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Exploring What Works in Art Therapy With Children With Autism: Tacit Knowledge of Art Therapists

Celine Schweizer, Marinus Spreen, and Erik J. Knorth

Abstract

Children with autism spectrum disorders (ASD) are often referred to art therapy. To investigate what works in art therapy with children with ASD, the tacit knowledge of 8 experienced art therapists was explored through interviews. Promising components were arranged into the Context and Outcomes of Art Therapy (COAT) model. According to the respondents, art therapy with children with ASD contributes to becoming more flexible and expressive, more relaxed, and more able to talk about their problems in the therapeutic setting as well as in their home situation. Considering the evidence in this study, further empirical research into the process and outcomes of art therapy with children with ASD is strongly recommended.

Children diagnosed with autism spectrum disorders (ASD) have qualitative limitations in social communicative skills and often exhibit stereotypic and repetitive patterns in behavior, interests, and activities (American Psychiatric Association, 2013; De Bildt et al., 2007; Doreleijers, Boer, Huisman, Vermeiren, & De Haan, 2006; Rozga, Andersson, & Robons, 2011). These children have atypical ways of information processing. Three concepts of information processing are often described as characteristic of the problems of children diagnosed with ASD (Swaab, 2007). The first concept, theory of mind, refers to difficulties in understanding feelings, thoughts, ideas, and intentions of themselves and others (Baron-Cohen, 2000; Lucangeli, 2007). The second concept relates to deficits in executive functioning, which implies that children with ASD have problems with planning and cognitive flexibility (Ozonoff, Pennington, & Rogers, 1991; Rozga et al., 2011). The last concept refers to a weak central coherence: the inability to interpret details as part of a broader context or system. Atypical sensory processing is a core feature and appears as children's high or low sensitivity to environmental stimuli (Happé & Frith, 2006; Kenet, 2011; Mottron, Dawson, Soulières, Hubert, & Burack, 2006; Rozga et al., 2011).

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In a Delphi study on art therapy research, experts placed the importance of research with individuals with ASD as third in importance (Elkins & Deaver, 2010; Kaiser & Deaver, 2013). In a recent review, Schweizer, Knorth, and Spreen (2014) found no experimental study testing outcomes or effects of art therapeutic interventions for children with autism, although one was published later. Schweizer et al. (2014) found only a small number of well-documented case descriptions. This lack of evidence can probably be explained by the traditional emphasis on tacit knowledge that art therapists claim to have at their disposal (Korthagen, Kessels, Koster, Lagerwerf, & Wubbels, 2001; Polanyi, 1967; Smeijsters & Cleven, 2006). Indeed, non-verbal or art-based expressions and attunement to clients refer to processes that largely depend on personal orientations of therapists, which are presumed difficult to measure quantitatively. Also, subjectivity in therapeutic measurements might be an issue that has contributed to the lack of investigation and measurement of art therapy processes (Veerman & Van Yperen, 2007). Despite these factors it remains important to know whether art therapy contributes to successful treatment of children with ASD.

The purpose of our study was to find and define promising practice-based elements or components that could contribute to practice-based evidence of art therapy with children with autism. Information was obtained from experienced art therapists who worked with these children. Research on treatment for children with autism is scant (Boendermaker et al., 2007; Schothorst et al., 2009; Schweizer et al. 2014; Slayton, D'Archer, & Kaplan, 2010). One experimental study ($N = 19$) was found about art therapy used for stimulating recognition of emotions in facial expressions (Richard, More, & Joy, 2015).

Children with autism are regularly referred to art therapy (Martin, 2009; Teeuw, 2011) with the aim to aid in coping with their communication problems, behavioral problems, and low self-esteem (Schweizer, 2014; Schweizer et al., 2014). Martin (2009) indicated that art is an expressive means used by different professionals working with children with ASD. She stated that there are many interesting publications on successful treatment stories but systematic research is lacking. This research is needed to specify and underpin the contribution of art therapy with children with ASD.

Children with ASD are expected to benefit from a non-verbal treatment such as art therapy because experiences that involve touching, looking at, and shaping art materials enable expression (Malchiodi, 2003; Rubin, 2001;

Schweizer et al., 2009). This could stimulate development and reduce some problem behaviors. Gilroy (2006) argued that art therapy can move children with autism beyond stereotypical behaviors and encourage sensory, perceptual, and cognitive development.

In a small-scale, quasi-experimental study, some evidence was found that the arts therapies (music therapy, drama therapy, and art therapy, as well as psychomotor therapy) might contribute to positive changes in social behavior, attention span, and relaxation (Pioch, 2010). A pre- and posttest design was conducted with 28 children in an experimental condition and 6 in a wait-list control group; all were diagnosed with ASD in a school for special education. Teachers and arts therapists completed a range of standardized tests. Because the experimental condition in this study contained a mix of drama therapy, music therapy, art therapy, and psychomotor therapy, it is difficult to unravel the effects of the different therapies.

In another small study, Teeuw (2011) surveyed treatment aims and outcomes among members of the Dutch Organization of Art Therapists (Nederlandse Vereniging Beeldend Therapeuten [NVBT]). Twenty-eight art therapists working with children with ASD responded to Teeuw's survey and results revealed that the main reasons children with ASD were referred to art therapy were social problems, lack of awareness of their own (problematic) behavior, difficulties with expressing themselves, stress, problems with focusing attention, low frustration tolerance, rigid behavior, and problems with planning and reality testing. Often these children were unhappy and had low self-esteem. The art therapy treatment goals identified were the development of possibilities as well as an increasing ability to deal with disappointments, the development of self-image and self-esteem, learning to look at and listen to others, learning to ask for help and to develop a cooperative attitude, learning to set limitations, developing problem-solving capacities, expressing emotions, becoming better at distinguishing reality from fantasy, having a greater attention span, having fewer fears, and showing better frustration tolerance and more flexible behavior.

Children with autism experience problems that are often related to information processing, which has far-reaching consequences for their understanding of themselves and the world around them. There are some indications that art therapy might provide a pathway for these children to cope with some of their problems.

Because of a lack of empirical knowledge on art therapy with children diagnosed with ASD, one of the initial steps that might be taken to gain more insight into what this treatment actually implies is to take a closer look at the experiences of art therapy practitioners to discover their experiences closely. Art therapists partly work by intuition (Smeijsters & Cleven, 2006). Reproduction of and reflection on their actions in therapy generates valuable information that could be described as articulating tacit knowledge (Polanyi, 1967). Our study is a first step in exploring promising components

of art therapeutic treatment with children with ASD to develop an evidence-based protocol in the next stage of building evidence. Therefore, we explore the tacit knowledge of art therapists concerning what they consider relevant elements or components in art therapy with children with ASD. More specifically, the following topics were addressed: the opportunities these children might encounter to express themselves in art therapy, the appearance of these children's problems while using art materials, the repertoire of actions the art therapist uses in treatment, the context and conditions of treatment that could stimulate behavioral change for these children, and the typical personal and behavioral characteristics of these children that are sensitive to change by art therapeutic interventions.

Method

This study was conducted in accordance with a qualitative, practice-based research methodology based on grounded theory (Charmaz, 2006; Linesch, Aceves, Quezada, Trochez, & Zuniga, 2012; Metzl, 2015; Pénczes, Van Hooren, Dokter, Smeijsters, & Hutschemaekers 2014; Strauss & Corbin, 1998). With a bottom-up approach, a theoretical frame about working elements in art therapy with children diagnosed with ASD was elaborated based on the data.

Participants

Eight art therapists were selected from the professional network of the first author using convenience sampling (Babbie, 2001). The main criterion for inclusion was having at least 2 years of experience as an art therapist with the target group, children diagnosed with ASD who were 8 to 12 years old with normal or high intelligence. The children varied in terms of specific behaviors, interests, and intellectual potential. To ensure a diversity of settings, art therapists from three different work venues were selected: Two were schools for students receiving special education, three were private practices, and three were day treatment clinical settings in the four northern regions of the Netherlands. All therapists were (associated) registered members of the national professional art therapy organization, had at least 2 years of supervised experience, and were female (there are few male art therapists in the country).

Procedure

This study was exempt from institutional review because it used anonymous examples from anonymous participants. Data were collected from November to December 2011. Therapists participated in a 90-min, semistructured, in-depth interview (Charmaz, 2006) during which they were asked for their opinions and experiences with working with children with ASD. Each interview started with a general question: What are typical characteristics of the art of children with ASD in art therapy? Subsequently, the

following topics were explored: reasons why these children were referred to art therapy, including their context; conditions of treatment, including duration and phasing; methods used; therapists' behavior and activities; and treatment results. Special attention was given to typical examples of sensory experiences with art materials, planning skills, and collaboration skills. Each respondent was specifically asked what makes art therapy appropriate or inappropriate for children with ASD. Finally, respondents were invited to support and clarify their stories by showing art therapeutic products of the children concerned. All interviews were audio-recorded.

Data Analysis

Interviews were transcribed verbatim and analyzed with an inductive strategy in different stages (Charmaz, 2006; Strauss & Corbin, 1998). First, significant statements and meanings of the respondents were identified, defined, and interpreted by repeatedly reading the transcripts. Second, codes and categories emerged by comparing texts, research topics, and the codes and categories (Bryant & Charmaz, 2007). During this first stage of open coding, each of the eight interviews resulted in 50 to 80 codes. Third, in a process of constant comparison (Charmaz, 2006), codes were compared and adapted, guided by an analysis of content, and (re)labeled anew with names such as success experiences, themes, symbols, fantasies in artwork, and structuring or supportive interventions. As a final fourth step, coded text fragments were related to each other and organized in a hierarchy of main and subcategories (i.e., axial coding).

During data gathering and analysis, considerations for coding and categorizing were secured in memos stored digitally as well as on paper. To ensure reliability of data processing and interpretation, the transcripts and coded texts were controlled by the respondents (i.e., member checks were done) and by various rounds of peer reviews (i.e., other researchers critically read the coded texts).

Continuous sorting of data led to a hierarchy of categories that we shaped in a circular scheme or model, which will be explained in the results section. The model clarifies the relations between categories, and appears as a possible theory (Charmaz, 2006).

Results

The data were grouped according to a scheme with four main categories. The first category that emerged in the data analysis was art materials and expressions of the child with autism. The second category that emerged was therapeutic behavior: what strategies the art therapist used to invite the child to express visually. The third category was the influence of the context of the art therapeutic treatment of ASD children: referral, contact with parents, art therapy space, and art materials. Finally, the outer ring refers to the outcomes of therapy, which, according to the respondents, are dependent on the other three main categories in the model. Categories

and subcategories in this scheme are based on a varied set of practice examples from the art therapists we interviewed. We titled this the context and outcomes in art therapy (COAT) model with children with ASD seen in Figure 1. The four main categories are used as a frame for presenting our results, and are presented in Tables 1, 2, 3, and 4. We applied a preliminary version of the model in a systematic review of clinical case descriptions (Schweizer et al., 2014).

Art Therapeutic Materials and Expressions

Respondents were asked about the children's behavior in art therapy sessions with respect to their preferences for specific materials, techniques, symbols, or art forms, and what these expressions looked like. Table 1 shows crucial elements according to respondents. Table 1 is divided into two sections: the art-related expressions and the problem-related expressions. One of the responding therapists gave an example of making art as an opportunity to express emotions when frustrated:

Most ASD children have in their mind already what they want to create. When not easily realized, the child has difficulties accepting the situation: materials and tools are bad, I don't have exactly that specific kind of saw as father has at home: "You never have the tools I need . . ."

Therapeutic Behavior of the Art Therapist

The second category that emerged was therapeutic behavior: strategies the art therapist used to invite the child

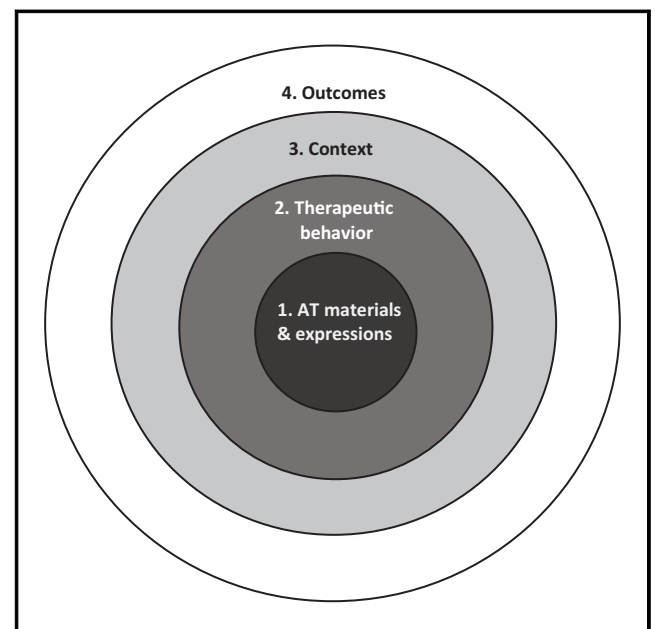


Figure 1. Context and Outcomes in Art Therapy (COAT) Model
Note. AT materials & expressions = art therapeutic means and modes of expression for the child.

Table 1. Category: Art Therapeutic Materials and Expressions

Key Phrases		Statement and Number of Interviews
<p>Enjoyment; taking care of product</p> <p>Sensory elements stimulate change</p> <p>Product offers opportunities to talk</p> <p>Improvement of communication</p>		<p>Child enjoys creating and taking care of the art ($n = 8$).</p> <p>Sensory elements, especially visual and tactile, stimulate change in rigidity ($n = 8$).</p> <p>The product remains after creation, giving concrete opportunities to talk about positive experiences and difficulties ($n = 8$).</p> <p>Communication between art therapist and child improves during art making ($n = 8$).</p>
Subcategory: Learning From Experiences With Art Materials		Subcategory: Art Making Aids Behavior Change
Key Phrases	Statement and Number of Interviews	Key Phrases
<p>Sensory experiences through art</p> <p>Variation in shapes is stimulated</p> <p>Variation in stereotyped images</p>	<p>Extreme responses to materials (total absorption or resistance) is a restricted behavior pattern that improves ($n = 8$).</p> <p>Making more variable shapes is stimulated ($n = 8$).</p> <p>Making variations in stereotypical images is stimulated ($n = 8$).</p>	<p>Development of flexibility</p> <p>Development of coping</p> <p>Development of self-esteem</p> <p>Better focus of attention</p> <p>Development of planning and choice making</p>
		<p>Making art and talking about the process helps child experience alternative behavior ($n = 8$).</p> <p>During art making the child is helped learning to deal with disappointment by trying other solutions ($n = 7$).</p> <p>Success with art contributes to self-esteem and to engaging in more complex activities ($n = 6$).</p> <p>Looking at art, touching materials, and creating art helps focus attention ($n = 5$).</p> <p>Completing art using task sequencing helps develop planning skills ($n = 5$). By providing choices from a selection of colors or materials choice making improves ($n = 4$).</p>

Table 2. Category: Behavior of Art Therapist

Keywords	Statement and Number of Interviewees
Active attunement	Directive and supportive attitude toward perceptions and nonverbal language of the child; verbal and nonverbal attunement during session creates a safe and stimulating environment ($n = 8$).
Structuring activities and time	Time and activities are structured so the child focuses on art making. Materials and themes offered should connect to the inner world of the child with the aim to stimulate varied experiences and expressions. Most art therapists make a plan with the child about something the child wishes to make. This supports understanding whether the child can create what is in his or her mind ($n = 8$).
Sharing experiences	This varies from looking together at the art and at each other to stimulating the child to ask for support when needed ($n = 8$).
Connecting words to experiences	Supporting the child to give words to experiences and offering psychoeducation about ASD stimulates self-acceptance ($n = 6$).

to express visually. In this category the focus is explicitly on the working attitude of the therapists. Table 2 shows four aspects of the working attitude. An art therapist offers verbal support in a structured way and talks with the child about his or her experiences working with art materials. As one of the respondents said:

Giving words to difficult experiences is a quality of art therapy, because while creating something there is always a problem or an impediment. Often something unexpected happens with the material. And because this is not happening in a social relationship, it is not such a burden to talk about it. Giving words to experiences is enabled by the material experiences.

Another explained:

At a certain moment I told him, "You blame the crayon, you blame the paper, and it fits with having [this diagnosis], to blame everything around you. You are right, the material is not easy to use. But now you are 12 years old, and close to puberty and high school. So now you should start looking at your own part and what your influence could be for a positive change in this situation.

Context

Table 3 provides information about the third circle in Figure 1, reasons for the child's referral and source of

Table 3. Category: Context of Art Therapy

Keywords	Statement and Number of Interviewees
Referral procedure	A clear referral procedure with explicit entry criteria was not mentioned. Child brings a letter from the teacher to the art therapist; a school or a social worker refers to a private practice; a social worker refers to art therapy ($n = 8$).
Reasons for referral	Problem behaviors at home, self-image, difficulties understanding social situations, difficulty focusing, insecurity ($n = 8$).
Treatment aims	Expressing feelings, improving flexibility, improving self-esteem, improving planning skills, and empowerment ($n = 8$).

Table 4. Category: Outcomes of Art Therapy

Keywords	Statement and Number of Interviewees
Improved expression	Children become more expressive, make art that is more personal, verbalize more about problems such as being bullied, experiencing divorce, or loss of family member ($n = 8$).
Improved self-image	Children learn how to deal with anger and frustration, how to direct attention, as their enjoyment of art activities grows. They are more able to consider their behaviors and how to function better; their self-esteem and self-confidence improve ($n = 8$).
Improved flexibility	As part of more flexible behavior, children are more relaxed, can make choices more easily, and are better at planning ($n = 8$).
Transfer of improvement	Improved skills and behavior reported by parents and teachers ($n = 8$).

referral. We asked these questions: Are there specific indications for art therapy to help children diagnosed with ASD with their problems? Are there specific behaviors of the child diagnosed with ASD to decide that art therapy might offer opportunities for behavioral change? No respondents mentioned specific indications for art therapy treatment and referrals were received from teachers or social workers. As one explained, "We mainly work with referrals about the behavior of the child, such as the child has problems with reciprocity, attunement, emotion-regulation." Reasons for referral included problem behaviors at home, self-image and self-esteem difficulties, difficulty focusing, difficulty understanding social situations, feelings of insecurity, need to improve planning skills, and need to improve self-expression.

Outcomes

Respondents were invited to talk about what they conceived of as typical art therapy outcomes and in what way these outcomes were reflected by the art and the child's behavior during art making, and behavioral changes in the classroom and at home. In Table 4 changes in behavior, which are visible during art making, are detailed. Changes included improved expression in art and in talking, improved self-image, and improved flexibility. This example illustrates the transfer of outcomes at home related to reduction of problem behaviors. An art therapist said:

I remember a mother who told me that her son became more flexible: His football shoes don't have to be placed just in the cupboard anymore; they also may be placed in the hall . . . And when we have other peanut butter, my son is not disturbed anymore. And others may even share his peanut butter.

Another therapist talked about a child becoming more expressive: "What parents tell me often is: 'He talks more.' And what they mean is that he talks more about how he feels: Previously the child was closed and the mother felt something was wrong, but had no clue."

Discussion

Our study of the tacit knowledge of art therapists about their work with children with ASD has resulted in new insights on a descriptive level that we organized in a theoretical framework, the COAT model. There was substantial agreement among respondents regarding essential elements of art therapy with these children, despite their diversity in methods and personalities as well as the differences in the children they worked with. This is promising for the development of a treatment protocol (Robey, 2004).

According to the perceptions and experiences of respondents, art therapy could have an effect on reducing behavioral problems of children with autism in specific problem areas, including social communicative behavior, flexibility, and self-image. Art therapy interventions promote facilitating sensory experiences, sharing experiences, focusing attention, and talking about personal issues, and

were reported to contribute to positive changes in behavior, not only during therapeutic sessions but also at home and in the classroom. Other authors have reported similar experiences (Emery, 2004; Gilroy, 2006; Pioch, 2010; Teeuw, 2011). Schweizer et al. (2014) also found comparable behavioral and attitudinal approaches of the therapists themselves. These included active structuring, verbal and nonverbal attunement, and talking about experiences in art and in daily life.

There seem to be positive influences on the child when parents, other family members, educators, and teachers are involved (Schothorst et al., 2009; Verheij, Westermann, & Maurer, 2014). However, working collaboratively with parents was not an issue mentioned by our respondents, although, according to some of the comments in the outcomes category of the COAT model, there was mention of contacts between the art therapist and the parents. This is different from what is recommended in academic and clinical literature with regard to engaging parents or caregivers (Renty & Roeyers, 2006; Simpson, 2005; Whitaker, 2002).

The COAT model shown in Figure 1 organizes and summarizes the data, and contains four layers, thereby emphasizing the interplay of children's expressions, therapists' approaches, contextual conditions, and outcomes. Simpson (2005), in his evaluative assessment of interventions and treatments for young people with ASD, distinguished four categories as a main treatment focus: the physical (e.g., sensory experiences), the cognitive (learning), the behavioral (skills), and the interpersonal (relationship) dimensions. It is interesting to note that, in contrast to most other interventions in the Simpson overview, art therapy does not seem to have one exclusive focus. Considering respondents' answers, they seem to view art therapy as a multifocal intervention, thereby directing themselves to engage the physical (sensory), cognitive, and behavioral aspects of the child's functioning, as well as the relational aspects of the therapy.

Considering some of the problems of children with ASD in information processing related to theory of mind, executive functioning, and central coherence (Rozga et al., 2011), the question remains: To what extent does art therapy help to solve these problems? As respondents reported, the child develops communicative skills through art making that transfer to other situations. Despite theory of mind difficulties, art therapy appears to stimulate developmental possibilities. Art making also seems to activate planning skills (executive functioning). Finally, regarding central coherence, the varied sensory experiences of children in art therapy can be interpreted as stimulating the focusing of attention and broadening of their repertoire of preferences.

Tacit knowledge of the experts we interviewed was systematically brought to the surface. The tacit knowledge that emerged in this study has resulted in coherent and plausible findings, thereby outlining crucial, practice-based elements and conditions for art therapy with children with ASD, fulfilling Martin's (2009) emphasis that more empirical findings about art therapy and ASD are needed. Together with the results of a systematic review of clinical case descriptions on art therapy with these children (Schweizer et al., 2014), an important step has been taken

toward identifying what works in art therapy with children with autism.

This study is a step toward developing an evidence-based intervention. We developed the COAT model using some elements comparable with intervention mapping techniques (Bartholomew, Parcel, Kok, & Gottlieb, 2001). These techniques imply that an intervention is described in terms of its core aspects at a microlevel (what's being done in therapy), its systemic and institutional aspects at a meso-level (what institutional conditions are key), and its position in a scientific and societal context (what is the evidence of benefits and costs) at a macrolevel.

The study also has limitations. First, differences in features of children with ASD and their problems were not taken into account explicitly. No child with ASD is equal to another (Fein, 2011; Nieweg, 2013). Although there was a certain amount of agreement in respondents' treatment experiences, they provided varied descriptions of children's behavior and expressions in art. For instance, sometimes the art product was the main focus during treatment, and other times the shaping process was central. Some children have the ability for symbolic expression and understanding; others express themselves through prerepresentative shaping and body language. This means that the bottom-up approach of this study has yielded more detailed information about the treatment provided by art therapists. At the same time, though, due to our method, individual differences of children with ASD to a certain level have disappeared.

A second limitation is the small sample size and that it was studied in only one country, which provides a poor level of external validity. As our first goal was to detect crucial art therapeutic elements and components, more than producing a picture of the way art therapists interact with ASD children in the Netherlands, concordant experiences from all participating art therapists were pivotal (Mason, 2010). A final limitation is that we lack data about unsuccessful treatments, as well as factors that contributed to unsuccessful treatments. An explicit dialogue on this topic with respondents could have deepened our insights.

Despite these limitations these expert practitioners contributed their rich experiences on promising components of art therapy treatment of children with ASD that we used to develop the COAT model. Each of the concepts in the model needs further elaboration. When building evidence about treatment, the concepts described in this article need to be further operationalized and standardized. One way to achieve this could be aimed at finding consensus on the most and least significant components or practice elements (Chorpita, Daleiden, & Weisz, 2005) with a Delphi procedure (e.g., Busschers, Boendermaker, & Dinkgreve, 2016). A second could be directed at observing and measuring art therapists' behavior during sessions. A methodology that maps behavior as assessed by self-reports or external observations, based on a fixed checklist of therapeutic activities, could be used (Tausendfreund et al., 2015). Third, children's, parents', and referrers' perspectives about COAT concepts can add useful information to compare to the therapists' responses from our study (Iachini, Hock, Thomas, & Clone, 2015); this would consider the multiple

perspectives on the quality of art therapy (Raban, Ure, & Waniganayake, 2003).

This study contributes to transparency, transferability, and professionalizing of art therapy with children with ASD. Exploration and explication of tacit knowledge of art therapists, organized in the COAT model, is a first step toward a practice-based theoretical description of art therapy with autistic children (Van Yperen & Veerman, 2008).

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