovery: A critical review. *Disability and Rehabilitation, 35*(16), 1309–1323. doi:10.3109/09638288.2012.732188

Van Lith, T., Quintero, Á., Pizzutto, E., & Grzywacz, J. G. (2018). "Vamos a la Escuelita Arte Terapia": An art therapy protocol for promoting resilience with Latino farm worker children. *Journal of Infant, Child, and Adolescent Psychotherapy, 17*(3), 213–228. doi:10.1080/15289168.2018.1490068

Van Yperen, T. A., & Veerman, J. W., & Bijl, B. (Eds.). (2017). *Zicht op effectiviteit. Handboek voor resultaatgerichte ontwikkeling van interventies in de jeugdzorg* (2nd ed.). Lemniscaat.

Van Yperen, T., Veerman, J. W., & Van Den Berg, G. (2015). Elementen die er toe doen. Geraadpleegd van ZonMW.

Veldman, K., Reijneveld, S. A., Almansa Ortiz, J., Verhulst, F. C., & Bültmann, U. (2015). Mental health trajectories from childhood to young adulthood affect the educational and employment status of young adults: Results from the TRAILS study. *Journal of Epidemiology and Community Health, 69*(6), 588–593. doi:10.1136/jech-2014-204421

Veríssimo, M., Santos, A. J., Fernandes, C., Shin, N., and Vaughn, B. E. (2014). Associations between attachment security and social competence in preschool children. *Merrill-Palmer Q.* 60:80. doi: 10.13110/merrpalmquar1982.60.1.0080

Vliegen, N., Meurs, P., Van Lier, L., & Van Lier, L. (2009). *Geduldig gereedschap*. Acco.

Vliegen, N., Tang, E., & Meurs, P. (2017). *Van kwetsuur naar litteken*. Pelckmans Pro.

Vogels, A. G. C. (2008). *The Identification by Dutch Preventive Child Health Care of Children With Psychosocial Problems: Do Short Questionnaires Help*? (Thesis). Faculty of Medical Sciences, University Medical Center Groningen, The Netherlands.

Vostanis, P., Graves, A., Meltzer, H., Goodman, R., Jenkins, R., & Brugha, T. (2006). Relationship between parental psychopathology, parenting strategies and child mental health. *Social Psychiatry and Psychiatric Epidemiology*, *41*(7), 509–514. https://doi.org/10.1007/s00127-006-0061-3

Wadlinger, H. A., & Isaacowitz, D. M. (2010). Fixing our focus: training attention to regulate emotion. *Personality and Social Psychology Review*, *15*(1), 75–102. https://doi.org/10.1177/1088868310365565

Wallace, J., Packman, W., Huffman, L. C., Horn, B., Cowan, M., Amylon, M. D., Moses, J. (2014). Psychosocial Changes Associated With Participation in Art Therapy Interventions for Siblings of Pediatric Hematopoietic Stem Cell Transplant Patients. *Art Therapy*, *31*(1), 4–11. doi.org/10.1080/07421656.2014.873685

Waller, D. (2006). Art Therapy for Children: How It Leads to Change. *Clinical Child Psychology and Psychiatry*, *11*(2), 271–282.doi.org/10.1177/1359104506061419

Wandersman, A., Duffy, J., Flaspohler, P., Noonan, R., Lubell, K., Stillman, L., ... & Saul, J. (2008). Bridging the gap between prevention research and practice: The interactive systems framework for dissemination and implementation. American Journal of Community Psychology, 41(3-4), 171-181. https://doi.org/10.1007/s10464-008-9174-z

Weist, M. D., Eber, L., Horner, R. H., Splett, J. W., Putnam, R. D., Barrett, S. V., Perales, K., Fairchild, A. J., & Hoover, S. (2018). Improving Multitiered Systems of Support for Students With "Internalizing" Emotional/Behavioral Problems. *Journal of Positive Behavior Interventions*, *20*(3), 172–184. https://doi.org/10.1177/1098300717753832

Weisz J. R. (2014). Building Robust Psychotherapies for Children and Adolescents. *Perspectives on psychological science: a journal of the Association for Psychological Science*, *9*(1), 81–84. https://doi.org/10.1177/1745691613512658

Weisz, J. R., Sandler, I. N., Durlak, J. A., & Anton, B. S. (2005). Promoting and protecting youth mental health through evidence-based prevention and treatment. American Psychologist, 60(6), 628-648.

WHO. (2020). *World health statistics 2020 : Monitoring health for the SDGs*. United Nations Digital Library System. https://digitallibrary.un.org/record/3897953?v=pdf

Wight, D., Wimbush, E., Jepson, R., & Doi, L. (2015). Six steps in quality intervention development (6SQuID). *Journal of Epidemiology and Community Health*, *70*(5), 520–525. https://doi.org/10.1136/jech-2015-205952

Williams, J. H., Huggins, C. F., Zupan, B., Willis, M., van Rheenen, T. E., Sato, W., Palermo, R., Ortner, C., Krippl, M., Kret, M., Dickson, J. M., Li, C. S. R., & Lowe, L. (2020). A sensorimotor control framework for understanding emotional communication and regulation. *Neuroscience & Biobehavioral Reviews*, *112*, 503–518. https://doi.org/10.1016/j.neubiorev.2020.02.014

Wilmots, E., Midgley, N. G., Thackeray, L., Reynolds, S., & Loades, M. (2020). The therapeutic relationship in Cognitive Behaviour Therapy with depressed adolescents: A qualitative study of good-outcome cases. *Psychology and Psychotherapy, Theory, Research and Practice*, *93*(2), 276–291. https://doi.org/10.1111/papt.12

World Health Organization. (2018, September 28). Child and adolescent mental health. Retrieved August 11, 2020, from https://www.who.int/mental_health/maternal-child/child_adolescent/en/

World Health Organization: WHO. (2021). Mental health of adolescents. *www.who.int*. https://www.who.int/news-room/fact-sheets/detail/adolescent-mental-health

Wright, A. (2023). The impact of art therapy with an autistic person with learning disabilities: assessing the development of communication abilities and emotional regulation. *International Journal of Art Therapy*, 1–13. https://doi.org/10.1080/17454832.2023.2172439

Wright, A. G. C., & Simms, L. J. (2015). A meta structural model of mental disorders and pathological personality traits. *Psychological Medicine*, *45*(11), 2309–2319. https://doi.org/10.1017/s0033291715000252

Wyman, P. A., Cross, W., Hendricks Brown, C., Yu, Q., Tu, X., & Eberly, S. (2010). Intervention to Strengthen Emotional Self-Regulation in Children with Emerging Mental Health Problems: Proximal Impact on School Behavior. *Journal of Abnormal Child Psychology*, *38*(5), 707–720. https://doi.org/10.1007/s10802-010-9398-x

Yasenik, L., and Gardner, K. (2012). *Play Therapy Dimension Model: A decision making guide for integrative play therapists* (2nd ed.) Philadelphia, PA; Jessica Kingsley.

Zimmer-Gembeck, M. J., & Skinner, E. A. (2016). The development of coping: Implications for psychopathology and resilience. In D. Cicchetti (Ed.), *Developmental psychopathology: Risk, resilience, and intervention* (3rd ed., pp. 485–545). John Wiley & Sons, Inc.. https://doi.org/10.1002/9781119125556.devpsy410

Zimmerman, B. J. (2000). Attaining Self-Regulation. In *Elsevier eBooks* (pp. 13–39). https://doi.org/10.1016/b978-012109890-2/50031-7

Zimmerman, Elyssa Louise, "The Effect of Inconsistent Therapy Attendance by Client and Therapist on Therapeutic Outcomes" (2019). Theses and Dissertations. 8630. https://scholarsarchive.byu.edu/etd/8630

Zimmermann, P., & Iwanski, A. (2014). Emotion regulation from early adolescence to emerging adulthood and middle adulthood: Age differences, gender differences, and emotion-specific developmental variations. *International Journal of Behavioral Development*, *38*(2), 182–194. https://doi.org/10.1177/0165025413515405

OVER DE AUTEUR

Liesbeth Bosgraaf werd geboren in Drachten, Friesland, op 5 augustus 1967. Ze volgde haar middelbare schoolopleiding aan de LEAO en VHBO. Daarna, in 1994 behaalde ze haar bachelor in, toen nog, Creatieve Therapie. Na jaren werkervaring opgedaan te hebben als beeldend therapeut in diverse sectoren zoals de verstandelijk gehandicaptenzorg, jeugdzorg en GGZ in Noord-Nederland, besloot Liesbeth om haar expertise verder te verdiepen. Ze rondde in 2012 haar masteropleiding Vaktherapie af aan Hogeschool Zuyd, wat haar interesse in onderzoek verder aanwakkerde.

Liesbeth heeft bij verschillende organisaties gewerkt, waaronder voormalig DAG-Friesland in Franeker en Leeuwarden (later Alliade), De Swaai/GGZ Friesland in Beetsterzwaag, Tjallingahiem/Reik in Leeuwarden, en als beleidsadviseur vaktherapie bij Alliade in Heerenveen. Momenteel is ze coördinator onderzoek, docent, en onderzoeker voor de opleiding Vaktherapie aan NHL Stenden Hogeschool.

Sinds 2016 richt Liesbeth haar onderzoek op de werkzame elementen van beeldende therapie voor kinderen en adolescenten. Ze zet zich in voor de positionering en profilering van vaktherapie in de zorg voor kinderen en adolescenten die onvoldoende baat hebben bij traditionele therapieën. Haar interessegebieden zijn zelfregulatie, ontwikkelingsproblematiek, en vroegkinderlijk trauma, waarbij ze methoden gebruikt die toepasbaar zijn in de vaktherapeutische praktijk, zoals Multiple Baseline N=1 en SCED.

Liesbeth is lid van KenVak, het Nederlands onderzoekscentrum van de vaktherapieën en heeft deel jarenlang deel uitgemaakt van het Lectoraat N=1 van Marinus Spreen, waar ze bijdroeg aan de ontwikkeling van N=1-onderzoek binnen het bachelor onderwijs Vaktherapie.

In haar persoonlijke leven is Liesbeth getrouwd met Sebastiaan en ze hebben drie zonen: Jurre, Rienk en Tymen. Ze geniet van schilderen, tekenen, wandelen met haar hond, koken, tuinieren en lezen.

ABOUT THE AUTHOR

Liesbeth Bosgraaf was born in Drachten, Friesland, on August 5, 1967. She completed her secondary education at LEAO and VHBO. In 1994, she obtained her bachelor's degree in Art Therapy. After gaining years of work experience as an art therapist in various sectors, such as care for individuals with intellectual disabilities, youth care, and mental health care in the northern Netherlands, she decided to further her expertise. In 2012, she completed her master's degree in Arts Therapies at Hogeschool Zuyd, which sparked her interest in research.

Liesbeth has worked at several organizations, including the former DAG-Friesland in Franeker and Leeuwarden (now Alliade), De Swaai/GGZ Friesland in Beetsterzwaag, Tjallingahiem/Reik in Leeuwarden, and as a policy advisor for arts therapy at Alliade in Heerenveen. Currently, she serves as the coordinator of research, lecturer, and researcher for the Arts Therapies program at NHL Stenden University of Applied Sciences.

Since 2016, Liesbeth has focused her research on the effective elements of art therapy for children and adolescents. She is committed to the positioning and profiling of arts therapies for children and adolescents who do not benefit from traditional therapies. Her areas of interest include self-regulation, developmental issues, and early childhood trauma, using methods applicable to arts therapy practice, such as Multiple Baseline N=1 and SCED.

Liesbeth is a member of KenVak, the Dutch research center for arts therapies, and for many years was part of the research group N=1 led by Marinus Spreen, where she contributed to the development of N=1 research within the bachelor's education in Arts Therapies.

In her personal life, Liesbeth is married to Sebastiaan, and they have three sons: Jurre, Rienk, and Tymen. She enjoys painting, drawing, walking with her dog, cooking, gardening, and reading.

DANKWOORD

Met de afronding van dit proefschrift wil ik graag een moment nemen om iedereen te bedanken die mij tijdens dit traject heeft gesteund en begeleid. Nooit had ik gedacht dat ik de kans zou krijgen om dit te mogen en kunnen doen. Vroeger had ik altijd de droom om een boek te schrijven, een roman weliswaar, maar dat dit mijn eerste boek zou worden, had ik nooit kunnen bedenken.

Allereerst wil ik mijn promotor, Susan van Hooren, bedanken. Susan, jouw geduld, altijd bereikbaar zijn, opbeurende woorden en vertrouwen in mijn kunnen hebben mij enorm gesteund. Marinus Spreen, jouw analytische blik en inzichten hebben mij telkens weer aan het denken gezet en mijn denkproces verdiept. Kim Kroes-Pattiselanno, jouw beschikbaarheid voor moeilijke vragen, het laten nadenken over mijn eigen proces en de geruststellende woorden dat ik het écht wel kon (en dat statistiek niet zo moeilijk is), waren onmisbaar voor dit onderzoek.

Ik weet dat ik tijdens dit traject niet altijd de makkelijkste was. Af en toe misschien een tikje dwingend en controlerend. Daarom waardeer ik des te meer jullie geduld en steun, zelfs als ik soms de neiging had om de teugels net iets te strak aan te trekken.

Daarnaast wil ik mijn voormalig teamleidster, Hilda Elzinga, inmiddels een goede vriendin, bedanken voor het vertrouwen in mijn kunnen, het bieden van een luisterend oor en vooral het geven van ruimte om dit onderzoek mogelijk te maken. Mijn huidige teamleider, Anne, wil ik danken voor het in mijn kracht zetten en de steun die ik ontvang voor mijn verdere ambities. Ook mijn collega's, die keer op keer mijn geklaag over de hoeveelheid werk hebben moeten aanhoren: jullie steun en praatjes op de werkvloer hebben veel voor mij betekend.

Corinne, ontzettend bedankt voor jouw hulp bij de kwalitatieve analyses. Jouw steun en expertise hebben een waardevolle en verdiepende bijdrage geleverd aan dit onderzoek. Corinne, Elske en Geerte, jullie waren er altijd, ook al heb ik jullie niet de aandacht kunnen geven die jullie verdienen. Jullie betrokkenheid, belangstelling en niet-aflatende aanmoediging hebben mij door moeilijke momenten heen geholpen. De gesprekken, etentjes, even shoppen en leuke uitjes waren van onschatbare waarde in deze periode.

Mijn dank gaat ook uit naar de betrokken instellingen, therapeuten, ouders, leerkrachten/professionals en natuurlijk de kinderen en adolescenten. Zonder jullie medewerking en betrokkenheid zou dit onderzoek onmogelijk zijn geweest. Jullie hebben mij eraan herinnerd waarom ik dit werk doe: om kinderen in hun kracht te zetten die als moeilijk worden beschouwd en het gevoel hebben nergens goed voor te zijn.

En dan NHLStenden, in de persoon van eerst Alie Schokker en nu Reinskje Suierveld, en Zorggroep Alliade, zonder wiens (financiële) steun en vertrouwen dit geheel niet mogelijk was. Dank dat jullie mij deze kans hebben geboden.

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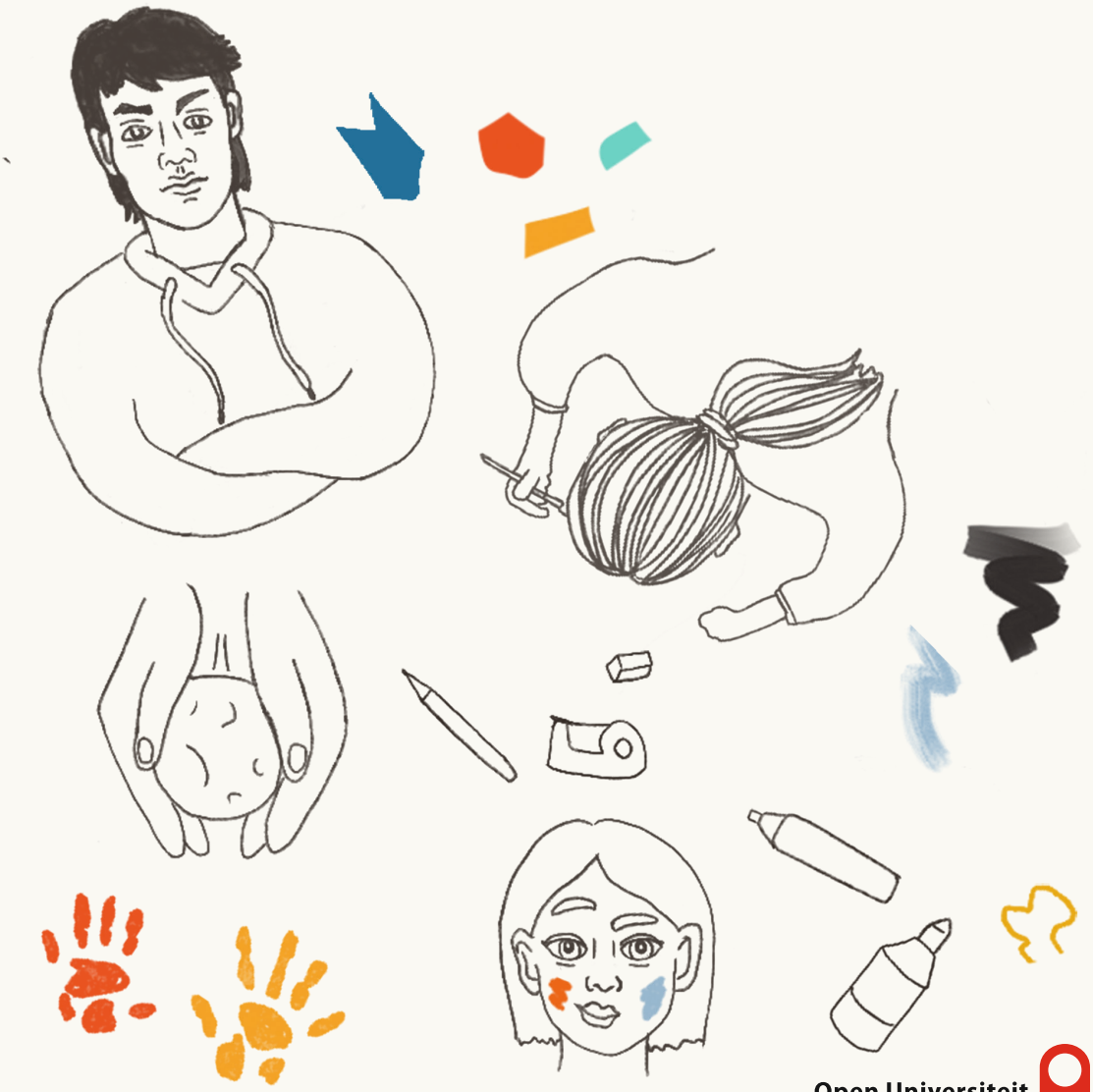
En tot slot, voor al die mensen die ik vergeet te noemen. Weet dat ik jullie zeer waardeer en dat jullie bijdrage niet onopgemerkt is gebleven.

“De enige weg naar het ontdekken van grenzen van het mogelijke is om een stukje voorbij het onmogelijke te gaan.”
– Arthur C. Clarke

De foto’s in dit proefschrift zijn afkomstig van (een deel van) de kinderen en adolescenten die hebben deelgenomen aan de effectstudie. Met hun creatieve bijdragen geven zij niet alleen uitdrukking aan hun ervaringen, maar verrijken zij ook het onderzoek en de inzichten die in dit werk worden gepresenteerd. Hun toestemming en betrokkenheid worden hierbij zeer gewaardeerd.

Psychosocial problems in children and adolescents can profoundly impact their development. The Affect Regulating Arts Therapies (ArAT) program was developed in the Netherlands to address these challenges. A process evaluation revealed that the therapeutic actions outlined in the theoretical framework are being implemented in practice, with tension-regulating interventions applied most frequently. Participants expressed their satisfaction with the ArAT, highlighting benefits such as acknowledgment of the child/adolescent, non-verbal work, art creation, and parental involvement. A systemic multiple case study showed that the ArAT reduced psychosocial problems and had a positive impact on problems identified at intake. Further research is needed to explore the generalizability of these effects and identify key working elements.



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