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Creative Arts-Based Parents Training Program for Parents of Children with Autism Spectrum Disorder

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Creative Arts-Based Parents Training Program for Parents of Children with Autism Spectrum Disorder

DISSERTATION

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ABSTRACT

This study evaluated the impact of the Creative Arts-based Parents' Training (CAPT) program. The 6-week long, creative arts therapy-based program and its impact on parental stress and sense of competence for parents of children with Autism Spectrum Disorder (ASD) was examined. Korean Parenting Stress Index Short-Form (K-PSI-SF) and Korean-Parenting Efficacy Test (K-PET) were used as quantitative measurements. Qualitative data were also collected for the experimental group (n = 17) using questionnaires, art journaling, and a 30 min focus group interview. The control group (n = 15) only participated in quantitative measurements. There was no difference in age between the experimental and control groups, $t(25)=1.38$, $p=.19$ and there was no difference in gender breakdown between groups, $p=.86$. There was a significant difference in the change in K-PSI-SF scores favoring the experimental group, and, $t(17)=-2.72$, $p=.014$ after controlling for inequality of variances; yet, there was no statistical significance found between groups $t(30)=.912$, $p=.369$ in K-PET scores. The experimental group reported positive experiences of both psychoeducational and creative arts-based parts of the program. Participants highlighted the CAPT program as helping them (1) improve social connection; (2) create new opportunities to be child-focused; (3) understand play for communication and connection; (4) understand the importance of emotion for child development; and (5) improve access to individualized information. The CAPT program seems a promising supplementary parent-training program.

CHAPTER 1

Introduction

Autism Spectrum Disorder (ASD) is a complex neurodevelopmental disorder studied across many disciplines. Research suggests that in order to solve ASD-related problems and develop treatments, scholars and professionals must be involved in consistent, ongoing conversations. Understanding ASD requires employing relational, developmental, and systematic approaches across multiple disciplines as well.

While scientists continue to explore causal genetic and immunological factors (Feng, 2006; Kim et al., 2017), recent research has focused on identifying psychological mechanisms for improving symptoms of ASD to better understand the nature of the disorder and design better treatments (Green & Garg, 2018). Researchers have found a promising link in the brain that could correlate to the unique social behaviors and communication problems associated with ASD (Feng, 2016). An epidemiological study of maternal gut bacteria in mice offspring has suggested an increased likelihood of developing ASD in humans when fetuses were exposed to maternal inflammation (Kim, et al., 2017).

The study found that maternal gut microbial communities promoting excessive T_H17 cell differentiation seemed to correlate with a higher likelihood of bearing children with ASD. This fetal exposure to maternal inflammation had associated behavioral abnormalities: (a) repetitive behaviors, (b) increased anxiety, and (c) social interaction deficits in primate and rodent offspring (Kim et al., 2017). While these are all notable findings in the pathology of ASD, no precise causal link has been found to explain the preponderance of the disorder, and these findings have not led to specific treatments (WHO, 2016).

Moreover, despite ongoing efforts, the nature of ASD makes interventions and treatments challenging for children with ASD and their families. The recent movement toward psychological treatments targeting child-environment social interaction, child behavior

development, and changing parent-child social communication have produced positive results. Yet, the focus on treatment relationships between therapist and client are limited in their generalizability outside of a specific and controlled treatment environment. As Green and Garg (2018) argue, the effects across the context and person must go beyond dyadic relationships. Approaches involving families, schools, and communities that go beyond dyadic, therapeutic interventions are worth examining because the greatest challenge facing individuals with ASD as well as their families involves the nature of the disorder itself (Green & Gard, 2018).

The fact that individuals diagnosed with ASD manifest different symptoms creates treatment and intervention challenges (Grandin, 1995; WHO, 2016). Thus, one of the greatest challenges associated with ASD involves identifying and adapting treatments to individuals with ASD and their families. Because no single treatment or intervention has been found to be effective in all cases, ASD requires treatments to be continuously adjusted to the circumstances of the individual patient (A. Shih, 2017). Moreover, given the various levels of treatment intensity required for children expressing ASD symptoms (Kasari, 2002), no individual method is predictably successful, and no specific standard of educational treatment for all children with ASD has been established. That said, early intervention and practices based in school settings had been proven to be efficacious (Stahmer & Aarons, 2009) Therefore, for those living with the disorder and their families, access to effective materials, information, and services is critical. In addition, it is imperative to build awareness of the disorder and concentrate efforts and resources on education and training about ASD, especially for parents and guardians.

Since 2000, the Korean ASD community has focused efforts on developing adequate services for early detection and early interventions for toddlers and children diagnosed with the disorder (Han & Kim, 2018). Early detection and early intervention have emphasized the importance (Diggle, McConachie, & Randle, 2005; M. Martin, 2014; Volkmar, Chawarska, & Klin, 2005) of possible developmental and brain chemistry differences in children (Lloyd-Fox,

Blasi, Elwell, Charman, Murphy, & Johnson, 2013). However, the delay in cultural acceptance of ASD and inadequate infrastructure to support families with children with ASD in Korea has resulted in inadequate resources and information or systematic social infrastructure (Han & Kim, 2018). According to research documenting the struggles of the Korean ASD community, parents with children with ASD struggle with (a) worries and anxieties; (b) lack of information; and (c) lack of professional personnel for information when they first learn of their child's diagnosis. Moreover, these Korean parents also reported issues around (a) acceptance; (b) lack of service and information; (c) and psychological distress from guilt as hardships when they accept their children's ASD. Once they started treatments and interventions for their children, these parents reported challenges associated with (a) finding services and information; (b) financial costs; (c) waiting periods for treatments (Han & Kim, 2018).

According to Han and Kim (2018), children with ASD in Korea received an average 3.57 (SD = 1.384, range = 1-7) different therapies per month, spending additional personal cost of 540,000 Korean Won (USD $540) to supplement governmental support. Children with ASD in Korea, like their counterparts in Western nations, commonly receive more than one treatment regime (Bowker, et al., 2011; Green, et al., 2006; Goin-Kochel, Myers, & Mackintosh, 2007). The high cost of treatments and intervention are widely known to be barriers for ASD treatment successes not only for the children in Korea but also for children with ASD in general. Given these practical concerns, recent studies have focused on alternative, lower cost parent-driven trainings, education, and practices (Bearss, et al., 2015b; Botteman-Beutel, Yoder, Hochman, & Watson, 2014; Diggle, et al., 2005; Green, et al., 2013; Kasari, Gulsrud, Wong, Kwon, & Locke, 2010; Matson, Mahan, & Matson, 2009; Rogers, et al., 2014; Steiner, Gengoux, Klin, & Chawarska, 2013).

Such alternatives approaches seek to meet the needs of families and children with ASD by providing a range of parent-mediated interventions and supports that are both clinically

effective and cost effective (Breibrorde, Woods, & Srihari, 2009). Parent-driven practices, such as skills-training programs (Matson, et al., 2009) can provide a relational approach to children with ASD that emphasize the role of "parents as mediators" (Diggle, et al., 2005; Matson, et al., 2009).

Matson, et al. (2009) reviewed studies on behaviorally oriented parental-training procedures highlighting the connection between dropout rates from parent training and those parents' perceptions of the effectiveness of such treatments. Their study suggested that focusing on *functional skills* could improve generalization and maintenance. They described various experimental studies of effective parenting training and suggested direct parental involvement in early intervention that focused on communicating with ASD-diagnosed children (Matson, et al., 2009). The review concluded that the idea of parents serving as therapists could be a promising treatment avenue by helping to create an environment for change for children with ASD and their parents.

In fact, efforts to develop caregiver/parent focused intervention (Green, & Garg, 2018) have been continuous. Research has found that such practices support parents by actively involving them and engaging them in learning and acquiring skills (Bearss, et al., 2015). These parents' efforts were found to have made a significant difference in (a) a treatment's effectiveness (Botteman-Beutel, et al., 2014; Diggle, et al., 2005; Green, et al., 2013; Kasari, et al., 2010; Matson, et al., 2009; Rogers, et al., 2014; Steiner, et al., 2013); (b) the organization of the emotions (Berkovits, Eisenhower, & Blacher, 2017; Kim, Wigram, & Gold, 2009); (c) the expression and recognition of those emotions (Grossman, et al., 2000; Lindner & Rosen, 2006; Richard, More, & Joy, 2015); and (d) changes in nonverbal communication skills through body awareness and motor coordination in children with ASD (Koch, et al., 2014; M. Martin, 2014).

There are various ways to consider the value of psychoeducation for parents as knowledge transfer, where parents or caregivers are the direct beneficiary. Here, most current

parent-mediated interventions for children with ASD focus on the core symptoms of ASD: socialization, communication, and imitation skills (Bearss, et al., 2015). Joint Attention Symbolic Play Engagement and Regulation (JASPER) is a well-known developmental and behavioral treatment approach that has been adapted as a primary parent-mediated intervention and Early Start Denver Model (ESDM) in home-based program for core areas (Bearss, et al., 2015). These approaches acknowledge the development of joint-attention, reciprocity, and mutuality were the key factors affecting social and communication skills in children (NICHD, 2000). Moreover, building sensitive parental response were the central effector on children's development (Kasari, Gulsred, Wong, Kwon & Locke, 2010; Murray, 1996; Tamis-LeMonda, Bornstein, & Baumwell, 2001).

Improving joint-attention skills is critical not only because it is a core deficit area in ASD that tends to be impaired among children with ASD, but also because it is a part of early social cognitive skills related to improving communication skills including social communication (Kasari, 2002; Kasari lab, 2016a, 2016b; Kasari, et al., 2010; Goods, et al., 2013) and social-cognitive and language development (Carpenter, Pennington, & Rogers, 2002), especially expressive language (Autism Speaks, 2017). In addition, early motor imitation predicts development in intentional communication in preverbal preschoolers with ASD (Sandbank, Woynaroski, Watspn, Gardner, Kaysili, & Yoder, 2017).

Creative arts therapy approaches to children with ASD can supplement such interventions, helping parents to capitalize on both nonverbal and verbal communication skills in children with ASD. Creative arts therapy experiences that include imitating, pointing, mirroring, touching and sensing, can directly relate to the core areas of nonverbal communication, joint attention, social communication, and interaction in treating children with ASD (Hildebrandt, Koch, Fuchs, 2016; Schweizer et al., 2014; M, Martin, 2014; N, Martin, 2008). Dance-movement therapy, in particular, has been shown to reinforce nonverbal communication skills by enhancing

empathy and embodiment through mirroring movements (Hildebrandt, Koch, & Fuchs, 2016; McGarry, & Russo, 2011). Moreover, art therapy offers opportunities for empathic relations, while hand-made and material-oriented art-making provide other important sensory experiences (Schweizer, et al., 2014).

However, the efficacy of using creative arts therapies in treatments and intervention with children with ASD is neither well studied nor recognized outside of the creative arts therapy field. Moreover, few evidence-based studies examine whether creative arts approaches combined with parental involvement provide effective treatments (Randall & Parker, 1999). There are, however, some family-based studies on the possibility of using parents and families in creative arts therapy-driven parent training practices (Allwood, 2005).

Allwood (2005) studied the impact of music therapy interventions on parents' perceptions of their children with ASD. Parents positively experienced music-making with their children and they described the ways in which they gained new insights about themselves and their children. These new insights were connected to changes in the parents in the following ways: (a) understanding the importance of their relationship with their child; (b) identifying their child's strength; and (c) understanding their changing role with their children (Allwood, 2005). Although Allwood's study was limited in terms of time, opportunities, and group format, it provided evidence supporting the efficacy of ongoing family-based interventions that promote indirect parental training and the therapeutic effects of music therapy sessions. This study creates an opening to develop parent-driven creative arts therapy programs to help parents understand their children through creative play techniques that fully reflect a child's innate abilities and talents.

Parenting affects the way children experience, perceive, and interpret the world, as parents provide everyday social learning and opportunities for interaction (Tortora, 2006). Parents jointly construct their child's world; therefore, it is important for children to build

sources of communication with their parents both through parent-child interactions as well as nonverbal messages (Tortora, 2006). Combined, such parent-child interaction, direct parent involvement in education focused on *parental responsiveness and sensitivity*, and professional, clinical interventions for children with ASD, can form a vital treatment regime (Kasari, et al., 2010; Schertz, Horn, Lee, & Mitchell, 2017; Zaghlawan & Ostrosky, 2016).

Such a regime can be especially helpful for a child's early development as they learn to communicate and acquire language in relation to maternal responsiveness (Tamis-LeMonda, Bornstein, & Baumwell, 2001). Thus, training parents in creative arts therapies approaches can build a meaningful connection between parents and children with ASD in early childhood, and it may supplement other foundational ASD treatments. Meanwhile, training through arts therapies can also help parents understand their children through creative play that fully reflects the child's innate abilities and talents, allowing the parent to change their role and become "mediators" (Diggle, et al., 2005; Matson, et al., 2009).

Cultural Sensitivity

Often, socially isolated inferior groups form unintentionally because majority and minority, superior and inferior, dominant and marginalized groups arise naturally. It is inevitable that minority, inferior, or marginalized groups will deal with their secondary social status as the devalued *other*. Hadley (2013) pointed out that in ableist societies the "dominant attitudes in society devalue and limit the potential of people with disabilities" (p. 378). Korea's treatment of the ASD population comports with this view of ableist societies. Minority populations are rarely seen in public. Recently, parents of children with ASD protested for their children's rights to attend local schools because the majority of the citizens rejected the construction of special schools in provincial areas. However, there are ongoing efforts to address such issues related to ASD and disabilities in Korea. There are a number of approaches involved: education and knowledge, along with availability of information are often considered the major autism

treatments. Yet, resources and treatment options are always limited. For example, creative arts therapies are not fully supported by government funds for treating children with ASD in Korea. Due to the cost of treatment, not all children receive creative arts therapies.

Costs associated with professional care and art therapy services (art, music and dance-movement) can burden parents seeking to support their ASD-diagnosed children. Often, access to these services is limited according to the location and financial states of families (Ganz, 2007; Young et al., 2009) and the availability of public supports and systems under the specific political system of a country are different for each country. Thus, training parents of children with ASD is a promising alternative offering feasibility, acceptability, and cost-effectiveness (Brian, et al., 2017). Especially in Korea, resources for therapies and quality care are limited due to infrastructure. It often takes years to receive access to quality treatments and services from qualified institution or service providers (Han & Kim, 2018). Thus, the hybrid parent-support program of psychoeducation and parent-training with creative arts therapies-based approaches can optimize natural resources that children already have. Parental coaching can address parent isolation, acceptance, competence, and confidence with their children with ASD in Korea (Tonge, et al., 2006). Provisions like parent mediation can empower parents and children at the same time (Ingersoll, et al., 2016).

Moreover, providing services to parents to reduce a parent's emotional burdens and stress (Keenan et al., 2016; Krakovich, McGrew, Yu, & Roble, 2016) can help Korean parents accept their child's disability, allowing them to overcome feelings of guilt and responsibility that often accompany diagnosis (Han & Kim. 2018). Moreover, research demonstrates that caregivers for children with ASD report significantly higher psychological distress and attachment-related anxiety than parents of typically developing children (Keenan, Newman, Gray, & Rinehart, 2016; Hoffman, Sweeney, Hodge, Lopez-Wagner, & Looney, 2009; Montes, & Halterman,

2007). This makes sense given that attachment quality between children and parents seems to be related to parental stress and caregiver well-being (Keenan, Newman, Gray, & Rinehart, 2016).

Thus, it is necessary to examine stress in parents of children with ASD as they tend to be at higher risk of having psychological problems (Murphy et al., 2000) such as depression (Hodge, et al., 2011; Lee, 2009; Yirmiya & Shaked, 2005), and to provide parent-supportive interventions to reduce parents' emotional burdens (Keenan, et al., 2016; Krakovich, McGrew, Yu, & Roble, 2016). In addition, cultural awareness and acceptance of the ASD diagnosis in Korean culture needs to be further developed. At the moment, Korean society is less tolerant of neurodiversity than Western culture, which affects both parents and families of children with ASD. Providing services and information directly to parents can be an important step for parents in building their efficacy and competence as caregivers of children with ASD.

Purpose and Question

This study expands on a pilot study to investigate the Creative Arts-Based Parents Training (CAPT) program to discover if there is any impact in a larger sample. In addition, in the current study, a parent-facilitator assisted delivery of the program. The proposed research question is: Does the CAPT program have an impact on parent competence and stress with their children with ASD?

Summary

The study examines the efficacy of creative arts therapies approaches combined with parent psychoeducational training. Parent training is crucial to building awareness about ASD and can be a means of improving the relationship between parents and their children with ASD. Parents may learn about additional resources to better understand their children and have the opportunity to become more competent caregivers through parent training.

In the pilot study (Park, 2018) the Creative Arts-based Parent Training (CAPT) program was proposed as a unique way to offer an environment for parents to learn and share their

emotions, experiences, and knowledge about ASD and their children. CAPT was intended to bring psychoeducational materials and creative arts-based functional skills to help and empower highly stressed parents of children with ASD in Korea.

The program was proposed to help parents capitalize on a secure, attachment-based parent and child relationship. CAPT showed promise, as participants reported positive changes in parenting, the understanding of play, communication, and connection with their children. Parents reported that they felt more empowered and effective. They also reported that they were more socially connected and experienced improved well-being, a noteworthy gain for a group of parents who often feel isolated. The potential of using creative arts therapies interventions in parent training for children with ASD was apparent in these experiences. The current study further examined the CAPT program with a larger sample and the help of a parent assistant.

A Statement of the Anticipated Contributions of the Research

Including creative arts approach in parents' educational training program in early intervention for children with ASD can help build a fundamental base for parent-child relationships between parents and their children with ASD. These approaches can help them to prepare to work with their children and understand their non-verbal communications and expressions. Using a parent of a child with ASD to gain access to parents and to co-facilitate was intended to help delivery of the program for other parents of children with ASD and address some of the social stigma the parents might experience.

CHAPTER 2

Literature Review

ASD & Core symptoms

The diagnostic criteria for ASD in the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; American Psychiatric Association, 2013) includes (a) deficits in the areas of social communication and interaction; (b) restrictive repetitive patterns of behavior, such as repetitive movement and echolalia; (c) abnormal sensitivity to sensory input; and (d) limitations in language development. Researchers expect these core symptoms to manifest in the early developmental period, as described in Category C of the American Psychiatric Association (2013) criteria. As the condition's noticeable early onset is part of the diagnostic challenge, various longitudinal studies have supported the importance of detecting ASD in early infancy and implementing corresponding early intervention (Diggle et al., 2005; M. Martin, 2014; Volkmar et al., 2005).

Researchers have thoroughly studied the early markers of ASD (Lloyd-Fox et al., 2013; Sandbank, Woynaroski, Watson, Gardner, Kaysili, & Yoder, 2017; Woynaroski et al., 2016; Yoder, Watson, & Lambert, 2015). Yet, there are no strong affirmative predictors in early infancy; instead reliable diagnosis usually occurs most readily around 3 years of age (Lloyd-Fox et al., 2013; Ozonoff, Losif, et al., 2010; Ozonoff, Young, et al., 2014). Significant predictors of development in areas of language and social cognitive skills among young children with ASD were found to be related to: (1) the developmental trajectory of joint attention (Carpenter, Pennington, & Roger, 2002; Tomasello , & Farrar, 1986; Yoder et al., 2015); (2) use of intentional communication (Carpenter, Mastergeorge, & Coggins, 1983; Carpenter, Pennington, & Roger, 2002; Sandbank et al., 2017; Woynaroski et al., 2016; Yoder et al., 2015); and (3) parents' linguistic responses to children (Woynaroski et al., 2016; Yoder et al., 2015). These predictors apply to typically developing children as well (Carpenter, Mastergeorge, & Coggins,

1983; Carpenter, Pennington, & Roger, 2002; Sandbank et al., 2017; Tomasello & Farrar, 1986; Woynaroski et al., 2016; Yoder et al., 2015); however, typical development of neurotypical children and children with ASD are differentiated. For example, in typically developing children, joint attention skills develop before other social-cognitive skills, while joint attention skills emerge after other social-cognitive skills in children with ASD (Carpenter, Pennington, & Roger, 2002).

Moreover, compared to typically developing children, those with ASD have fewer joint engagements and sharing gestures such as gazing and pointing (Carpenter, Pennington, & Roger, 2002). Thus, the areas of (a) joint attention (Autism Speaks, 2017; Goods et al., 2013; Kasari, 2016a, 2016b); (b) communitive gestures, pointing, and following (Smith & Bryson, 1998); (c) imitations (commenting and motor imitation, McDuffie, Yoder, & Stone, 2005; gesture imitation, Smith & Bryson, 1998; and motor imitation, McDuffie et al., 2007); and (d) referential languages (Yoder et al., 2015) have often been studied for their intercorrelations with language development, social cognitive ability, and social communication in children with ASD (Berkovits et al., 2017; Carpenter et al., 2002; Ingersoll, 2008).

ASD treatments: Focus on Emotion & Relationship

Across many disciplines, ongoing efforts have been made to develop effective interventions to address the variety of ways in which ASD can manifest and cause challenges for children (Berrol, 2006; Feng, 2016; Green & Garg, 2018; Kasari Lab, 2016a, 2016b). Researchers have assessed many interventions empirically (Thayer, 2016), especially, adult-led behavioral approaches that use applied behavior analysis (ABA) such as discrete trial teaching, verbal behavior analysis, pivotal response training (Steiner et al., 2013), picture-exchange communication systems (Bowker, Angelo, Hicks, & Wells, 2011). These pragmatic intervention approaches help building and promoting the necessary skills for everyday functioning among children with ASD within specific structured settings. Indeed, the popular behavioral

interventions were known as educational (Reynolds, 2011) and effective (Leaf et al., 2011); nevertheless, it has been criticized for limits: (a) going beyond the setting and be generalized and applied in everyday situations (Matson, Benvidez, Compton, Paclawskyj, & Baglio, 1996; Mudford, Martin, Eikeseth, & Bibby, 2001; Solomon, Nechels, Ferch, & Breckman, 2007); (b) creating dependency on prompts thus lacking spontaneity. (Schreibman, Dawson, Stahmer, Landa, Rogers, McGee, Kasari, Ingersoll, Kaiser, Bruinsma, McNerney, Wetherby & Halladay, 2015, p. 241)

Facing these criticisms about ABA, Kasari developed JASPER (JASPER; Autism Speaks, 2017; Kasari, 2016a, 2016b), an approach that is less adult-prompted and more child-focused than other types of applied behavior analysis in more naturalistic setting. JASPER is focused on improving joint attention and symbolic play—two areas that tend to be impaired among children with ASD—which affect cognitive and language ability, especially expressive language (Autism Speaks, 2017). JASPER has successfully improved social communication (Autism Speaks, 2017), and has been studied in broader applications at home-based and community-based settings partnering with parents and families (Goods et al., 2013, Shire, Chang, Shih, Bracaglia, Kodjoe, & Kasari, 2017).

In a pilot study testing the effect of JASPER in preschool-aged children with ASD, researchers focused on the use of developmentally appropriate play with a range of toys and joint attention skills meant to create better spoken-language development, rather than the use of defined play scripts or instructions on how to play (Goods et al., 2013). The participants were 15 three- to five-year-old children with ASD (gender not specified) with minimal verbal skills at the baseline assessments. Pre- and post-intervention assessments were completed using three standardized instruments: the Structured Play Assessment, Early Social Communication Scales, and the Classroom Observation Measure. The control (n = 8) and the treatment (JASPER; n = 7) groups were randomized for 12 weeks (Goods et al., 2013).

Goods et al. (2013) found that, compared to those in the control condition, participants in the treatment group showed more gestures following intervention, and spent less time without engagement while also demonstrating greater play diversity and scoring better on all three assessment measures. These findings provided valuable insights that might help teach young, minimally verbal children with ASD. The researchers suggested that using and targeting "engagement" through functional activities in a naturalistic developmental/behavioral environment would benefit these children to learn naturally. Though the study was limited because of its small sample size (n = 15), short duration (12 weeks), and pseudoscientific observation (done in the children's classroom), its play-based approach to improving engagement among nonverbal children with ASD showed promise.

Likewise, researchers have also found that the ability to regulate and control emotions and behaviors is key to learning or improving communication skills (Autism Speaks, 2017), social skills, and behavioral functioning (Berkovits et al., 2017; Daou & Hady, 2016) in children with ASD. Berkovits et al. (2017) studied the relationships between emotion regulation and both social and behavioral functioning in 108 children with ASD (ages 4-7 years), using parents' reports from the Emotion Regulation Checklist (ERC), Child Behavior Checklist (CBCL), Social Skills Improvement System (SSIS), Wechsler Preschool and Primary Scale of Intelligence (WPPSI-III), Comprehensive Assessment of Spoken Language (CASL-2), Social Responsiveness Scale (SRS), and Autism Diagnostic Observation Schedule (ADOS-2; Lord et al., 2012). The results showed a moderate relationship between children's emotion regulation and their ratings on overall social skills [SSIS; $r(108)=.67$, $p < .001$] and behavioral functioning [CBCL; $r(108)=.67=.74$, $p <.001$] from year 1 to year 2 (Berkovits et al., 2017).

The study suggested that emotion dysregulation was related to core behavioral problems in children in the early years of having ASD. Thus, children with ASD can benefit from recognizing their own emotional states and having strategies for managing lability and negativity

of emotions, since building on these skills supplements social and behavioral skills with their neurotypical peers. The researchers also found that differences in the development of emotion regulation were unrelated to cognitive abilities. In these cases, relationship-based approaches and interventions were found to be effective (Mahoney & Perales, 2003; Wieder & Greenspan, 2003, Thayer, 2016).

Parents as mediators

Parent training

In addition to professional help, parents' involvement in intervention can be vital for the treatment of children with ASD (Bottema-Beutel et al., 2014; Kallal, 2014; Kasari et al., 2010; Schertz, Horn, Lee, & Mitchell, 2017; Wallace & Rogers, 2010; Zaghlawan & Ostrosky, 2016), especially when parent mediation is focused on responsiveness (Green & Garg, 2018; Tamis-LeMonda, Bornstein, & Baumwell, 2001), communicative synchrony (Green & Garg, 2018).

Parent-focused interventions & imitation skills. Zaghlawan and Ostrosky's (2016) pilot study was a parent-implemented intervention focused on training imitation skills in children with ASD. Neurotypical children develop imitation skills as part of their developmental milestones. A lack of such skills indicates a delay in communication and social responsiveness (Vanvuchelen, Roeyers, & De Weerdt, 2011). Zaghlawan and Ostrosky (2016) coached two families (one with a 37-month-old child and one with a 60-month-old child) on modified in-home reciprocal imitation training strategies to determine the effectiveness of a parent-driven implementation in terms of improving children's imitation skills (Zaghlawan & Ostrosky, 2016).

Zaghlawan and Ostrosky used sets of stacking toys, blocks, balls, musical toys, dolls, stuffed animals, and fake food as interaction materials for children. In addition to manuals and handouts, they used modeling, prompting, and reinforcing to increase appropriate behavioral responses (spontaneous imitative behaviors). Both sets of parents read manuals and then learned to implement the strategies in their homes to support their children. Zaghlawan and Ostrosky

used a multiple-baseline design with four parts (baseline, contingent imitation and descriptive language, object imitation, and gestural imitation) and gathered data from 10-min sessions with various experimental conditions. Then, Zaghlawan and Ostrosky defined and used partial coding and a procedural checklist for data collection and analysis.

They found that parents could learn strategies and that these children showed moderate improvements in their contingent imitation, descriptive language, and gestural imitation when both parents used and implemented the modified reciprocal imitation training in their homes (Zaghlawan & Ostrosky, 2016). This study showed that parent coaching might build the imitation skills for children with ASD. Because only two cases were illustrated, further research with a larger sample is necessary.

Parent-focused interventions & social communication skills. A study by Schertz et al. (2017) also focused on the ability of the parent–child relationship to mediate a toddler's learning of social communication in a family's natural environment. Their intervention emphasized building joint attention as preverbal communication to improve the child's fundamental competency in typical social communication and behavior; this acted as part of the developmental milestone that comes before the promotion of verbal communication. Because a socially oriented preverbal foundation is fundamental to interacting with others, recognizing others' viewpoints, sharing experiences, and being motivated to learn verbal language skills, Schertz et al.'s intervention emphasized building the child's joint attention. Language develops through interaction with others (Barna & Androne, 2012), and Schertz et al.'s (2017) strategy was not to teach the prescribed ways of speaking, but instead to help children individually develop their own flexibility in language through social interaction, so they could take an active role rather than being passive respondents who only follow commands or comply with requests while learning.

Starting from the stage of ‘attending to others’ faces’ and moving to ‘reciprocal interaction’ and ‘joint attention,’ parents in the Schertz et al. (2017) study incorporated games to initiate social learning in their children and provided a solid foundation for future social tasks. As a result, parents learned to interact with their children at home and acquired the conceptual base to create their own activities and tailor them to their children’s current social communicative competencies (Schertz et al., 2017). This was a quasi-experimental case study with a 24-month-old boy; thus, its needs a more systematic approach with a larger sample.

Parent-focused interventions & joint attention and play to social communication skills. Kasari et al. (2010) conducted a randomized controlled caregiver-mediated intervention study with toddlers with ASD, which measured caregivers’ responsiveness to joint attention and play to improve their toddlers’ social communication skills. Among 42 children whom Kasari et al. screened for eligibility, they chose 38 toddlers (age range: 21–36 months) and their parents, then randomized 19 caregiver–child dyads to form the immediate treatment group (n = 19; 15 males, 4 females), with the rest of the 19 caregiver–child dyads placed in the waitlist control group (n = 19; 14 males, 5 females) (Kasari et al., 2010). The researchers then provided an 8-week parent-mediated intervention to the immediate treatment group and performed a 1-year follow-up assessment for both groups.

Kasari et al. (2010) employed videotaping and coding as a primary outcome measure four times: prior to beginning the study, at the start of the study, at the end of the study, and at the 1-year follow-up visit. The Caregiver Quality Involvement, the Parent Adherence to Treatment and Competence, and the Service Utilization Measure were the secondary measures (Kasari et al., 2010). Kasari et al. tried to teach the parents to follow their toddlers’ interests and to group these interests together using an increased level of joint engagement between people and objects through both functional and symbolic play. The results suggest that, although learning to initiate joint-attention skills remains particularly difficult for children with ASD, parents’ responsiveness

to joint attention and the diversity of functional play they used with their children both impacted their toddlers' social communication skills. Thus, short-term parent-mediated interventions can achieve positive changes in the core impairments of children with ASD (engagement, joint attention, and play skills), and multiple caregiver factors such as competence and fidelity can also affect treatment outcomes (Kasari et al., 2010).

Many of these studies focused on p–c engagement (Bottema-Beutel, et al., 2014) and examined p–c engagement in association with the development of core deficit areas such as joint attention, social communication, and expressive and receptive language in children with ASD. This is no surprise given that joint attention and imitation skills are preverbal skills that are directly related to language development in early childhood (Bottema-Beutel et al., 2014; Carpenter et al., 2002; Goods et al., 2013; Kasari et al., 2010; Sandbank et al., 2017; Yoder et al., 2015).

Parents' mediated early interventions

Researchers have tried to identify early predictive markers of ASD (Landa et al., 2013; Ozonoff et al., 2008; Ozonoff et al., 2014; Sacrey et al., 2013; Want et al., 2013; Zwaigenbaum et al., 2005). The following have been found to be detectable symptoms in infants younger than 12 months of age: (1) unusual visual examination and fixations; (2) unusual repetitive patterns of object exploration; (3) lack of intentional communication acts; (4) lack of age-appropriate phonemic development; (5) lack of coordinated gaze, affect, and voice in reciprocal social-communicative interactions; and (6) decreased eye contact, social interest, and engagement (Rogers et al, 2014).

Rogers et al.'s (2014) study of parent-implemented intervention tested the effects of early intervention and early identification of ASD. This study involved a 12-week, low-intensity parent-implemented treatment for 7- to 15-month-old symptomatic infants (Rogers et al., 2014). In the pilot study, Rogers et al. showed the feasibility of identifying early symptoms in infants

younger than 12 months and proved the efficacy of parent-driven early interventions. Rogers et al. used: (1) the Infant Start Parent Fidelity Measure, the Parent Satisfaction Rating, and Working Alliance Scale for Interventions with Children for changes in parent measures; (2) the Infant Toddler Checklist, the Autism Observation Scale for Infants for changes in infant enrollment measures; (3) the Carolina Curriculum for Infants and Toddlers with Special Needs, the Early Start Denver Model(ESDM) Curriculum checklist for changes in the infant treatment curriculum, lastly, (4) the Autism Diagnostic Observation Schedule (ADOS), the Mullen Scales of Early Learning (MSEL), the Clinical Best Estimate (CBE) Outcome Classification based on DSM criteria, and the Infant Start Therapist Fidelity for changes in infant outcome measures.

Rogers et al. (2012) found that infants changed more quickly than preschoolers. The researchers assumed that this was due to infants' brain plasticity and rapid learning ability. Per Rogers et al. (2012), infants normally develop skills for language, joint attention, imitation, and reciprocal communication in the 12- to 24-month period. The study showed the importance of the appropriate chronological acquisition of such skills according to the age for neural readiness of typical development. These findings suggest that some of the problems associated with ASD may not be caused by causal biological differences, but instead may represent secondary effects of the disorder. These secondary effects are likely associated with adjustments in the social-communicative environment, where infants showed poor social-communication in reflecting poor typical responses and initiations from their parents and other family members (Rogers et al., 2012). In other words, brain functioning and behavioral differences in children with ASD may be amplified by the early social-communicative environment, in which children constantly learn, interact, and develop atypical developmental trajectories (Dawson 2008; Elsabbagh, 2002, 2002; Green et al., 2013)

Green et al. (2013) applied an interaction-focused, parent-mediated intervention for infants at risk of developing ASD as well. They believed that a supportive, contingent, sensitive

parent–child relationship would be central to the development of identifiable, atypical behavioral features related to ASD in the 8 to 14 months after birth. In other words, Green et al. thought that the optimal dyadic interaction was amenable to change because the vital effect of parental synchrony during infancy was related to later language and social development. A change in the parent–child relationship was a change in environment for the infants; such a change provides a new social learning environment, impacting multiple levels of functioning in the brain (Green et al., 2013). Moreover, this new early social interactive environment affects the general development of joint attention, reciprocity, and mutuality, all of which are closely related to both socialization and communication as the child grows (Green et al., 2013). After the initial screening, seven participants comprised the high-risk intervention study group, 37 comprised the high-risk nonintervention comparison group, and 33 comprised the low-risk nonintervention group.

Therapists provided 12 home-based sessions to all three groups using the manual over the course of 5 months and encouraged the parents to adapt and practice the structured learning with their children every day (Green et al., 2013). The intervention was parent-mediated and video aided; however, children had no direct contact with therapists. Green et al. used the following measures: intervention acceptability, caregiver–infant interaction, infant developmental and adaptive level (using the Mullen Scales of Early Learning, Mullen, 1995), infant behavior (using the Autism Observation Sale for Infants, Bryson et al., 2008), and infant visual attention (using the Gap-Overlap Task). The results confirm the importance and feasibility of delivering home-based, parent-mediated interventions to high-risk groups. The Green et al. intervention was also well-received by the families, all of whom said that the intervention was enjoyable and brought them greater understanding.

The framework for these studies shows that parents can be the best agents of change, as they can design and enforce flexible interactive exchanges with their children, thus supporting

the children's current needs and interests; parents can also maintain their family priorities and cultural values by providing a consistent environment (Schertz et al., 2017). The findings from these studies provide evidence of the efficacy of early intervention, parent-driven intervention, and the social reward theory of autism. However, these conclusions need further testing to prove the efficacy of the treatments, including randomized trials, as the nature of autism studies is sometimes controversial due to the difficulty of replication, even when therapies are shown to be effective (Diggle et al., 2005). Moreover, more research is needed on "naturalistic teaching strategies for parents" (Charlop-Christy & Carpenter, 2000, p. 98) to ensure that they can maximize their ability to bring changes to children with ASD.

The Efficacy of Training Parents for Early Intervention

A recent movement in early-intervention programs has moved toward direct parental involvement (Matson et al., 2009). This movement, called Parent Skills Training (Autism Speaks, 2017; Matson et al., 2009), it is supported by Autism Speaks and WHO, and exemplifies the recent movement toward a parent-mediated behavioral approach involving floor time and play therapy. However, such parent-driven programs do not include creative arts approaches to helping children with ASD, nor do they provide any creativity-influenced training that reflect children's innate ability in arts and play. In fact, there is no well-known evidence about whether creative approaches combined with parental involvement provide effective treatment (Randall & Parker, 1999) for the emotions, expressions, and communications of children with ASD.

Matson et al. (2009) reviewed studies on training for parents of children with ASD. Matson et al. mentioned behaviorally oriented parental-training procedures and stressed the connection between dropout rates from parent training and those parents' perceptions of the ineffectiveness of such treatments. Thus, the researchers suggested the importance of focusing on functional skills to improve generalization and maintenance. In addition, Matson et al. (2009) described various experimental studies of effective parenting training, such as Lafasakis and

Sturmey's (2007) study on parent training in discrete trial training (DTT), a commonly used training procedure. DTT could be adapted in parent training, particularly for young children with ASD. Furthermore, Matson et al. reviewed the number of studies focused on parent training related to communication in children with ASD, early intervention, and stress and anxiety. Their review of parent training studies concluded that the notion of parents serving as therapists holds promise in the field of ASD study and warrants further attention.

A Rationale for using Creative Arts approach for children with ASD

Importance of Understanding and Recognizing Emotions and Expressions.

Researchers have long focused on the importance of understanding and recognizing emotions and their expressions, including facial expressions (Argott et al., 2017; Daou, 2014; Daou & Hady, 2016; Daou, Vener, & Poulson, 2014; DeQuinzio, Townsend, Sturmey, & Poulson, 2007; Gena, Krantz, McClannahan, & Poulson, 1996; Grossman, Klin, Carter, & Volkmar, 2000; Hobson, Ouston, & Lee, 1988; Klin, Jones, Schultz, Volkmar, & Cohen, 2002; Lindner & Rosen, 2006; Richard et al., 2015; Scambler, Hepburn, Rutherford, Wehner, & Roger, 2007; Sturmey & Poulson, 2008).

One of the core symptoms of the original formulation of ASD involved conflicts in affect in contact with others (Kanner, 1942), including deficits in facial expressions and the inability to form affective connections with people. Kanner (1942) also remarked that, unlike typical developing children, children with ASD experienced difficulty using communicative gestures. Delays in pointing have been identified as among the earliest signs of emerging ASD (Wetherby et al., 2004); gesture development is related to language ability, as it links nonverbal and verbal communication (LeBarton, & Iverson, 2016). LeBarton and Iverson (2016) observed reduced pointing in toddlers with ASD, indicating the potential for targeting nonverbal communication (e.g., gestures) in early interventions to reduce the risk of language delay and to target early

language development. Furthermore, LeBarton and Iverson argued that the development of gestures such as pointing was related to cognitive and social development.

Moreover, it is generally known that children on the autism spectrum have limited emotional responsivity connected to social relatedness and communication (Scambler et al., 2007), and that they struggle to comprehend emotions using nonverbal indicators such as facial expressions (Grossman et al., 2000; Lindner & Rosen, 2006). Therefore, recognizing emotions could be one of the most critical issues for these children, as it helps them make inferences about others' nonverbal affective displays (i.e., emotional states such as facial expressions). These emotions and expressions are related to theory of mind (ToM; Baron-Cohen, 1997), a critical concept that plays a key role in understanding children with ASD, especially their challenges in areas of social skills and behavior.

ToM is theorized to have two components: cognitive and affective. Understanding others' intentions, beliefs, and emotions is important to social information processing; thus, the development of healthy ToM is critical because it is directly related to the ability to understand complex social situations, interpret social behaviors, and process social cues. In other words, ToM is a prerequisite for the social information process and for the social communication skills that children with ASD find difficult (Mazza et al., 2017). Therefore, the ability to recognize emotions is important and plays a significant role in the development of social interactions (Daou et al., 2014; Gena et al., 1996). Furthermore, facial expressions are related to the development of facial processing and the ability to access and retain memories (Richard et al., 2015).

Creative Arts Therapies, Emotions, and Expression

Creative arts therapies such as art and dance movement therapy have been developed to overcome the challenges children with ASD face in understanding emotions and facial expressions. In art therapy, the Face Stimulus Assessment (Betts, 2003) and Portrait Drawing

Assessment (N. Martin, 2008) have been developed to help understand the facial-expression recognition of children with ASD (Richard et al., 2015).

Adapting this idea of exploring facial features, Richard et al. (2015) originally recruited 25 children with ASD (ages 8-14 years) from a private elementary school; however, six participants were removed. There were 10 boys in the treatment group and six boys and three girls for control group. Richard et al. (2015) created three-dimensional clay structures for implementation of "build-a-face" (p. 15) task to assist in the process of facial expression and emotional recognition in children at the elementary school level. Richard et al. (2015) used a non-natural clay material called "Super Sculpey," guiding participants to make four sets of facial features (eyes, noses, mouths, and brows) to represent four emotions (sadness, happiness, anger, and fear). The researchers then asked the children to put the facial features together on a mannequin head to represent certain emotions, with the goal of assessing the children's ability to recognize emotions in facial expressions.

Richard et al. (2015) used the Diagnostic Analysis of Nonverbal Accuracy 2-Child Facial Expressions (DANVA 2-CF) to measure this ability pre- and post-intervention. The results of the intervention seemed beneficial: seven participants from the treatment group and four participants from the control group showed improvement. While there were some trending improvements, no statistically significant differences between the treatment and control groups were found (Richard, et al., 2015) to validate an improved recognition of emotions as the result of the intervention. Moreover, the study was limited by its small sample size (n = 19) and problems associated with administrating the test (Richard et al., 2015, p. 17).

The tactile experience of touching and creating with hands-on art-making could potentially help children to be more connected in the present moment because tactile and kinesthetic experiences could induce sensory awareness and expression (Lu, Pertersen, Lacroix, & Rousseau, 2010; N. Martin, 2009a, 2009b; Schweizer et al., 2014). Recently, Kuo and

Plavnick (2015) studied the effectiveness of art as a form of school-based behavioral intervention in reducing off-task classroom behaviors (such as getting up out of one's chair, calling out, and looking around the room for a 3-year-old boy with speech and language impairment and ASD). Their research design used art materials, including "small lacing beads of various colors, pictures outlining animal shapes on standard printer paper, and small pieces of tape along the outer lines of the animal pictures" (p. 55) as the intervention tools, with the hope that art could lead to greater focus, sensory stimulation, and attention.

Kuo and Playnick (2015) established a baseline by observing the participant with other students in a large whole-class instructional session for 15 min per day. The usual types of the large-group instructional session included "direction-following games, storytelling, and watching movies" (Kuo & Plavnick, 2015, p. 56). The intervention condition included the art intervention, which was provided for approximately 10 min prior to the large-group instructional session. The experimenters administered the art intervention at the corner of the classroom, then the boy returned to join and participate in a large-group instructional session as described under baseline condition.

The frequency of off-task behavior during large-group instructional sessions was counted with Shapiro's (2010) definition, off-task motor (OFT-M) for exhibition motor task that is unrelated to assigned academic task such as getting out of seat. The study used a single-case reversal (A-B-A-B) design with three experimental conditions: observation under typical classroom session with no intervention prior to, during, or following.

The boy showed improvements in terms of off-task behaviors, with fewer disruptive motor and verbal behaviors (Kuo & Plavnick, 2015). The change in instances of off-task behaviors was observed: he produced 10.5 for initial baseline phase; 1.8 for the first intervention phase, 5 for second baseline phase; then 2 for second intervention phase. There were noticeable differences in types of off-task behaviors during the baseline and intervention phase: off-task

behaviors “looking around,” “calling out,” appeared less frequently during the intervention and “playing with his shoes,” and “playing with his neighbor’s hair” did not appear in the intervention phases (Kuo & Plavnick, 2015, p. 57). The experimental design using art as a behavioral-antecedent-based intervention showed that using art interventions can support learning in a special-education class setting, since art activities can help establish routines and increase predictability among children with ASD. However, this single-subject study in a quasi-experimental design had many uncontrolled elements, raising some questions about its limitations that shape the study’s external validity. Moreover, the length of observation was varied for sessions as the experimenters granted extra time for the participant complete the activities during the intervention.

Durrani’s (2014) case study with a 12-year-old boy provided a clinical account of this dynamic. Originally, the boy used movements such as jumping and flapping his hands to self-soothe, his sensory dysfunctions and difficulties in self-regulation. The boy was referred for art therapy due to his anxiety, and Durrani provided weekly art therapy for 1 year, to nurture safety and secure attachment. The boy had an increase in engagement time from 30 to 60 min for the weekly session, plus drastic changes in the communicative abilities: he began making longer and meaningful eye contact with the therapist during the sessions indicating his “wants” and “saying no” (Durrani, 2014). In addition, the boy’s anxiety levels decreased as the predictability of his activities increased through art (Durrani, 2014). Although this was neither an evidence-based practice nor a systematic investigation, it showed that art could anchor some changes in expressing body language and emotions (Durrani, 2014) as art materials created a channel for a child with ASD to express emotions, as well as with a positive experience of being present in the environment as they interacted and self-regulated with art.

The Creative Arts as Early Intervention Tools

Many researchers have emphasized the importance of early intervention for children with ASD during the first 5 years (see, for example, Autism Speaks, 2017; Krantz, 2000; N. Martin, 2008; N. Martin, 2009a, 2009b). Several scholars have examined ASD and the use of the creative arts (e.g., art, music, and dance or movement) as approaches to early intervention (Koch, Mehl, Sobanski, Sieber, & Fuchs, 2014; Kuo & Plavnick, 2015; M. Martin, 2014; N. Martin, 2008; N. Martin, 2009a,2009b Srinivasan & Bhat, 2013).

Adapting dance movement therapy skills such as mirroring, reflecting body movements, being present with the body, and synchronizing movement interactions (M. Martin, 2014) seems to be effective at creating therapeutic spaces, sharing experience and emotional states through resonance to evoke sensory awareness and expression, and communicating unspoken symbolic expressions through tactile and kinesthetic art materials (Durrani, 2014; Henry, 1992; N. Martin, 2008, 2009a, 2009b; Schweizer, Knorth, & Spreen, 2014). Moreover, although this case study could not be generalized to other children with ASD, Durrani's (2014) work with art therapy showed the possibility of using art: art therapy increased predictability to reduce anxiety in children with ASD. Thus, more outcome-based or experimental research, including expanding beyond single-subject case studies is needed to support the claim that creative arts can be a unique early intervention tool for children with ASD.

Importance of early creative-arts intervention. Mirroring encourages the development of important skills that are related to basic brain mapping system which affects the behavioral functioning. Moreover, it is related to empathy building which is related to relationship development and issues related to emotions: attachment, attunement (Berrol, 2006). Researchers have argued that the integration of dance movement therapy into early interventions could provide a source of communication and social interaction (Koch et al., 2014; M. Martin, 2014). For example, Koch, et al. (2014) suggested that (1) embodiment approaches using the body as a basic resource on which to focus and adjust interaction patterns and movement feedback and (2)

a nonverbal body approach such as mirroring are beneficial for children with ASD since these dance movement therapy approaches draw out an individual's kinesthetic empathy and, in turn, improve that individual's social and interaction skills.

Koch, et al. (2014) conducted a quantitative study of the impact of mirroring with a sample of 31 individuals with ASD (*SD*=7.7, age range: 16-47 years). (p. 340). The participants were contacted via flyers or recommended by their physician or psychologist then matched based on their sex, age, and severity of diagnosis for treatment group (n = 16) and control group (n = 15). All participants received seven weekly, 60-min manualized interventions then intervention group had an emphasis on mirroring exercises with verbal processing. The procedure consisted of a warm-up, dyadic movement, a Baum circle, and verbal processing for intervention group whereas control group only had verbal processing part. During the Baum circle, a volunteer initiated a movement to express his or her feelings through music that the volunteer had brought for the session, and then, all the other participants followed this movement kinesthetically. This was meant to build rapport and empathy (Koch et al., 2014).

The Heidelberg State Inventory, the Questionnaire of Movement Therapy, and the concept of co- and self-regulation from Eberhard-Kaechele (Koch et al., 2014) were used as instruments for the pre- and posttest. The findings indicate that mirroring had a reliable effect on improving the psychological well-being, body awareness, self-other awareness, and social skills of participants with ASD, and age was not a significant influencer on the dependent variables. Koch et al.'s (2014) study was limited by its small sample size and lack of randomization, moreover, whether the results can be generalized to children is questionable due to the wide age range of the participants.

M. Martin (2014) expanded on this interaction of bodily movement for the existence of a relationship between motor development and social communication development in ASD, creating a potential early intervention tool, since the challenges caused by motor, social, and

communication deficits in ASD are viewed as connected issues (M. Martin, 2014). M. Martin argued that using dance movement therapy techniques such as mirroring could overcome challenges in social understanding and communication development using a broad array of nonverbal body movements and starting in early childhood. Thus, dance movement therapy can be a mediator for improvement and change.

Moreover, M. Martin (2014) argued that dance movement therapy could be an effective intervention for building joint attention, one of the core problems among children with ASD, by helping these children to create their own symbolic and communicative gestures as a foundation for potential language development since dance movement therapy is a speculative tool to understand others' actions and gestures. M. Martin's four-phase framework reflected the developmental perspectives. Initially, establishing safety and regulation, then mirroring, were emphasized for building connection and engagement for body awareness, body coordination, and body's natural rhythm. Reflecting and attuning with the body, having synchronizing movements and interaction, and mirroring with rhythms were highlighted dance movement therapy tools to connect and communicate because full-body integration affects awareness in the body; thus, self and others (M. Martin, 2014). M. Martin also suggested that facilitating dance movement therapy elements in the assessments could guide the starting point for treatment of the children with ASD, since all children have their own shaped body movements and rhythms revealing information about their own natural rhythm and body needs. Thus, observing individual movements could be a fundamental starting point for therapeutically changing liminal spaces in children with ASD.

N. Martin (2009a, 2009b) argued for the possible effects of art therapy as an early intervention tool for children with ASD, highlighting six specific problem areas: imagination or abstract thinking; sensory regulation and integration; emotions and self-expression; developmental growth; visual-spatial skills; and recreation or leisure skills. Following N. Martin

(2008), specialized art projects can use various art materials and tools to target these areas, thus creating improvement. For example, facial processing can affect self-awareness and target developmental growth.

N. Martin (2008) compared the portrait drawings of children and adolescents with ASD (n = 25) to those of neurotypical children (n = 15) using the Portrait Drawing Assessment, which was developed by her. Each participant had a maximum of 30 min to complete a portrait of the investigator, who also drew each participant's face to provide visual feedback; the task was video-recorded. They were allowed to make an incentive free drawing after the portrait drawing with the researcher. The Portrait Drawing Assessment documented 13 drawing characteristics (resemblance to facilitator, pressure, line quality, size, detail, color use, shading, ability to follow instructions, drawing developmental state indicated, inaccurate schema attempted/used, projection/identity confusion, incentive drawings, and text included in drawing) and 17 behavior characteristics (primary mode of communication, echolalia, preservation, self-stimulating behaviors, attention to facilitator's face while drawing, eye contact, overall attitude toward task, affect, social behavior, identification of portraits, frustration toward procedure, intervention used to remain on task, literacy, object attachment, compulsive or controlling behaviors, handedness, and sensory exploration of materials).

N. Martin (2008) concluded that drawing a portrait could be an effective means of connecting and engaging in a relationship with children with ASD, as well as enhancing their understanding, although she found no distinctive evidence. The pilot study also had limitations. For instance, it did not provide enough evidence to prove the ways in which hypo- or hyper-iconic skills affect children and adolescents with ASD (N. Martin, 2008). However, Martin's study had some reliability issues, and she could have made additional efforts to enhance internal reliability: (a) she both administered the task and assessed the drawings; (b) she did not recruit the comparative and experimental groups from multiple sites; and (c) she included a range of

participant ages, which could have affected their drawing skills. Age related issues can skew data for studies such as this one because natural maturation in human development can affect drawing skills and interpersonal engagement. Nevertheless, her analysis and data were peer reviewed and included some notable findings about using portraits with working with children with ASD.

Review of Benefits and Efficacy of creative arts approach for children with ASD.

The strength of creative-arts therapies is derived from their combination of the body and various art materials with embodied spontaneous experiences, imagination, and abstract thinking. The continuous focus on improved communication skills, social skills, awareness, and sense of self is pivotal in early interventions focused on children with ASD because improvements in these areas can help such individuals change (Durrani, 2014; Koch et al., 2014; Kuo & Plavnick, 2015; M. Martin, 2014; Richard et al., 2015; Schweizer et al., 2014; Srinivasan & Bhat, 2013).

Many dance movement therapy and art therapy researchers have analyzed the effectiveness of creative arts therapies for children with ASD (Schweizer et al., 2014; Srinivasan & Bhat, 2013). Schweizer et al. (2014) reviewed 18 qualitative studies to classify core elements of art therapy in working with children with ASD. The theoretical frameworks of those studies were mostly based in "developmental psychology, art theory and psychotherapy theory" (p. 579) that relied on art therapy's model context outcomes. The four main areas of operation in art therapy were: (1) therapeutic meaning of art and the forms of expression; (2) the therapist's behavior and interaction towards the client with materials; (3) the context of therapy and treatment: setting, reason for referral, and duration of therapy; and (4) the intended short- and long-term goals as outcomes (Schweizer et al., 2014)

Schweizer et al. (2014) noted that art therapy helped children with ASD with explorative behavior and expressiveness. Tools such as drawing materials, paints, and clay offered children with ASD key evoking factors: various tactile and kinesthetic experience, as well as sensory awareness and expression (Schweizer et al., 2014; Lu, Pertersen, Lacroix, & Rousseau, 2010; N.

Martin, 2009a, 2009b). Furthermore, art therapy contributed to improved flexibility, as well as a more positive attitude toward self and others. Participants became more relaxed, had a better self-image, and improved communicative and learning skills (Schweizer et al., 2014). These children also changed in their social behaviors as well. They: (1) developed better engagement skills; (2) shared sensitive interactions; (3) became more aware and attentive with others; (4) had increased tolerance for interaction; (5) better expressed with words; and (6) became able to share experiences through nonverbal mediums such as drawing with the therapist (Schweizer et al, 2014)

In their arguments for art therapy, Schweizer et al. (2014) recommended more standardized art therapy treatment programs for children with ASD. Refined and standardized treatments, per the authors, may help articulate the basis for studying relevant changes in patients. Moreover, they emphasized studying not just successful treatments but also failed ones in order to have more defined core concepts for treatments; goals like sensory contact, expressivity, flexibility, social communications, and learning skills were, in their estimation, essential. However, the systematic review by Schweizer et al. (2014) did not include any experimental or quasi-experimental studies; thus, it was a limited review that only focused on qualitative research.

Srinivasan and Bhat's (2013) review of music and movement therapy for children with autism also supported the benefits of using a creative approach to treat children with ASD. The authors promoted development using embodied music approaches. Srinivasan and Bhat reviewed general music therapy approaches and targeted the skills highlighted in these approaches. These approaches included auditory motor-mapping training, melodic-intonation therapy, rhythm training, and improvisational music therapy; they targeted skills and provided specific goals and measurements to verify improvements.

For example, Wan et al. (2011) studied auditory motor-mapping training and found that it helped establish language production in nonverbal and low-verbal children by training them in the association between self-produced sound and articulatory movements, or by using auditory motor mapping as they hit drums or made finger-tapping sounds. Wan et al.'s study included 6 children with ASD who had minimal verbal skills with no intelligible words who had previously received speech therapy. They received 40 individual sessions of auditory motor-mapping training five times per week. During the study, none engaged in any other therapies outside of their regular school programs. The researchers conducted a periodic probe assessment, consonant-vowel approximation to measure child's vocal production in response to two sets of stimuli with by-syllabic words or phrases that were typical in early language acquisition. They assessed these children at baseline, during the experimental therapy, and after the therapy, and videotaped these assessments. The recordings were transcribed by the independent coders.

Wan et al. (2011) found that participants improved significantly in their speech output, with many showing better articulation of words and phrases such as "all done," "hello," and "coat on" (p. 4). Although this evidence is not sufficient to prove that these children had become fluent, it does suggest that auditory motor-mapping training was a critical step in these children's development of expressive language. Moreover, this is a sufficient example of how musical engagement through rhythmic body movements, singing, and joint music-making (Srinivasan & Bhat, 2013) can affect attention span and memory (Overy, 2008). Engagement with music seemed to improve auditory processing as it related to interpretation of incoming information as well as language-skill acquisition (Overy, 2008; Wan et al., 2011). Phonological and spelling skills are also known to be related to engagement with music (Srinivasan & Bhat, 2013)

Furthermore, Kim et al. (2009) investigated the social and motivational aspects of music therapy and suggested that individualized, patient-centered improvisational music therapy could facilitate joint social engagement and improve both verbal and nonverbal communication in

children with ASD (Kim et al., 2009). Kim et al.'s (2009) randomized controlled comparison study applied two conditions (improvisational music therapy and toy-play sessions) with Korean children ages 3 through 5 years (n = 10, all males). The predefined target emotional and motivational responsiveness were: (1) joy, (2) emotional synchronicity, and (3) initiation of engagement by the child. The targets for interpersonal responsiveness were: (1) initiation of interaction by the therapist, (2) compliant response, and (3) no response. These were measured for the frequency and duration as children were video recorded for selected session: 1, 4, 8, 12.

The findings suggested marked difference: the improvisational music therapy condition had more engagement than toy play sessions (p<.05; Kim et al., 2009). Especially, 'joy' and 'emotional synchronicity' had significantly longer duration and frequency. Also, children showed more happy emotions and shared their affect with therapist when they were leading and not directed by the therapists. This had some clinical implications since children with ASD often find it extremely hard to initiate and sustain spontaneous engagement; thus, this suggested the crucial point of understanding the role of joint engagement and social development in children with ASD (Kim et al., 2009). Kim et al. concluded that the social-motivational aspects of musical interaction could affect emotional expression, motivation and interpersonal responsiveness in children with ASD. However, these findings, derived from a small sample, cannot be generalized.

This review presented more evidence that embodied music interventions could aid comprehensive multisystem development in children with ASD, building communication and social-emotional skills and facilitating behavioral and perceptuo-motor skills (Srinivasan & Bhat, 2013, p. 11), though there are limits to these studies since many designs, assessments and treatment protocols lack systematic methodology to be replicable (Srinivasan & Bhat, 2013). Moreover, there needs to be more therapeutic interventions only targeting or addressing emotional and expressive interpersonal functions in children with ASD (Kim et al., 2009).

Creative arts approaches for Parents Training

Thayer (2016) attempted to evaluate a Developmental Individualized Relationship (DIR)-based creative-arts therapy program for children with ASD. The researcher recruited 21 participants from a nonprofit, parent-founded private day school to examine the accuracy and outcomes of the program under evaluation. All participants had been diagnosed with ASD and were aged between 5- and 21-years-old (Thayer, 2016, p. 48). Per Thayer (2016), 45 min of music or art therapy sessions were provided at least once per week during the school year. The therapist collected data from the parents and the classroom teachers at the end of the second trimester (Thayer, 2016). Only one participant dropped the study due to medical reasons (Thayer, 2016, p. 60). The Greenspan Social-Emotional Growth Chart, the Functional Emotional Assessment Scale, and the Developmental Assessment for Individual with Severe Disabilities were used to gauge social and emotional growth in the children with ASD, and the result from pre- and post- test suggested that children could positively develop social emotional skills through creative arts therapies program (Thayer, 2016): statistically significant changes in social emotions were found.

The Moustakas modification of the Stevick-Colaizzi-Keen Method was used to qualitatively analyze the treatment log data of participants: three themes were found including regulation, engagement, and communication (Thayer, 2016). However, the study had limitations related to controlling the participants' environment; they were allowed to engage in other outside treatments such as behavioral therapy during the period of the study. Yet, the positive changes associated with DIR-based approaches demonstrate the promise of a relationship-based approach with creative arts therapy.

Allgood (2005) showed the possibility of family-based creative arts therapies through a 7-week family-based group music therapy intervention, examining the impact on parents' perceptions of their children with ASD. In this group music therapy model, structured, 45-min,

family-based sessions were held at a specialized private therapeutic school. At least one primary caregiver attended each session. The participating children with ASD were in several age ranges (0–3, 4–6, and 7–10 years), and the sessions were adequately structured for these age ranges (Allgood, 2005). Semi-structured pre-session interviews were conducted to ascertain the parents' and children's experience with music, the quality of the parent–child relationship, and both groups' expectations for the 7-week intervention. Allgood (2005) also conducted focus-group post-session interviews with parents.

Parents perceived the intervention positively: they mentioned gaining new insights about themselves and their children. These new insights were connected to changes in the parents in the following: (1) understanding the importance of their relationship with their child; (2) identifying their child's strength; and (3) understanding their changing role with their children (Allgood, 2005). Although Allgood's study had limitations in terms of time, opportunities, and types of group format, it provided evidence to support ongoing family-based interventions that promote indirect parental training (PT) and the therapeutic effects of music therapy sessions.

Parental Empowerment Through Creative-Arts Based Training

Despite the possibility of effective treatments or interventions that use the creative arts to help children with ASD, creative-arts therapies for children with ASD are still generally underrecognized outside of their own field. Most well-known research approaches are evidence-based, and many interventions largely focus on behaviorally based techniques (Autism Speaks, 2016). Furthermore, hybrid implementation with the partnering community (Shire, Chang, Shihm Bracaglia, Kodjoe, & Kasari, 2017) and the expansion of caregiver-mediated intervention in the community setting (Brian et al., 2017) are the latest trends in using the behavioral approach in early interventions for children with ASD.

Although this notion of parental involvement early in children's lives is not new (Matson et al., 2009), the recent trend toward parents acting as mediators is promising because of the

feasibility, acceptability, and cost-effectiveness of parent training (Brian et al., 2017) for this population. Incremental financial costs for providing various professional care and services result in a significant burden; therefore, access to these services is limited (Ganz, 2007; Young et al., 2009). Thus, parent-implemented intervention is an appealing way to optimize natural resources that are already provided to those children within their environment: the family system. Furthermore, parental coaching can build parents' own competence and confidence even as they meet the needs of their children; thus, such provision of parent mediation can empower parents and children at the same time (Ingersoll et al., 2016). Therefore, parent training is also potentially related to parents' self-efficacy and stress levels.

The use of creative-arts-based parent training to understand, recognize, and learn emotions and expressions as part of early interventions for children with ASD can help children with ASD to build competency in understanding and recognizing emotions from both facial and body-based expressions (Durrani, 2014; Kim et al., 2009; Koah et al., 2014; N. Martin, 2009a, 2009b; Thayer, 2016; Richard et al., 2015). The embodied experience through the creative-arts approach includes touching, imitating, pointing, and mirroring skills; this nonverbal communication is critical for joint attention, social communication, and interaction. Dance movement therapy can especially reinforce these nonverbal skills through empathy enhancement and embodiment (Hildebrandt, Koch, Fuchs, 2016; McGarry, & Russo, 2011). Art therapy offers emphatic opportunities (Leong, 2013), while art-making with the hands and various materials provides other sensory experiences (Schweizer et al., 2014; Waters & Silberg, 2002). These areas of attention are the core focus of other mainstream parent-mediated interventions: (a) social communication, (b) imitation, and (c) play. (Bearss et al., 2015)

Conclusion

The nature of ASD lies in the diversity of its symptoms. This complicates the systematic design and assessment of children with ASD, whose cases are as varied as the children

themselves. Collective efforts are necessary to make a difference in understanding and supporting children with ASD, who think uniquely and creatively (Grandin, 1995). Based on the literature review, training parents has promise. In particular, using the creative arts therapies in parent training will help parents acquire skills to understand their children from developmental perspectives. Also, learning of creative-arts-therapy skills will give parents an opportunity to experience art, that could lead to the exploration of using art in play with their children at home. Here, creative-arts-based parental training is grounded in art, and has a fundamental belief in process with art, creativity, and play in child-development. This creative approach will support parents' ability to act as therapists (Matson et al., 2009, p. 872) for their children. Thus, these training sessions for parents will be a promising chance for parents to have a better understanding of their children and ASD to form improved parent-child relationship.

CHAPTER 3

Method

Design

The researcher, with a parent co-facilitator (PF), conducted six weekly sessions of the Creative Arts-Based Parents Training (CAPT) program for parents of children with ASD from February to March 2019. The sessions took place in a private conference room in Yeoido-dong, Seoul. The study included 17 participants divided into two experimental groups (8 participants in the morning group and 9 participants in the afternoon group) and 15 participants in the control group. They were recruited from local centers, children's hospitals, parent support groups, and Internet-based parent support groups in Seoul with the help of a flyer.

The researcher and PF met five times prior to starting the CAPT program sessions to review CAPT materials and discuss the organizational process and materials in the workbook that the PF would use in each session. Each program session took 3 hours, with time for art journaling, psychoeducation, the art-experiential process, and open discussion. A workbook approach was used to structure the session. The researcher organized and prepared the workbooks and art materials. Pre-study measures —a short version of the Korean Parenting Stress Index (K-PSI; 32 items, 10 mins.), Korean-Parenting Efficacy Test (K-PET; 29 items, 20 mins.), and a questionnaire about the participants' demographic information—were conducted in Session 1. Post-study measures were the same except that a self-evaluation of participation was included in place of the demographic survey, and all was collected in Session 6. A focus group interview was conducted during Session 6, as well. The psychoeducation and experiential parts of Sessions 1 and 6 were shorter than in the other sessions because of the need to collect these data. Otherwise, the structure and the timing of activities remained the same throughout the program.

The sessions focused on information about typical and ASD-related child developmental issues. The materials included basic creative arts therapies exercises that parents could utilize in play with their children with ASD. Creative arts-based approaches were emphasized throughout, especially in each art experiential part. Also, art-based exercises were organized with psychoeducational information to encourage parents to understand their children. The program attempted to provide 1 hr of art experience, and *art journaling* at the beginning of each session. Each participant made an art entry for each session and the artworks were collected. This was an open artmaking time at the beginning of each session. The participants were guided with: "Please draw/make/write to describe your relationship with your children for the art journal inquiry. Then, please pick a word(s) or sentence(s) to describe the nature of your relationship (e.g., difficult, stressful). If there is any, please give us the title for your representation." The intention of the art journaling was to check-in in the group and talk briefly about weekly experience with their children. However, this art journaling process was not intended to be group therapy. This was a part of creative experience for parents to feel about the powerful process with art.

The CAPT program had several objectives: (a) to teach parents creative arts–based skills with psychoeducational materials to help them better understand their children; (b) to help parents build a more secure parent-child relationship; and (c) to empower parents by teaching them necessary skills to support their children. Mixed-methods were used to ensure "the concept of "triangulation" (Berrol, 2012, p. 242). I am using different methods for gathering information to examine measurable effects and explore and explain the phenomena and process. Data were gathered using (a) a short version of the K-PSI; (b) the K-PET; (c) questionnaires; (d) art journaling; and (e) a 30-min. focus group interview.

The parents in the control group did not participate in any psychoeducational parenting group during the duration of the study period. The parents in the control group only completed the K-PET, K-PSI, and demographics survey measures.

Site

The site was a conference room locally managed by a job-consulting organization in Yeongdeungpo-gu, Seoul, Korea. The site was rented for six weeks. The researcher was a trained art therapist who held a certification in art therapy and a license in professional counseling in the United States. Weekly 3-hr sessions were conducted every Sunday morning from 10:00 a.m. to 1:00 p.m. for the morning group, then from 2:00 p.m. to 5:00 p.m. for the afternoon group. No children participated in the educational sessions of the CAPT program.

CAPT Sessions & Materials

Each session was three hours long, and the researcher created workbooks for use in the sessions. The original workbook from the pilot study was edited and used for this study. The workbook contained psychoeducational materials and information on creative arts approaches. The researcher modeled the process in Session 1, introduced the CAPT program, and confirmed the participation with agreements.

After Session 1, the PF introduced art journaling and then led the sharing part of the 1hr art journaling section of the program with the researcher. The researcher and PF guided and held the space together for the art sharing. The researcher addressed some behavioral and developmental issues related to some participants' individual children briefly when needed, but the art process was the main focus, based on each participant's level of willingness. This art journaling component composed the first part of each session, and then the facilitators delivered 30 min of psychoeducational material. Following that, the researcher generated creative arts therapies–based activities—the experiential learning opportunities. The last part of the program was open discussion. The researcher answered any questions regarding the program's contents and the individualization of its contents, including creative arts approaches. The PF joined open discussions and shared her experiences and insights. An example of the sessions' structure is shown in Figure 1. Full information on every session is given in Appendix Z.

Week 1: ***General information about ASD: Concerns & Anxiety***

- 20 min: Introduction to the CAPT program & confirming of the participation agreements for the study
- 60 min: Art journaling (my relationship with my child)
- 40 min: General understanding of ASD & finding the child's strengths
- 30 min: Experiential—understanding my worries and anxieties
- Free home task: child's play, routine, space, and anger
- 30 min: pre-study questionnaire, K-PSI, K-PET

Week 2: ***Understanding Non-verbal stages & Communication***

- 60 min: Art journaling (my relationship with my child)
- 30 min: Child development 1. Brain and language development
- 60 min: Experiential—understanding non-verbal communication
- 30 min: Open discussion: understanding my child
- Free home task: behaviors and gestures

Week 6: ***Emotions & Expressions: Building relationship***

- 60 min: Art journaling (my relationship with my child)
- 20 min: Emotions & expressions - sense of self & emotional development, relationships, and social-skills development
- 20 min: Experiential—expressing emotions
- 20 min: Open discussion: understanding my child
- 30 min: Post-study questionnaire, K-PSI, K-PET
- 30 min: Focus group interview

Figure 1. The Example of Sessions' Structure (Weeks 1, 2, 6)

Art experiential learning. Art experiential learning encouraged the use of a variety of methods and materials to develop parents' understanding of their children and reinforce the concept that there is "creativity within all of us" in everyday play (Lesner & Hillman, 1983, p. 113). All experiences were meant to teach parents to foster engagement and intimacy, hold their children's interest, and facilitate joint attention in their "shared world" at home (Greenspan & Weider, 2006, p. 65). Moreover, the shared experience was meant to create better interaction to support the expression of emotions in children with ASD. Participants were encouraged to replicate, adapt, and change the learned creative approaches with their children in play at home.

Feedback was provided during the open discussion if any participant had a question regarding the creative implementation of the skills at home.

Workbook. A workbook was used to organize and structure each session (see Appendix B for translated parts of the workbook) so participants could follow up on the sessions. An introduction in Session 1 provided general information about the CAPT as a program to support the parent-child relationship with play in the early intervention period. The goals of the program, the researcher's biography, and the schedule and overview of each session were provided. Session 1 was focused on general information and concerns about ASD. At the end of the session, all participants completed the pre-study measures. Each session had specific topics: non-verbal communication for Session 2; body and gesture for Session 3; sound and communication for Session 4, art and sensory regulation for Session 5, and Emotions for Session 6. At the end of Session 6, post-study measures were completed. Also, a focus group interview with four prepared questions was conducted with participants. Details of the schedules for each session are presented in Appendix C. The topics of written educational materials and free home tasks for parents from the workbook are listed in Table 1.

The development of the workbook was based on recommendations and research from literature. For instance, Session 2 carried psychoeducational materials about neurotypical development, neuroplasticity, and language development in children. The researcher and PF conveyed information about early child development in relation to early brain development and plasticity. The importance of early intervention was also emphasized. Then participants were asked to draw their children's brain and wishes in relation to developmental and behavioral tendencies using humor and metaphor. Then participants were asked to write down their own definition of language. Following, the second part of psychoeducational materials (language development, critical period, language delay and delay in social development) were explained. Art experiential (see Appendix F) was introduced with aims for participants (1) to understand

non-verbal language and initial communication development in early development in children; (2) to experience the difficulty in communication and expression without language, and (3) to be more open to non-verbal communication with their children. Workbooks were utilized during the session time only and they were not taken by the participants during the six-week program. However, participants were free to take notes and photos of the workbook. Home tasks were given for the purpose of discussion in the following session.

Table 1

Topics of Written Educational Materials & Home Tasks in Workbook

Week	Topics of written materials
1	• ASD, general symptoms and characteristics • Intervention goals and comprehensive integrated treatment program • Early intervention and importance • Treatment case • Understanding the strengths of the child with ASD Home task: Think about the child's play, routine, space, and anger
2	• Child development, brain and language development • Neuroplasticity and early intervention • Brain development and understanding the child's behavior tendencies • Language development and critical period • Language delay and social skills development Home task: Think about the child's behaviors, gestures, and favorite songs
3	• Understanding child development: joint attention, gestures, and pointing • Gestures: nonverbal development ➢ Joint attention

- Initiation period
- Vocalizing period
- Naming period

- Theory of mind

Home task: Think about the child's favorite/hated sounds, sense, and communication method

4

- Starting with sound: nonverbal communication
- Mirroring sound
- Language development of ASD
- Alternative method: argumentative alternative communication (AAC)
- Understanding the child's communicational method

Home task: Think about the child's sensory development and favorite/hated touch

5

- Sensory development
- Important development in visual perception
- Child development and art
- Art materials and sensory development/regulation
- Use of art for play

Home task: Think about the child's emotions, special expression, and relationship

6

- Zone of proximity
- Understanding the child's ecological environment
- Sense of self
- Emotional intelligence

- Emotions, relationships, and attachments

Participants

Originally 26 participants were recruited for the experimental group. However, 19 came for Session 1. Then one participant from the afternoon group (female, 39) had personal problems and conflicts with other group members and dropped out after Session 3. In addition, another participant in the morning group had childcare conflicts and decided the child's father would remain as the family participant. Hence, the experimental group included 17 participants, eight in the morning group and nine in the afternoon group. The control group included 15 participants. All participants chose whether to attend sessions and be part of the experimental group or to not attend sessions and be part of the control group. Most of participants in the control group received measures online and filled them out except five participants who sat down with PF in person to do so. None of participants in the control group were involved in any parenting workshop at the time of the study.

All participants were primary caregivers of children with ASD. The children of participants were required to be preschoolers and have diagnosed by a medical professional. All children had ASD diagnosis or borderline ASD, a commonly used Korean term reflecting cultural acceptance of ASD, especially for high functioning individuals. Also, some of the participants' young children were diagnosed with a developmental delay instead of ASD, due to their young age, but their actual diagnosis was ASD. Such preference for developmental delay for young-aged group of children with ASD is common in Korea. The mean age of children of participants in the control group (M=5.7) was slightly higher for the children of participants in the experimental group (M=3.9). No children were allowed to be in the actual sessions with parents in the experimental group.

Recruitment took place through the Internet and at local parents' support groups, with the help of a flyer. The flyers were sent to the Seoul Support Center for Family with Disability, Seoul Guro Parents' Solidarity for the People with Disabilities, the Korean Parents' Network for People with Disabilities, the and Gangseo Rainbow Parents' Association through the PF. Also, flyers were sent to Internet-based parent blogs for parents of children with ASD and other developmental disorders with permission from the blog managers. Flyers were sent to the PURME Foundation and the NEXON Children's Rehabilitation Hospital, as well. A 10-min telecommunication-based introductory screening process was generated for all participants in the experimental and control groups.

The participants' demographic information is shown in Table 2. This information was based on answers the participants provided in the pre-study questionnaire.

Table 2

Demographic Information about the Participants in the Experimental and Control Groups

	Experimental (*n* = 17)				Control (*n* =15)			
	Female (*n*= 12)		Male (*n*= 5)		Female (*n*= 11)		Male (*n*= 4)	
	Mean	N (%)	Mean	N (%)	Mean	N (%)	Mean	N (%)
Age	38.8		44.2		37.9		39.7	
Education								
High School		3(25%)		4(80%)		11(100%)		4(100%)
Undergraduate		9(75%)						
Master's degree				1(20%)				

Most of the participants were mothers, in both experimental and control groups yet some fathers participated. Two married couples attended the afternoon session for the experimental group and two couples were part of the control group. All females in experimental and control groups were homemakers and were not employed; all males in experimental and control groups

were employed. The participants' average age was 40.4 years in the experimental group (N = 17) and 38.3 years in the control group (N = 15). All accepted their children's diagnosis. The children had been diagnosed using various standard assessment instruments for ASD: the Korean version of the Autism Diagnostic Observation Schedule (ADOS-2 [Lord et al, 2012], K-ADOS [Yoo, & Kwak, 2007]), the Korean version of the LENA Developmental Snapshot (Gilkerson, & Richards, 2008; K-SNAP [Bae, Yoon, & Sul, 2015]), the Wechsler Scale of intelligence (WISC-IV [Wechsler, 2003], K-WISC-IV, [Kwak, Oh, & Kim, 2011]); the Korean version of the Child Development Review-Revised (Harold & Heidi, 2004; K-CDR [Kim, & Shin, 2007]), and the Korean version of the Childhood Autism Rating Scale (CARS; Kim, & Park, 1996; Schopler, Reichler, & Renner, 1986). The participants' children in the experimental group were boys (12) and girls (3) and their average age was 3.9 years; of the participants' children in the control group 11 were boys and 2 were girls (M = 5.7 years old).

All participants signed an informed consent form and approved the use of their artwork for academic assignments including but not limited to doctoral research. They also agreed that their artwork would be reproduced and presented in academic work. They all acknowledged that they could withdraw their participation at any time. Two participants in the experimental group withdrew: one in the morning group due to childcare problems after session 1 and the other in the afternoon group due to her personal problems and conflicts with other members after Session 3. Therefore, they were not included as participants, and data collected from them was excluded from the study. Some absences occurred. Eight participants attended all sessions, 5 missed one session, and 4 missed two sessions. Overall, there was an 88% attendance rate.

Measurement

K-PSI-SF. Abidin (2012) developed the Parenting Stress Index (PSI) to measure parents' experience of stress in parenting. The PSI evaluates the parenting system because the PSI focuses on domains in which stress might occur. Four characteristics were measured: (a) child

characteristics, including six subscales; (b) parent characteristics, including 7 subscales; (c) (situational/ demographic) life stress; and (d) total stress. The reliability and validity of the Korean version of the measure across diverse populations has been verified (Jung, Lee, & Park, 2012). Moreover, the test demonstrated the reliability of subscales of child characteristics, which ranged from .78 to .88, and the reliability of subscales of parent characteristics ranged from .75 to .87 (Jung, Lee, & Park, 2012). The reliability coefficient of the two domains and the total stress scale was r = .96 or greater, suggesting a high degree of internal consistency. For the study, a shortened version of the K-PSI (Korean Parenting Stress Index-Short Form: K-PSI-SF) was used to measure parental stress levels among participants. K-PSI-SF had internal consistency reliability (Cronbach's α = .91) and the test-retest reliability r =.77 (N=328, $p < .001$) for total stress domain. The shortened version contained 32 items for 10 min.

K-PET. The Korean-Parenting Efficacy Test (K-PET) has been widely used to assess parents' ratings of competence with their children in Korea. This measure has been adapted from other measures: The Parenting Sense of competence (PSOC; Gibaud-Wallston & Wandersman, 1978) and Parenting Alliance Inventory (PAI; Abidin & Brunner, 1995). Kim (2009) translated these measures and used them for the process of standardization. K-PET had two domains for testing: parent domain (15 questions) was for the test taker's self-evaluation as a parent; and the spouse domain (14 questions) was for test taker's perceived participation and support from the spouse in parenting. The reliability and validity of the test measures has been verified (N = 731). It demonstrated internal consistency reliability of parent domain as r =.88 (subscales: competence, r = .85; safety, r=.81), and spouse domain as r = 92 (subscales: fostering participation, r = .90; consensus, r = .85). The test-retest reliability was r =.79 (N=113, $p < .01$) for parenting domain and r =.80 for spouse domain (N=113, $p < .01$) after 1 month. The version contained 29 items for 20 min.

Data Analysis

Quantitative Scales and Statistical Analysis. All experimental and control groups completed pre- and post-test K-PSI-SF (Jung, Lee, & Park, 2012), and K-PET (Kim, 2009). The experimental group participants used the paper-based marking system during the session time then the answer sheets were scored into the computer program by the researcher. The control group participants used computer-based marking system which were directly sent to them. The individual scores were automatically calculated by the computerized scoring system run by Inpsyt (www.inpsyt.co.kr). Statistical Package for the Social Sciences (SPSS) was used for the statistical analyses of the collected data. Descriptive statistics and independent sample t-tests were calculated to determine differences between the experimental and the control groups. Also, the effect sizes were calculated.

Qualitative analysis. Collected answers from pre- (Session 1) and post-intervention (Session 6) questionnaires were analyzed. Qualitative data from art journaling from the experimental group were analyzed using Moustakas's (1994) modification of the Stevick-Colaizzi-Keen method of analysis of phenomenological data. Total 90 art journaling from 17 participants were gathered. Individual themes of each drawing were identified based on its representation of drawing. Some drawings had written words. 32 drawings were excluded due to each individualistic character, followingly 58 drawings were grouped together with sub themes then identified into 7 main themes. The 30 min open-ended focus group interview also used Moustakas's (1994) modification of the Stevick-Colaizzi-Keen method of analysis of phenomenological data. Researcher and PF led the focus group interview during the Session 6. It was a 30-min open discussion and had four planned questions: (a) How would you describe your experience of the CAPT program?; (b) How did you find the creative approaches?; (c) How did you implement what you learned from the sessions?; and (d) How do you feel about yourself after the six-week CAPT program? These four questions were written in the Session 6 and were

freely asked by the research at once. Then participants had open engagement answering and agreeing to each other's comments. The interview was recorded by the researcher. Since interview was recorded in Korean, the process of analysis was done in Korean first then the main themes were translated into English. First, the word-by-word transcription of the whole interview was executed by researcher. Then thematic process was done. Although there were 17 participants (8 participants in the morning group, and 9 participants were in the afternoon group), 9 participants (7 in the morning, and 2 in the afternoon) were the main speakers during the actual interview, and the rest gave agreements to the others' spoken words. 1 participant in the morning group, and 3 participants in the afternoon group wrote briefly about their opinions under the given questions in the workbook. These written answers were also included for the thematic process. Words-by-words process had sub-group themes then identified into 5 main themes.

CHAPTER 4

Results

In the study, both parents who experienced the six-week CAPT program and those who did not reported behavioral and emotional changes as they assessed their stress levels, anxiety, competence, relationships, and communication with their children. There was no difference in age between the experimental and control groups, $t(25)=1.38$, $p=.19$. While there were fewer men in each group, there was no difference in gender breakdown between groups $p=.86$, and all of the participants were Korean.

The results from the experimental group ($n = 17$) included some qualitative data on response to the six-week of the CAPT program. The control group only completed quantitative measures: K-PSI and K-PET.

Quantitative

K-PSI-SF. Table 3 displays the average scores of pre- and post-study K-PSI-SF scores in the experimental and control groups.

Table 3

K-PSI-SF Pre & Post Scores in the Experimental and Control Groups

	Experimental		Control	
	Pre	Post	Pre	Post
Total stress (TS)	76.89	70.29	80.93	81.47
PD	61.65	56.65	70.73	69.4
PCDI	74.12	72.18	78.06	79.8
DC	80	73.06	80	80.2

Note: PD stands for Parent Distress; PCDI stands for Parent-Child Dysfunctional Interaction; DC stands for Difficult Child.

The scores demonstrate that all of the participants experienced major stress as caregivers of their children with ASD. As the maximum score for all subscales was 100, it was apparent these

parents reported high levels of stress across all subscales and that the total scores were high. There was a significant difference in the change in K-PSI-SF scores favoring the experimental group, and, $t(17)=-2.72$, $p=.014$ after controlling for inequality of variances. There was also a significant change in scores for the Difficult Child subscale $t(16)=-2.68$, $p=.016$, again after controlling for inequality of variances. Examining these scores indicated that variances, while controlled by the statistical procedures, likely arose from the scores of three or four parents in the experimental group who rated themselves very differently at pre-test compared to post-test. The effect size for K-PSI-SF is shown below in Table 4. For effect sizes of .16 and .13 to be significant, there would have needed at least 21 or more participants in each group. There was significantly more change for the experimental group compared to the control group.

Figure 2. Comparison of Pre & Post Scores of K-PSI-SF between Experimental and Control Groups.

Table 4

Effect Size for K-PSI-SF Scores

	Effect Size
Total stress (TS)	.42
PD	.16
PCDI	.13
DC	.42

K-PET. The K-PET was used to evaluate parents' efficacy levels in their current parenting practices, the spousal relationship, and childcare concerns, and the total score reflected the evaluation of spouse help: (a) fostering participation and (b) consensus for their child-caring practices. The change in average pre- and post-study K-PET scores in the experimental and control groups are displayed in Table 6. and Figure 4. below. The average rating of efficacy level of participants in the experimental group increased (M =3.12, SD =13.68), and the average efficacy level of participants in the control group decreased (M =-.13, $S\ D$=. 45). However, there was no statistical significance found between groups $t(30)$=.912, p=.369. Effect size was .16 for reflecting no significant change between groups.

K-PET.

Table 5

K-PET Pre & Post Scores in the Experimental and Control Groups

	Experimental		Control	
	Pre	Post	Pre	Post
Efficacy	48.35	51.47	46.2	45.8

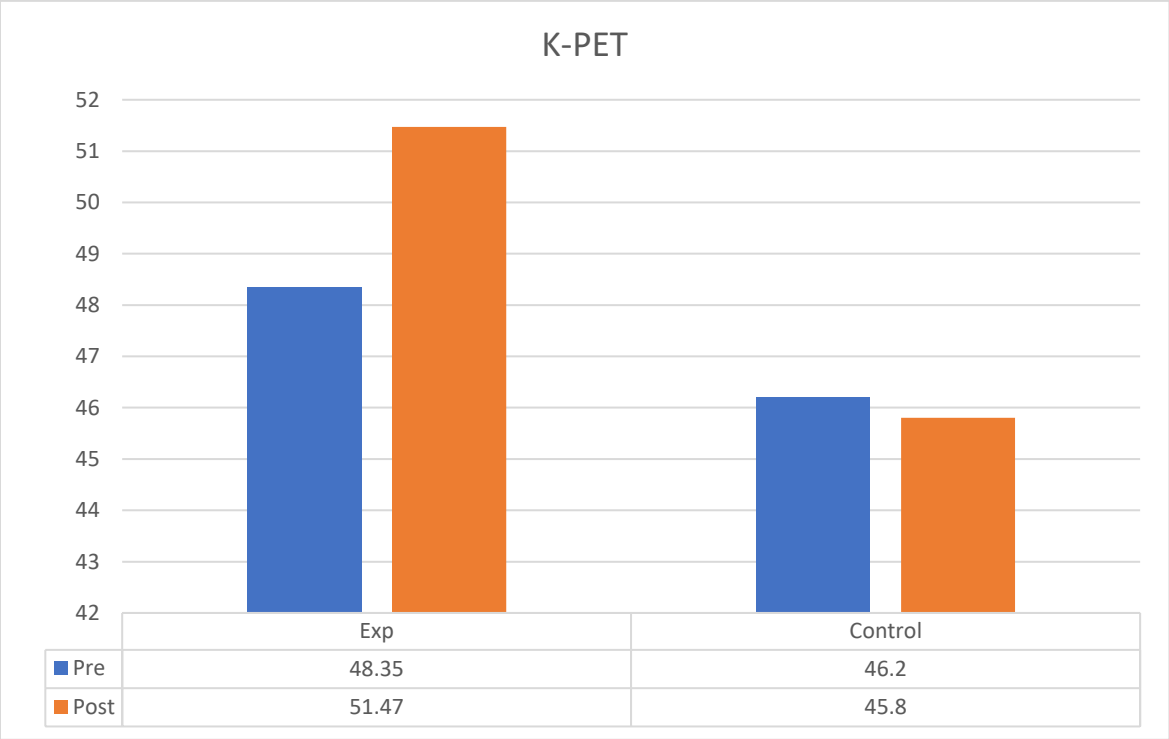

Figure 3. Comparison of Pre- & Post- Scores of K-PET between Experimental and Control Groups

Qualitative

Pre-study questionnaire. The pre-study questionnaire included six questions (Appendix D). Participants in the experimental group completed the pre-study questionnaire during Session 1 and the post-study questionnaire during Session 6.

The top five areas of concern parents had for their children were (a) difficulty in social expression; (b) lack of basic understanding of communication; (c) sensitivity to change and environment; (d) problematic behaviors, such as self-harming, throwing objects, running away, and jumping; and (e) emotional tantrums. All the children attended more than two therapy sessions per week. All participants stated one or more strengths in their children, such as positive attitude. In their spouses, they identified family-first attitudes and love and caring for the child as strengths. Participants also identified positivity and initiative as their own strengths.

Those who attended the intervention reported that their primary motivations were the desire to understand their children and receive information about help to treat ASD. In addition, they reported an interest in expressive art therapy and communication, childcare, and understanding the problematic behaviors of children with ASD. The study included five male participants who were fathers. One of them did not have his spouse attend, but he attended based on his spouse's recommendation. Most of experimental group participants were unfamiliar with creative arts therapies, especially dance movement therapy, and had never been exposed to these modalities. Some of them had some experience with art and music therapy because their children had some prior experiences with them. Most of experimental group participants had never attended such a session even though some of them were aware of available parent programs. The only exceptions were two experimental group participants who had previously attended parent education and training on ABA method and parent child interaction therapy.

Post-study questionnaire. The post-study questionnaire included 19 questions (Appendix E). In general, the experimental group participants were either highly satisfied or very satisfied, offering high satisfaction scores (4 or 5) about their experience of the CAPT program (maximum rating possible was 5). Only one participant reported moderate satisfaction. No experimental group participants reported any discomfort with experiential learning or art journaling, but the levels of satisfaction with experiential learning, art journaling, open discussion, and psycho education were slightly different – for example, among those who gave high satisfaction scores (either 4 or 5) in general, one participant reported moderate satisfaction for experiential and three participants reported moderate satisfaction for art journaling. Session 5 (art) was the most liked and satisfying session, followed by Sessions 3 (movement) and 6 (emotion). These three sessions were also identified as the most helpful. With the exception of one participant, all reported adapting at least one CAPT sessions at home: Sessions 3 (movement), 4 (music), and 5 (art) were the popular sessions for home implementation. Session

5 was the most adapted, but the participants reported some discomfort with creative engagement with their children at home because some of their children had sensory problems. For example, some of the children did not like to touch certain materials, such as sand and sticky doughs.

All experimental group participants reported enjoying the art journaling part of the program. For example, 82% stated that the sharing aspect of the art journaling in both making art and the sharing that came after the art journaling made them feel connected and provided them insights into their children and their parenting skills. Six participants said it was particularly meaningful to share their children's similarities and difficulties: they said this process of sharing through art journaling made them understand their children and their development issues better and accept their children from various perspectives. Four participants said art journaling helped them focus on the program by giving them a sense of comfort at the beginning of each session.

The participants reported that the CAPT program's strengths included sharing during art journaling and discussion. All participants said CAPT enhanced their parenting skills by giving them indirect situational help through the shared stories. Participants admitted that they had not known much their children's developmental issues and differences. They said that they realized the importance of emotions and play for development in children as well as the efforts of parents for the children's well-being. They described CAPT as a new kind of communicative approach for them to start fresh with their children. Also, some participants found CAPT to be therapeutic; they felt connection through stories of their children created a bond and the sense of a safe zone for their group experience.

All participants reported a positive influence from trying out the creative arts approaches with their children, especially regarding interactions and relationships. Some noticed visible changes in their children in the areas of emotions, relations, communications, socializations, problem solving, and creativity. Specifically, 70% reported they saw changes in their children's responsiveness and expression in emotions. Of 70% of these participants, 23.5% observed

emotional changes in relations; 29.4% noticed expansion of play; 17.6% noticed use of symbolic play; 17.6% found use of expressive words; 41.1 % found increased interaction; 11.7% noticed increased initiation, and 17.6% observed sharing with others as results of the creative approaches they used at home. One experimental group participant reported some changes in their child's efforts to use sound/language and everyday-life skills.

Nevertheless, experimental group participants found some weaknesses with the program: (a) lack of individual time compared to number of participants in one session; (b) desire to have more direct experiences using materials and art approaches; (c) desire to be organized by children's characteristics because they were so diverse (e.g., high-functioning only).

However, all participants said they would recommend the program to other parents of children with ASD and that creative arts approaches helped them build relationships with their children. Participants reported that creative arts approaches were (a) helpful to induce their children's interest and attention; (b) giving them ways to observe their children; (c) helpful in reading their children's responsiveness and building interactions; (d) offered ways to understand their children's sensory problems (likes and dislikes); and (e) offered ways for parents to expand play skills and find meaningful connections. The participants rated their (a) comfort levels with their children; (b) levels of stress; and (c) anxiety levels with their children (see Table 6). Their comfort levels with their children either stayed the same or increased, and their stress and anxiety levels either stayed the same or decreased, except for one female participant.

Table 6

Changes in Participants' Ratings of (1) Comfort Level with the Child, (2) Level of Stress, and (3) Anxiety Level with the Child

	Comfort	Stress	Anxiety
Increased	11	1	1
Same	6	8	6
Decreased	0	8	10

Art Journaling. Seventeen experimental group participants completed at least four art journals during the six-week program, totaling 90 art journals for analysis. The directions instructed the participants to: "Please draw/make/write to describe your relationship with your children for the art journal inquiry. Then, please pick a word(s) or sentence(s) to describe the nature of your relationship (e.g., difficult, stressful). If there is any, please give us the title for your representation." The directions asked participants to describe their relationships with their children, although most of the participants typically recalled events with their children during the previous week and then depicted their relationships by focusing on what they did together.

Some experimental group participants consistently provided titles for or writings about the drawings, which were reflected in their thematic analyses. The experimental group participants were willing to share and explain their drawings in conversation. Seven themes were found in 64% of the participants' drawings: (a) togetherness; (b) struggles and worries; (c) problematic behaviors; (d) family time; (e) change in children; (f) adaptation (in new school period); and (g) art and play (Table 7). The rest of the drawings (36%) did not have group themes and were more individualistic. Multiple themes emerged from the participants' art journaling. Through the clustering process, seven themes were analyzed based on thematical depictions in the drawings, notes from the participants' statements, the titles of and writings about the drawings, and interpretations of the scenes in the drawings.

Table 7

Themes

	Drawings (*N*=90)
	Drawings for analysis (*n*=58)
Togetherness	15.5%
Struggles & Worries	13.8%
Problematic Behaviors	15.5%
Family Time	17.2%
Change in Children	13.8%
Adaptation (in new school period)	15.5%
Art & Play	8.7%

Theme 1: Togetherness. Nine drawings focused on what parents did with their children at home. The drawings illustrated their relationships by depicting the way they played, walked, ate, and hugged. For instance, the third drawing of participant C from the afternoon group (Figure 4) showed how they played together with her child's favorite toy trains. She explained that she tried to interact with her child by making communicative hand gestures, whereas he insisted on playing alone using the repetitive play method with his trains. She mentioned that he usually did not like to interact with people because he had difficulty speaking. She commented that learning about creating a safe space helped her to develop the idea of having his usual toys around him, then use song and gestures for interactive play. Participant 9 from the morning group (Figure 5) also depicted herself playing with her child using facial expressions. She tried to use hand gestures and touch to teach him facial parts, such as the eyes, cheeks, etc., then she repeatedly mirrored facial expressions.

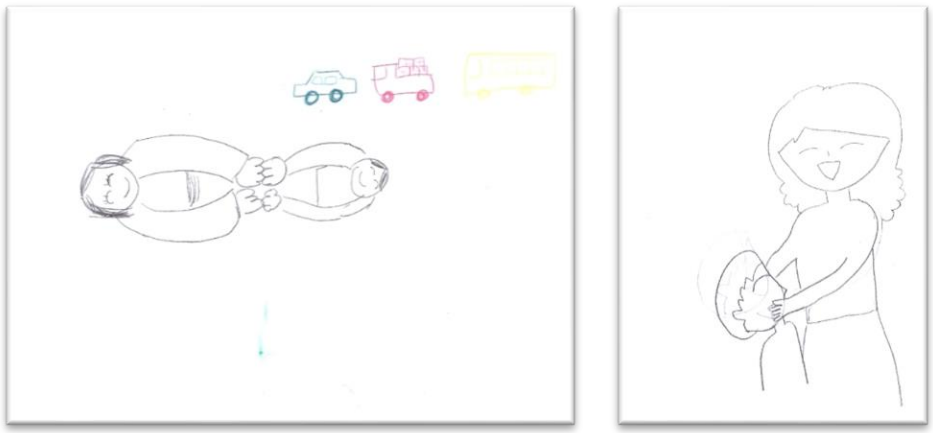

Figure 4. Participant C's Art Journaling (Left).
Figure 5. Participant 9's Art Journaling (Right).

Theme 2: Struggles & Worries. Some experimental group participants depicted the personal struggles of their children and their concerns about their children. Participants 3 and 5 (Figures 6 and 7) specifically explained their struggles with other family members at home. Their children often had a hard time expressing themselves using words, which caused significant communication problems with other family members (usually siblings) who were not so understanding of the children's aggressive, obstinate, and impulsive behaviors. Participant 3 especially explained how her child exhibited aggression while playing with siblings.

Figure 6. Participant 3's Art Journaling (Left).
Figure 7. Participant 5's Art Journaling (Right).

Theme 3: Problematic behavior. Some experimental group participants described problematic behaviors, such as potty training, obsessive behaviors, and impulsive and distracting

behaviors. Participants 6 and 7 depicted successful toilet training events during the six weeks. Participant 6 said she wanted to continue modeling with her girl and said that art was a very helpful method for explaining the process and delivering the toilet training message to her child.

Figure 8. Participant 6's Art Journaling (Left).
Figure 9. Participant 7's Art Journaling (Right).

Theme 4: Family time. Experimental group participants also depicted family time – including family trips – in their art journaling. For instance, participants depicted board games, water parks, play gyms, and bath time play. Participant C took a family trip to a water park as bonding time with siblings for her child with ASD (Figure 10), and Participant 8 used a board game with his son and wife as bonding time with his child. He said the board game was a useful opportunity for his child to use his words and expressions, as he did not like to use his words even though he was verbal and had an average language level (Figure 11).

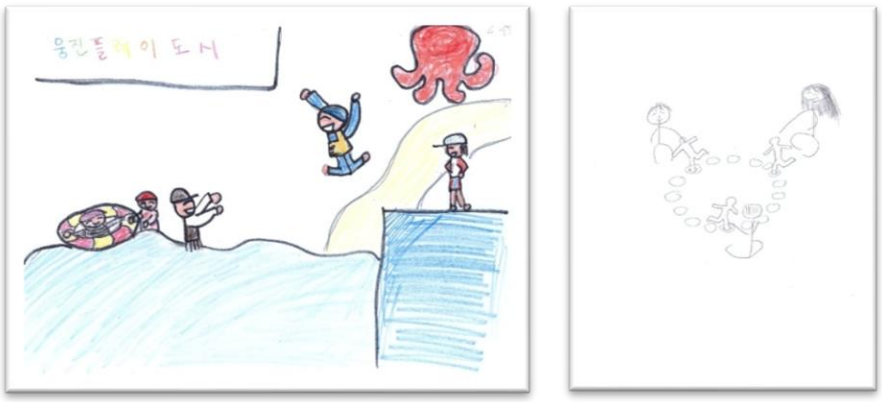

Figure 10. Participant C's Art Journaling (Left).
Figure 11. Participant 8's Art Journaling (Right).

Theme 5: Change in Children. Many experimental group participants detected and reported changes in their children over the six weeks. Participant D from the afternoon group introduced visual scheduling with her son and mentioned that it was helpful for her to set up a structure for him to adjust in his transitions and thus reduce his obsession with numbers (Figure 12). Participant B depicted relational changes with her son in her drawing. She mentioned that he became more agreeable and expressive and she presented the image of her son lying down on her lap, saying he had never showed such affection to her before (Figure 13).

Figure 12. Participant D's Art Journaling (Left).
Figure 13. Participant B's Art Journaling (Right).

Theme 6: Adaptation (in new school period). Some of the shared concerns among the experimental group participants included socialization and adaption in pre-kindergarten,

kindergarten, and future schooling. Nine participants expressed their concerns about their children's entry into new grades, but they also shared the positive adaptations occurring in their children. Participant 5 observed her child's petrified behavior during the first week since she was introduced to other children and a new environment for the first time in her life. Later, she also depicted the girl's adaptive behavior on Parents' Day, which helped her to relieve her worries. She mentioned that her child's social behavior was improving and that she began to use more words as she adapted to the new kindergarten environment (Figure 14). Participant 9 also depicted her son's good social behavior in play with other children in kindergarten. (Figure 15).

Figure 14. Participant 5's Art Journaling (Left).
Figure 15. Participant 9's Art Journaling (Right).

Theme 7: Art and Play. All experimental group participants reported trying to use expressive arts-based play with their children at home at least once. Participant 3 mentioned that different types of art materials were a good way in which to introduce and stimulate sensory sensitivity. Also, she said that using art was one way in which to expand her child's play (Figure 16). Participant D similarly commented to participant 3 about art as a way of expanding play. Her child had a specific obsession with numbers and focused only on writing or reading numbers. She introduced different types of art materials such as, play dough, to him and this was a successful play expansion (Figure 17).

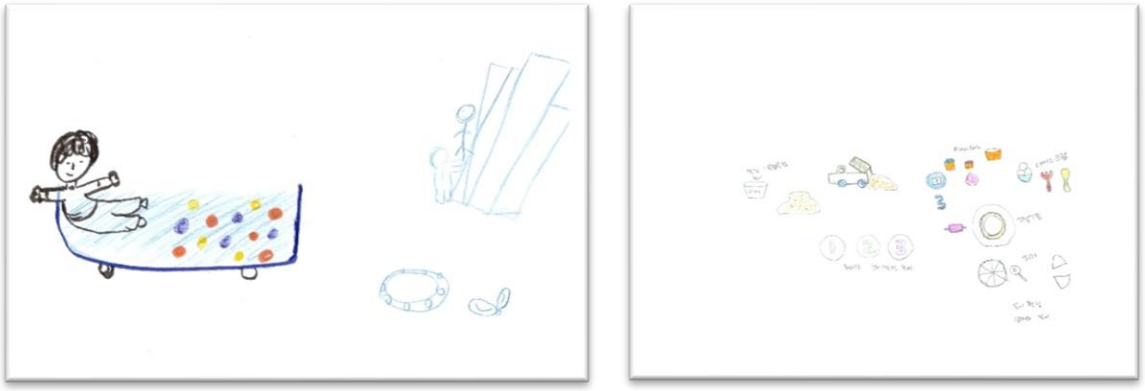

Figure 16. Participant 3's Art Journaling (Left).
Figure 17. Participant D's Art Journaling (Right).

Other entries: outside of Theme. 36% of drawings and short writings did not fit with the themes expressed in the majority of the drawing. They were more individualized and were not thematically grouped into as themes above. Participant 4 from the afternoon group used the activity to create confessions or letters to her child. Participant 5 sometimes wrote a weekly diary about his play with his son. Participant 2 drew a nature scene (Figure 18) and described her child was like a tree and that she would be the nature for him. Participant 8 depicted a nature scene (Figure 19) to evoke the park she walked by herself without her son. Since art journaling was an open studio process and participants could choose their involvement, some participants did not draw or write but were instead involved in the sharing process at the beginning of the sessions. In addition, some experimental group participants came late and thus made no entries for art journaling.

Figure 18. Participant 4's Art Journaling (Left).
Figure 19. Participant 8's Art Journaling (Right).

Focus group Interview. Session 6 included a 30 min. focus group interview for all experimental group participants. However, nine participants from both the morning and the afternoon group did most of the speaking. Four guided questions were used: (a) How would you describe your experience in the CAPT program? (b) How did you find the creative approaches to be? (c) How did you implement learning from the session? (d) How do you feel about yourself after the six-week-CAPT program? These questions were also typed in the workbook content for Session 6. Because time limits were enforced, all questions were introduced at once, then repeated again as a reminder as the group interview continued. Five themes arose for their CAPT experiences: (a) a child-focused view; (b) new findings and an observation opportunity; (c) new efforts for children; (d) a focus on emotion and importance of recognizing emotions; and (e) play and communication. Experimental group participants found the CAPT program to be a new self-finding opportunity – one that was healing and helpful.

Theme 1: A Child-focused view. Participant A, C, 5 and 7 mentioned their change in parenting: they became more child-focus and centered. Both morning and afternoon group experimental participants agreed upon this changed view on their children when interviewees brought up the topic. Participant 7 mentioned that the CAPT experience was a meaningful trigger to become child focused. Participant A said that she became more aware of respecting her child's

desires and preferences as reflected by the child's current level of functioning as she attended the program. She said, "I wish I would have participated in this program when he was a little younger. He is going to school next year. I really liked creative approaches and knowing the specific approaches. He really liked play dough with flour. When he became 7, I was more into raising his learning ability to a certain level because he would go to school next year. Then, CAPT gave me a new eye again—that I could look at him, who he was and what he liked. I started to focus on his level again. My effort was changed to the level of his eye, and it was effective. He seemed happier."

***Theme 2: New findings and an observation opportunity*.** All participants agreed that the CAPT experience was an opportunity for new findings, especially after Participant 5 said that the CAPT program was a new finding opportunity [what does this phrase mean?] for his child and for himself as a parent. He said that the observations he made after the program introduced new perspectives on his child. He said, "I started to observe my child and tried to understand him from his view. I put more effort into understanding him. Then I started to look at myself and realized my role as a parent and the importance! I only thought of my ways. There were many things I didn't think about it before."

***Theme 3: New efforts for children*.** All experimental participants agreed that the first change they saw in themselves as they participated in the six-week program was a willingness to make new efforts for their children. For instance, Participant B said that she started to focus on more attachments, play and emotions with her children. She tried to do more family events though it was a burden for her with three children. Participant A said that she gave up on her child at a certain point after he turned six-years-old, but CAPT was a turning point for her. She said, "I was on the verge. Now I feel I can do this again. I was so upset and tired from past years and now I know, I can see what I could do for him…and I know there are something I have to give up…I can do better things for him…for things I can do…"

Theme 4: A focus on emotion and the importance of recognizing emotions. The issue of emotion and its importance was brought up in both morning and afternoon group interviews. CAPT emphasized this issue throughout the program and all participants recognized the importance of emotion for their children's development. Participant 8 said, "I know about the importance of emotion for child development because I am a first-grade teacher. But I missed this until now. I tried to observe my child a lot as a participant in CAPT, then suddenly, I realized that my child grew up a lot. I didn't notice that! He is 7 now. Then, I thought about him and wondered if he was really doing things he wanted to do and liked… because he was spacing out sometimes.... I started wondering…what he would think at the moment, then I tried to act before he spaced out. I felt he was leading me. As I focused on his emotions, I was changed, and his play started expanding when I was focused on his emotions... when I become child focused…he was different. It was an astonishing change!"

Theme 5: Play and communication. Play expansion was one of the main interests according to the experimental participants' motivations for attending the CAPT program. 'Creative play' and 'Child-oriented play' as the result of CAPT experience were brought up in both morning and afternoon experimental group participants. Play was forgotten as an adult and a parent for these participants and they all said CAPT was a meaningful time to think about the 'meaning of play.' Participant C said**,** "Creative arts–based approaches were helpful to be adapted in the home environment and for me. It was good to sustain and create an attachment and a relationship with the child. Also, it was economical! I implemented mirroring a sound and name, play dough with flour, and other art play. I tried to be more creative in play. The more I played with C, the more I realized the necessity of play for secure attachment. CAPT gave me a new opportunity to think about play—and its directions—I became a more concrete thinker in the play direction. CAPT was a meaningful time, and I need more efforts to benefit my child."

Summary

There was a significantly different change in K-PSI-SF total scores favoring the experimental group, $t(17)=-2.72$, $p=.014$ after controlling for inequality of variances. There was also a significant difference in change scores for the Difficult Child subscale $t(16)=-2.68$, $p=.016$, again after controlling for inequality of variances. There was no corresponding statistically significant change found between groups in K-PET scores. For those who participated in the CAPT program, seven themes: (a) togetherness; (b) struggles and worries; (c) problematic behaviors; (d) family time; (e) change in children; (f) adaptation (in new school period), and (g) art and play were found in the art journaling process.

According to the experimental group's perceptions, their comfort, stress, and anxiety level with their children changed. The comfort level with their children either stayed the same or increased, meanwhile, the stress and anxiety levels either stayed the same or decreased, except for one female participant. All experimental group participants reported being satisfied with the program and determined that the program was beneficial in terms of the (a) information; (b) sharing of experiences, and (c) discussion, although they all experienced the program differently.

CHAPTER 5

Discussion

The CAPT program was examined by comparing a group of 15 parents in a control group who did not participate, with a group of 17 parents who participated weekly for a six-week period. The program took place in a private conference room in Yeoido-dong, Seoul, Korea. All parents were recruited through local centers, children's hospitals, parent support groups, and Internet-based parent support groups focused on Seoul-based parents with children with ASD. The researcher conducted all sessions with the help of parent of a child with ASD. Each session included both experiential components and art journaling. In general, the program employed various psychoeducational materials as well as creative arts–based approaches.

The researcher used the K-PSI-SF to measure the stress levels of parents and K-PET to measure efficacy – the parents' sense of their competence with their children. Pre-and post-session questionnaires captured general information about the experimental group participants pre- and self-evaluation on their behavioral and emotional changes and change in perception of their children after the session. Art journaling and focus group interviews were also included for qualitative data generation and analysis.

Impact on Stress

Statistical evidence gathered from K-PSI-SF scores supported the hypothesis that the CAPT program would have a *positive impact* on the high levels of stress for the experimental group compared to the control group. There was a significantly different change in K-PSI-SF scores favoring the experimental group, $t(17)=2.72$, $p=.014$ after controlling for inequality of variances between the two groups. No significant statistical evidence in K-PET scores was found, suggesting that the CAPT program had no statistical impact on competence.

Experience of the Program

Reports and qualitative data from over half of the experimental group's participants indicated that they experienced program positively, measured by self-reporting on reduced stress (47%), increased comfort level (64.7%), and decreased anxiety (58.8%). Parents reported relational changes with their children and their parenting styles as well. More than half of parents reported observing some specific changes in their children as they changed their view of their children, as well as their view of themselves as parents. This was a relational change. As parents learned and gained more information about ASD from psychoeducational materials they become more open to their children's tendencies and accepted their children as they were. This led the parents to apply what they learned to initiate play with their children at home.

The parents then observed minor changes in activities or daily routines with their children. Schertz et al. (2017) focused on parent–child relationships to teach parents to mediate toddlers' social communication at home so the toddlers could build individualized social interaction methods beginning with their parents and natural everyday environments. The participants in this study sensed that they were agents of change for their children, and the their experience of the CAPT program reflected this sense of becoming mediators for their children's change. Moreover, the CAPT program represented a social opportunity for parents to share and to think about their children and themselves. The participants agreed that the program's sharing aspect was positive.

Social connection. Parents reported they were often isolated due to their children's diagnoses. Some had joined local support groups for parents with children with ASD to acquire information and participate in social events. Experimental group participants especially liked and reported high satisfaction with the art journaling process. More than eighty percent (82.3%) of participants gave high satisfaction scores (either 4 or 5; the maximum rating possible was 5 and 3 indicated moderate satisfaction). The sharing part of the art journaling process made them feel

connected and provided insights about their children as well as their parenting skills. Some said it was particularly meaningful to have a space to communicate about their children's similarities and difficulties: They said this process of sharing through art journaling made them understand their children and their development issues better and accept them more. Clearly, this was an advantage of conducting a group-based training intervention (Ainbinder et al., 1998, Solomon, Pistrang, and Barker, 2001) for these highly stressed parents with children with ASD. These parents were able to share the hardships of raising their own children. They found similar difficulties and expressed their empathy toward one another within the social bonding they made within the CAPT group. This bonding assisted and connected these parents, creating a safe space that improved the psychological state of the parents whose children's experiences were similar to those of their own.

Participants 1, 2, 3, 5, 6, 7, and 8 from the morning group and participants B, C, E, F, and H from the afternoon group agreed that the CAPT program provided an unintended healing, giving them an opportunity to connect with others. Participant 6 said that she decided to participate in the CAPT program for her children, but it ended up being for her and gave her time to heal. Participant 5 described CAPT as a time of release as he shared his stories with other parents and developed a new outlook on himself as a parent. In general, all participants commented that they felt some connection with one another through the energy they felt from being together, sharing, and knowing others in the same situation.

New awareness. Experimental group participants admitted that over the course of the six-week CAPT program they experienced some changes in themselves as parents. They felt that they became more open to their children's differences and began to understand them better as they learned more about ASD. Many of them used the specific phrase "child focused" at least once during the art journaling, open discussions, and focus group interview. Experimental group participants mentioned that they first changed their efforts by approaching their situations from

their children's eyes rather than from their own eyes. The participants said that though the sessions were somewhat burdensome, art journaling helped them to think about everyday activities, behaviors and relationship with their children because they knew they had the weekly art journaling. They said that making art guided them to a new awareness of their children and themselves because the art journaling cycle—the repetition of (a) thinking, finding, and doing activities with children; (b) understanding their actions and responses as they attended to their children; and (c) attending and engaging in weekly sessions, including making art and sharing of experiences with their own children—enabled the parents to focus on (a) their children and themselves, (b) their past and present relationships, and (c) their role as a parents.

These parents said that they had never really considered their relationships with their children because they were so busy and focused on more immediate matters for their children, like therapy or other treatments. The parents confessed that they really never tried to search for strengths in their children before the CAPT program. But the program's first session addressed finding the children's strengths as the first step for every child, and after this they began to look for their children's strengths. They then discovered more positive things about their children and, consequently, came to appreciate their children more and wanted to change as parents.

Here, art inaugurated a process that guided these parents and led them to develop a new awareness. Studies on the group-based approaches in parent groups with music (Allgood, 2005) and art (Riley, 2001) reported a new kind of awareness various levels that enabled parents to relate to others and themselves as a parent in their own parenthood. Parents in the CAPT program's experimental group developed similar experience-based knowledge through art: a way of knowing with art (Allen, 1995). The reports from parents in the CAPT program resembled and recaptured the parents' report in Allgood's (2005) study: they reported the effectiveness of using art for learning and gaining new insights connected to the following changes in the parents: (a)

understanding the importance of their relationship with their children, (b) identifying their child's strength; and (3) understanding their changing role with their children.

Participant 5 mentioned how change affected his view of himself as a parent and affected his view on parents' roles. He said he became more child-focused and tried to make his child happy because he saw that as his job as a father. He said he started by observing his child to find out new things about his son. Participant C said that once she changed her view of her child's obsession with numbers and let him do what he liked to do, she thought he became less obsessive and more accepting of other things as well. Participant 7 said, "As I became more child focused and changed like that, she changed!" In general, the CAPT program offered an opportunity for participants to become newly aware and, ultimately, to change their attitudes toward their children.

Child-oriented play. Experimental group participants listed similar reasons for attending the CAPT program: mainly, they wanted to be more communicative and learn more approaches in playing with their children. The CAPT program focused on delivering materials as well as expanding the idea of play using creative art approaches. All experimental group participants felt that they had fundamental problems with understanding play, interaction, and intervention with their children. They felt they did not know how to communicate, understand, or respond to their children because they were minimally verbal or limited in speaking. Thus, all parents found the idea of using non-verbal communication in play and finding individualized communication method using non-verbal communication to be novel and promising since before they had relied exclusively on verbal communication. The creative process of the CAPT program introduced a groundbreaking approach for these parents. The CAPT carried out relationship-based components throughout the process and focused on delivering a message for building the spontaneous child-led flow in engagement. This was influenced by "floortime" (Wieder & Greenspan, 2003), and these parents admitted that they become more child-centered and non-

judgmental as a result of understanding the "meaning of play" and the fundamental nature of "play" as communication and connection. Parents had to change to follow their children. Participant G said that she tried not to impose her view on her child in play. Such changes reflected the goal of relationship-based "floortime" approach (Wideder & Greenspan, 2003).

In addition, the creative arts-based process of the CAPT program helped more than half of experimental group participants who had never used non-verbal communication to understand, communicate, and connect with their children. Those with younger children said experiential learning was especially helpful for understanding non-verbal communication. Participant 7 said she would try creative approaches with her daughter at home; it introduced to her a new way of thinking about her child's behavior and play.

Importance of emotion for child development. The materials, lectures, and experiential learning in the CAPT program emphasized the emotional component in child development throughout the play with children because affect and affective connections with people is one of the core conflicts with the children with ASD (Kanner, 1942). All participants from the morning group, as well as participants B, C, E, F, G, and I from the afternoon group mentioned that they knew about the importance of emotional development, but they did not know how to approach it. Moreover, they mentioned that their children's professional therapeutic interventions often neglected the importance of emotional development. These treatment regimens seemed most interesting in addressing visible core problems first. For instance, most language and speech therapists would focus on learning emotive words or correcting pronunciation rather than focusing on understanding and connecting the expression to the actual meaning of the different emotions.

The participants also said that the embedded creative art approaches in the CAPT program made them more a emotionally expressive group. In particular, the creative process of art journaling and the CAPT routine facilitated a bonding experience that enabled parents to

share their emotions and experiences about their lives with one another and with their children. Parents reported that they rarely found an opportunity to express their feelings and worries comfortably as a group. They also mentioned that the cultural and social stress of supporting their children was difficult to endure and sometimes felt burdensome due to their heavy responsibilities as parents.

However, they often ignored these emotions because they lacked a safe place to share and had been shaped by a cultural tendency to avoid emotional expression as adults and parents. Throughout the six-week program, these parents created their own grounds for emotional sharing, and found safe spaces for the free expression of emotions, which led them to think about their children's emotions as well. They said that it felt good to express such emotions and share their feelings truthfully. This was an empathic opportunity for these parents to communicate with each other (Leong, 2013). Parents said that because they learned the importance of emotional sharing by becoming attuned to each other's emotions in the CAPT program, they became more considerate of their children's emotions and other problems that their children had. Participant C said, "emotional response was essential for him, and I realized this now" Also, Participant 8 said that the importance of emotion was something she had long known, but she had previously missed out on everything her child had to offer.

Moreover, participants mentioned that through the group sharing of emotional expression they learned the importance of things like facial expression to relate to their children, especially non-verbal children. Indeed, research has found that children with ASD struggle to understand the relationship facial expressions and emotions (Grossman et al., 2000; Lindner & Rosen, 2006) and emotional responsivity (Scambler et al., 2007).

Access to individualized information. The CAPT program did not only focus on psychoeducational information and creative arts–based approaches. It also emphasized open discussions and tailored feedback for each participant, as parents posed questions about their

children and possible directions for using creative arts approaches for them. The program was hamstrung by the time-bound nature of open discussion and sharing. However, the individualized experience of the program coupled with the materials presented and facilitators' knowledge and experiences with autism was a strength of the program according to the participants. The co-facilitator and PF's shared life experiences and information were helpful for parents who were anticipating school admission for their children the following year. In addition, access to individualized information in discussion helped participants understand their children and improve their relationships with their children. This feature of the CAPT program also provided a point of contact for consultation for parents as they were getting trained. Furthermore, some participants found locally available parent associations and groups for their children through the help of the PF.

Yet the participants suggested that fewer group members during group training would have allowed them to receive more individualized time and support. For instance, Participant 3 from the morning group suggested that six would be ideal number of group members for training. These suggestions reflected the more intimate time for sharing and discussion of sensitive subjects about their children in Korean culture. Moreover, yearning for more individualized time suggested the need of individual support for their psychological help in addition to parent training program since these parents put much of their efforts on their children; thus, rarely receive necessary support for themselves in terms of self-care due to the lack of social infrastructure and practical support. Research by Lee (2017) on group art therapy on parental stress of mothers of children with disabilities in Korea found significant differences in stress, perceived stress and mood change between the experimental and control group after the 6-week group art therapy program. These findings also support the potential need for a more tailored and individualized approach for parents of children with disabilities in Korea, including private psychological services, group therapy, education and training.

The research finding supported the idea that parents could be the best agents of change (Schertz et al., 2017), as more than half of experimental group participants reported notable changes in their children as the program helped the parents to gain new insights about their children through play using creative arts approaches (Allwood, 2005). In other words, these parents become more child focused. Clearly, such changes in parents facilitated a new chapter for them, where they could serve as proto-therapists for their children (Matson et al., 2009). Thus, findings confirmed the promise of parent-mediated intervention in early-intervention treatments for children with ASD. The CAPT program induced a positive change for parents with their children with ASD.

Reflections

The CAPT program was "parents' time," and experimental group participants experienced the program differently according to their personalities. The CAPT program asked for full attendance, however, the program did not have full control over the parents' personal issues or attendance. For example, five participants did not attend the first day of the program, and only one participant contacted the researcher prior to the first day informing her that she had to drop the program due to a car accident. Also, while nine participants had perfect attendance, the others missed one or two sessions due to issues at home, such as family events and holiday planning.

Lastly, the CAPT program had a formal parent participant as a PF. This co-leadership arrangement had advantages: (a) the sharing of energy; (b) the sharing of roles and responsibilities; (c) a complementary effect; (d) the exchange of feedback; and (e) more specific information for certain areas of interests from participants. The PF was a good role model for the participants, as she was a mother who recently sent her child to first grade. She had experience raising a child with ASD and shared information with the participants about how to identify local resources and support.

In addition, she shared her stories about her child, and this was meaningful and provided hope for the participants. Her social skills and problem-solving skills in real-life situations in social systems, such as school admissions, encouraged the participants about the possibility of being more active in the situations arising around their children. The researcher and PF met twice after the program ended and followed up with her on her experience with the CAPT program. She found her participation to be positive and said that participating as a facilitator helped ease her anxiety during her son's first month of school. She said she managed to distance herself from this challenge and said it was a good change for her and her son. Also, she said sharing her stories and challenges with her son with other parents who had younger children than her son reminded her of her past: in this sense, the CAPT program was a reminder for her of how far she had come from that stage of her life with her son to her current stage.

Limitations

The CAPT program was limited by its short implementation period. The six-week training period was too short to compare it to other parent training programs in general. Also, it was inevitable that participants' life events would occur, which affected the attendance of a few participants. Furthermore, there were too many participants for the content to be absorbed and for personal questions to be discussed in three-hour sessions. A smaller number of participants – a maximum of six – would have been ideal for generating experiential learning and conducting more individualized discussions. Also, the program was limited by its sample size. Lastly, the research relied on self-reporting, thus it carried reporting biases and other sources of prevention for individual results.

Implications of Findings

The study suggests that the CAPT program was a positive experience for this highly stressed group of parents with children with ASD in Korea. The group-based implementation had benefits, though further employing of individualized help is recommended for the future. The

study also reflected the possibility of parent mediation for the population that provided a more natural setting for these children, and it is known that the naturalistic setting and strategies could induce greater generalization of skills and easier adaptions among the children with ASD (Schreibman, Kaneko, & Koegel, 1991; Schriemnan, 1998).

The evidence also supported the creative arts–based parent training programs for parents with children with ASD as a secondary parent training intervention for children with ASD as an early intervention. Employing creative arts effectively supported, promoted sharing while facilitating learning. Moreover, the creative process in the CAPT program provided parental guidance.

In addition, the CAPT program model could be promoted for other non-creative arts therapists (e.g. speech therapists) and health professionals (e.g. nurses) who work with children with ASD in Korea. For instance, those speech therapists could learn creative arts-based approaches from the CAPT program and adapt the arts-based creative approaches into their speech therapy session with children with ASD. The emphasis on the importance of emotions throughout the art-based process and sharing, as well as the expressions through creative approaches could to be enforced in non-creative arts therapy practices of professionals working with children with ASD in Korea. The constant artistic endeavors in such service provision often ignore the importance of the recognition of emotion and recognizing emotions and practicing emotional practice is a necessary element for optimization of the learning in children (Cochran-Smith & Lytle, 1999) in their development. [I don’t understand what this second sentence means or what you are trying to say in it so I cannot suggest any edits.]

The study promoted change in parents. As a result of the program implementation, parents in the experimental group reported that they became more child focused. The research suggested that parents might change in a number of ways: (a) their fundamental parenting style; (b) their view of the child and disability; as well as (c) their personality. Thus, individual

attention needs to be further explored to accomplish goals and effectiveness of the CAPT program.

Recommendations for Future Research

Future studies might use additional quantitative measures such as the Korean-Child Behavior Check List (K-CBCL) for parent report–based child characteristics to find out about changes in children as parents change, because these parents' revelations about their subsequent behavioral changes caused some changes in their children as well. In addition, framework and guidelines for evaluation on parent education and training can be adapted for post-program evaluation and a fidelity check could be done as well.

The program could also involve shorter individual sessions conducted over a longer period. Moreover, the program might limit the participation of couples, at least in the same session. Experimental participants suggested that future programs could employ media such as video clips of children for discussion. Involving such media can be adapted in future studies. Finally, research on PF and studies on co-leading have been suggested because the PF's role was so distinct for participants. This can potentially add a powerful aspect to the CAPT program.

Conclusion

Cultural ideology is embedded in "social habits and cultural forms" (Brookfield, 2005, p. 41) and such embedded social tendencies have deliberately influenced beliefs, personal choices, and systematical approach in micro and macro level of people with disability, in this case, children with ASD and families. The difference in ideology: the naturally created and "conceal[ed] the power relations" (Stige, 2002, p. 332) is what they live on everyday as the member of the community. In Korea, children with ASD and their parents struggle with cultural invisibility: they are less recognized than other members of society. Clearly, this minority group—the group of parents with children with ASD—needs a place to share their thoughts and

emotions and to acquire information they need to take care of children. The empathy created by artmaking and sharing within the closed group process in the CAPT program highlighted the social boding and sharing that took place. Moreover, parents' new insights about their children marked "a change in the parent's understanding of their relationship with their child…[, especially] on child's strength and changing role with their children" (Allgood, 2005, p. 98). Their new awareness and knowledge from engaging in creative approaches along with access to psychoeducational materials was powerful. Therefore, although the study had some limitations, the CAPT program shows promise for parents of children with ASD as a supplementary parent training. The qualitative and quantitative data on parental experience and reduced stress showed significant change and the potential for using creative arts therapy interventions in parent training for this population.

APPENDIX A

Informed Consent Form

29 Everett St., Cambridge, MA 02138

연구참여동의서

창의적 예술 중심의 부모기술 훈련 (CAPT) 프로그램 연구 프로젝트에의 참여에 초대되셨습니다. 이 연구의 목적은 "창의적 예술 접근을 사용하는 부모훈련 중심의 조기개입 프로그램이 자폐 스펙트럼(ASD) 아동의 부모-아동간의 소통적 관계 형성을 돕고, 이러한 부모의 육아 방법, 교육 그리고 표현예술치료 분야의 학제간 통합적 접근이 훈련 프로그램의 다각적인 측면을 강화시켜 ASD 아동의 조기발달에 효과적이면서도 비용 면에서 효율적인 방법으로 부모가 아동을 양육하도록 하는 기본적인 토대를 마련하는 것"입니다.

이 연구를 위해서는 매주 3 시간의 그룹 세션에 6 주 동안 참여해야 합니다. 그리고 (1)설문지와 (2) 한국판 부모 양육 스트레스 척도 검사(K-PSI) (3) 한국판 부모 양육 효능감 검사 를 6 주 프로그램 시작 전과 후에 각각 작성해야 합니다. 또한, 6 주동안의 미술만들기 시간 (art journaling) 과 표현예술치료기반 접근법의 직접적인 참여, 그리고 6 주의 CAPT 프로그램 종료 후, 10~15 분 길이의 간단한 Focus group Interview 참여와, 참여자의 6 주간의 경험에 대한 짧은 보고서 작성 참여가 포함되어 있습니다.

다음은 안내사항입니다. ,

- 자폐스펙트럼장애, 표현 예술 치료(미술치료, 무용-동작치료, 음악치료 등)에 관한 사전지식을 필요로 하지 않습니다.
- 아동이 ASD 진단 판정을 받은 상태이어야 합니다.
- 연구가 진행되는 6 주 동안 선택적으로 참여할 수도 있고, 언제든지 연구에의 참여를 중단할 수 있습니다.
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- 연구자는 이 연구의 결과물을 학문적인 목적으로 (즉, 논문, 강의, 학회 발표, 슈퍼비전 등) 사용할 수 있습니다.

만약 연구참여에 관한 어떠한 문제가 발생한다면, 연구자(박정은)에게 010-9012-2539 나 jungeup@gmail.com 로 연락하거나 레슬리 대학의 지도교수 Robyn Flaum Cruz, Ph. D, BC-DMT,에게 다음의 연락처로 연락하세요. Lesley University, Cambridge, MA, 412-401-1274, rcruz@lesley.edu.

이 연구에 대한 참여 동의는 나의 자유 의사에 의한 것이며, 나는 위에 쓰여진 내용을 모두 이해하였고, 본 동의서의 사본을 수령하였습니다.

_____	_____	_____	_____
참여자 서명	날짜	연구자 서명	날짜

레슬리 대학에는 연구 프로젝트에서 일어나거나 일어날 수 있는 문제 또는 불만을 보고할 수 있는 연구 피험자 관련 상임 위원회(Standing Committee for Human Subjects in Research)가 있습니다. 만약 어떠한 문제나 불안이 제기 된다면, 다음의 위원회 주소로 연락 바랍니다.

Committee at Lesley University, 29 Everett Street, Cambridge Massachusetts, 02138, irb@lesley.edu

29 Everett St., Cambridge, MA 02138

29 Everett St., Cambridge, MA 02138

Research Informed Consent

You are invited to participate in the research project titled "Creative Arts-based Parent Training (CAPT) program". The intent of this research study is to "use creative arts approach in parents' training program in early intervention for children with autism spectrum disorder (ASD) to build communicative relationships between parents and children with ASD. Moreover, the interdisciplinary approach with parenting, education and creative arts therapies may strengthen the multiple facets of a training program and help establish a cost-efficient way for parents with ASD to support their children in their early development.

Your participation will entail attending a weekly 3-hour group session for 6 weeks; filling out measures of (1) Questionnaire, (2) Korean Parenting Stress Index (K-PSI), and (3) Korean Parenting Efficacy Test (K-PET) in prior to the 6-week program; and Post-tests of (1) Questionnaire, (2) K-PSI, and (3) K-PET before as well after the 6-week program.

In addition, once you have finished the 6-week CAPT program, you will be asked to participate in a brief 10 to 15minute group interview session conducted by the researcher. You will be also asked to complete a brief written self-report, regarding your experiences with the CAPT program

In addition

- Former acknowledge about Autism Spectrum Disorder(ASD) or Creative Arts Therapies including but not limited to Art therapy, Dance Movement therapy and Music therapy is not necessary.
- You must have accepted the diagnosis of your child with ASD.
- You are free to choose not to participate in the research and to discontinue your participation in the research at any time.
- Identifying details will be kept confidential by the researcher. Data collected will be coded with a pseudonym, the participant's identity will never be revealed by the researcher, and only the researcher will have access to the data collected.
- Any and all of your questions will be answered at any time and you are free to consult with anyone (i.e., friend, family) about your decision to participate in the research and/or to discontinue your participation.
- Participation in this research poses minimal risk to the participants. The probability and magnitude of harm or discomfort anticipated in the research are no greater in and of themselves than those ordinarily encountered in daily life.
- The researcher may present the outcomes of this study for academic purposes (i.e., articles, teaching, conference presentations, supervision etc.)

If any problem in connection to the research arises, you can contact the researcher Jung-Eun Jeanne Park at +82-10-9012-2539 and by email at jungeup@gmail.com or Lesley University sponsoring faculty Robyn Flaum Cruz, Ph. D, BC-DMT, Lesley University, Cambridge, MA, 412-401-1274, rcruz@lesley.edu.

My agreement to participate has been given of my own free will and that I understand all of the stated above. In addition, I will receive a copy of this consent form.

_____ _____ _____ _____

Participant's signature Date Researcher's signature Date

There is a Standing Committee for Human Subjects in Research at Lesley University to which complaints or problems concerning any research project may, and should, be reported if they arise. Contact the Committee at Lesley University, 29 Everett Street, Cambridge Massachusetts, 02138, irb@lesley.edu

29 Everett St., Cambridge, MA 02138

미술작품 (Art) 사용 및 전시 동의서

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- ☐ 프로페셔널 컨퍼런스/학회에서의 복제 및 프레젠테이션 Reproduction and/or presentation at a professional conference.
- ☐ 연구자의 현재 박사연구 등에의 학문적 사용을 위한 모든 인용, 복제 및 프레젠테이션 Reproduction, presentation, and/or inclusion within academic assignments including but not limited to a doctoral work, currently being completed by the expressive arts therapy doctoral student.

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성명_____인_____날짜_____

나(박정은, ATR, LPC)는 아래와 같이 연구참여자의 미술작품 사용에 동의합니다.
나는 연구참여자의 미술작품의 원본 및 복제본을 안전하게 보관하는 것에 동의하며, 만일 보관 기간 중 분실 내지 파손이 발생할 경우 가능한 한 신속하게 이를 통보할 것입니다. 연구참여자가 동의를 취소하는 경우 언제라도 신속히 미술작품을 반환할 것을 약속합니다. 또한, 참여자의 비밀정보에 대한 보호를 약속합니다.

I, Jung-Eun Jeanne Park, agree to the following conditions in connection with the use of artwork:

I agree to keep your artwork safe, whether an original or reproduction, to the best of my ability and to notify you immediately of any loss or damage while your art is in my possession. I agree to return your artwork immediately if you decide to withdraw your consent at any time. I agree to safeguard your confidentiality.

박정은 인_____ 날짜 _____

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jungeup@gmail.com / jpark20@lesley.edu
tel/010-9012-2539

29 Everett St., Cambridge, MA 02138

29 Everett St., Cambridge, MA 02138

CONSENT TO USE AND/OR DISPLAY ART

CONSENT BETWEEN: Jung-Eun Jeanne Park and _____.
Expressive Arts Therapy Doctoral Student **Artist/Participant's Name**

I, _____, agree to allow Jung-Eun Jeanne Park

Artist/participant's name **Expressive Arts Therapy Doctoral Student**

to use and/or display and/or photograph my artwork, for the following purpose(s):

- ☐ Reproduction and/or inclusion within the research currently being completed by the expressive arts therapy doctoral student.
- ☐ Reproduction and/or presentation at a professional conference.
- ☐ Reproduction, presentation, and/or inclusion within academic assignments including but not limited to a doctoral work, currently being completed by the expressive arts therapy doctoral student.

It is my understanding that neither my name, nor any identifying information will be revealed in any presentation or display of my artwork, unless waived below.

☐ I DO ☐ I DO NOT wish to remain anonymous.

This consent to use or display my artwork may be revoked by me at any time. I also understand I'll receive a copy of this consent form for my personal records.

Signed _____Date _____

I, Jung-Eun Jeanne Park, agree to the following conditions in connection with the use of artwork:
Expressive Arts Therapy Doctoral Student

I agree to keep your artwork safe, whether an original or reproduction, to the best of my ability and to notify you immediately of any loss or damage while your art is in my possession. I agree to return your artwork immediately if you decide to withdraw your consent at any time. I agree to safeguard your confidentiality.

Signed _____ Date _____

Expressive Arts Therapy Doctoral Student

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APPENDEX B

Example of Translated parts of Workbook (Session 5)

Week 5: Art Materials and Sensory Regulation

- 60 minutes: Art journaling (my relationship with my child)
- 30 minutes: Understanding of art materials and strength/sensory regulation
- 60 minutes: Experiential – Exploring art materials
- 30 mins: Open discussion: understanding my child
- Free Home task – Thinking about the child's emotion, specific expression, and relationship

Part 1: Art journaling: My relationship with my child

ART DIRECTION: Please draw/make/write to describe your experiences and relationships with your children. You can pick a word(s) or sentence(s) to describe your artwork. You may also give a word to describe the nature of your relationship (e.g. difficult, stressful) with your children if you wish. If there is any, please give the title for your artwork.

Sharing of the artwork
This is an open time for your artwork (from Part 1) to be shared with others. If you're willing to, you may give a brief description of your artwork or simply show your artwork.

Part 2: Sensory development & sense of self

Importance of visual perception development

Visual perception skills are an ability of the brain that is related to the skills necessary to understand what is seen/perceived from the eyes. Sensory processing, visual attention, memory, etc., are some of the important building blocks for development of visual perception. In general, children with difficulties in visual coordination tend to have developmental delays because visual perception is related to not only everyday skills but also academic and play performances. Delay in language development is one of the possible results that is closely related to everyday skills. Children with difficulties in visual perception find it hard to recognize → memorize → structure the visual images necessary to understand the traits of forms, shapes, and characters from language. Simply using art-in-play, such as (1) categorizing blocks by color, shape, and/or size; (2) stringing beads in the order of color; (3) drawing dots and making pictures; (4) imitating block design patterns, etc., is a helpful way to stimulate and increase abilities of visual discrimination, visual spatial relationship, and visual memory. Research has addressed the importance of using art for visual perception development and proved that art is a possible way to improve the concentration and memory of children through visual details and visual components.

Children's development and art

Art helps children to naturally express behavioral and emotional problems. Using a variety of art materials and tools in artmaking/art play with children can help with regulation and control, so art promotes the children's development and adaptation. Art activities and processes can be nonverbal. Consequently, art can enable unconscious expression of thoughts, and the emotions of children can be explored. Art also gives confidence to children. Furthermore, art can be tailored accordingly to each child's developmental/emotional/psychological characteristics; thereby art facilitates individually customized experience through creativity. Art activities influence physical development, emotional cultivation and stability, cognitive awareness and improvement, social relationship building, brain development, self-expression enhancement, self-identity building, and self-identity development in developing children.

Children's development and art

In artmaking/art play with developing children, it is important to elicit children's emotions in pursued art activities/play because emotional experience and expressions with art not only help children to enjoy the activity itself but also enable relaxation through mutual acceptance through interactions. In such artmaking/art play, art materials are extremely important and should be carefully elected for use considering individual tendencies and characteristics because all children develop differently and differ in their sensory abilities. For example, paints, finger paints, wet clays, etc. may possibly invoke regression in some children. Thus, using fluid art material can be useful to children with a rigid propensity but may not be so for children with aggravated impulsive propensity and ambiguous ego boundary. Furthermore, for children with difficulties in sensory perception, a systematic approach to art materials is necessary in art activity/play. It is often found that some children (e.g., children with OCD) extremely hate getting their hands dirty with art materials such as wet clay.
Some children may show a very short attention span. In this case, beginning with a couple of short, simple art activities is important. Then, gradually reinforcing and growing from the basics is necessary. Choosing and repeating a project in consideration of preservative propensity is also recommended. In artmaking/art play, in the early stage, it is extremely important to stimulate children's senses of sight, touch, hearing, etc., and to help children to learn, regulate their senses, and accept art as a favorable activity. Having an interest in art is not only important in expanding artmaking/art play but also for the cognitive, linguistic, and social development of the child.

Clay is a typical art material that is often used in artmaking/art play. Clay enables three-dimensional representation; thus, it is useful in a child's development of space and reality perception. In fact, clay is highly recommended and is a basic art material for early intervention in developmental art therapy with children. Clay is a supportive material for a child's physical development, especially fine motor skills for hands.

Part 3: Experientials: Art materials and activity/play

Please select three art materials from the table in front of you, then make something. (Please write) On the table, there are art materials including

_____

_____.
Among them, I selected _____.

The processes of artmaking/art play, participation, and interaction with art are more important than the quality of the actual product from the artmaking/art play (i.e., artwork) for developing children. Pursuing and enjoying the experience with art is the most significant factor to elicit the internal emotions and expression of the children.
These are examples of simple artmaking/ art-play which can be adapted at home.

- Foam painting with shaving cream
- Play with paints on the washable paper (cookie paper)
- Making colored salt with pastels
- Paint blowing
- Stencil printing
- Grain painting
- Bead painting
- Playing with play-dough and cookie cutters

< Possible artmaking/art play with art materials that you chose from the table >
1. _____
2. _____
3. _____

< Exploration of ideas on art activity/art play using a variety of art materials >
1. _____
2. _____
3. _____

Part 4: Open Discussion: About my child (based on the home task from week 4)

Part 5: Home task: Think about the child's emotion, specific expression, and relationship

APPENDIX C

Detailed Schedule of Each session (translated)

Week 1: ***General information about ASD: Concerns & Anxiety***

- 20 min: Introduction to the CAPT program & confirming of the participation agreements for the study
- 60 min: Art journaling (my relationship with my child)
- 40 min: General understanding of ASD & finding the child's strengths
- 30 min: Experiential—understanding my worries and anxieties
- Free Home Task: child's play, routine, space, and anger
- 30 min: pre-study questionnaire, K-PSI, K-PET

Week 2: ***Understanding Non-verbal stages & Communication***

- 60 min: Art journaling (my relationship with my child)
- 30 min: Child development 1. Brain and language development
- 60 min: Experiential—understanding non-verbal communication
- 30 min: Open discussion: understanding my child
- Free Home task: behaviors and gestures

Week 3: ***Body & Gestures: Pointing & Mirroring***

- 60 min: art journaling (my relationship with my child)
- 30 min: Child Development 2: Joint Attention, Gesture & Body
- 60 min: Experiential – Pointing, Mirroring (Baum Circle)
- 30 min: Open discussion: understanding my child
- Free Home Task: Finding the child's favorite/hate sounds, method of communication

Week 4: ***Sound, Art & Communication***

- 60 min: art journaling (my relationship with my child)
- 30 min: Sound and development, Use of AAC
- 60 min: Experiential – Making sounds with instruments (e.g. drums, shakers) Sound-mirroring, Making songs (AMMT)
- 30 min: Open discussion: understanding my child
- Free Home Task: Finding the child's favorite/hate touch, observing sensory development of the child

Week 5: ***Art Materials and Sensory Regulation***

- 60 min: art journaling (my relationship with my child)
- 30 min: Sensory regulation and integration, Understanding art materials and strengths
- 60 min: Experiential – exploring the art materials
- 30 min: Open discussion: understanding my child
- Free Home Task: Thinking about child's emotion, specific expression, and relationship

Week 6: ***Emotions & Expressions: Building relationship***

- 60 min: Art journaling (my relationship with my child)
- 20 min: Emotions & expressions - sense of self & emotional development, relationships, and social-skills development
- 20 min: Experiential—expressing emotions
- 20 min: Open discussion: understanding my child
- 30 min: Post-study questionnaire, K-PSI, K-PET
- 30 min: Focus group interview

APPENDIX D

Questionnaires

Pre- Questionnaire

1. Please provide following information about you and your child. (*Must)

General Information about the child *

Name	
Date of Birth	
Sex	Male/Female
School Year	
Test/Assessment Information	

Information about Parents & Child Development

Name * Age * Occupation Academic History		
Address Phone * Email		
Family Members & Family Information Family Medical History		
Family Tree		
Birth & Developmental Milestone *(You may answer as you can recall your memory.) Pregnancy & Birth Parenting • Feeding & Habits • Bowel training • Weight at birth (kg) • Activity • Special Information about pregnancy & birth		
Characteristics & Development of Child		

Language
- Cooing
- First word

Waking
Sleeping
Personality
Peer relationship
Play
Special Issues

2. What are the reasons for your participants?
3. What are your personal goals from the program?
4. How familiar are you with creative-arts and/ or Creative-arts approach?

- Art/ Art therapy 1 – 2 – 3 – 4 – 5
- Dance/ Dance-Movement therapy 1 – 2 – 3 – 4 – 5
- Music/ Music therapy 1 – 2 – 3 – 4 – 5

5. Are you familiar with the idea of Parents' Skills Training program? Yes/No

   Yes/ No
6. If yes to question 5, have you ever participated any other parents' skills training program?

   Yes/ No

Post – Questionnaire

1 Not at all	**2** little	**3** Moderately	**4** Like	**5** Very like

1. How was your experience in general? Please circle and scale your experience 1 to 5. (1= didn't like at all, 2 = liked only some part, 3= moderately like in general, 4 = liked in general, 5 = very liked all the parts)

   1– 2 – 3 – 4 – 5

2. Were you satisfied with the parts of CAPT program? Please circle your satisfaction level by scale 1-5.
   - Art journals: 1 – 2 – 3 – 4 – 5
   - Experientials: 1 – 2 – 3 – 4 – 5
   - Open discussion: 1 – 2 – 3 – 4 – 5
   - Psychoeducation: 1 – 2 – 3 – 4 – 5
3. Did you fulfill your personal goals as you participated the CAPT program? Yes/ No
4. How was your attendance for the program? Please circle the sessions that you attended:

1	2	3	4	5	6

5. How did you feel about engaging arts including art experientials as part of educational training and art journals throughout the CAPT program (emotionally, physically, psychologically)?
6. What were the difficulties in attending and focusing in the program? Can you share your thoughts, ideas, and perceptions about the program? What were the strengths and weaknesses of the program as parents/participants?

7. What session(s) can you recall as the most beneficial one(s) after 6-week program?

1	2	3	4	5	6

8. Did you implement and/or try any arts based and driven understanding from training and learning from the sessions from the CAPT program and applied to play with your children at home? Yes/ No

   What were the session that you find most fun to modify and adapt into play with your children at home?

1	2	3	4	5	6

9. If 'no' to question 8, how did you find materials and assignments in the program? Would you describe your experiences and feelings about materials and assignments for the session(s)? Also, what were the difficulties to adapt new learnings from the training to actual setting with you children?
10. How did artistic engagement based on training program help establishing and building relationships with your children? Was the CAPT program helpful to build personalized communication with your children? If yes, what were the changes?
11. What were the changes did you find yourself after program training? How was your comfort level with you children changed? Please circle your comfort level with your children before and after the CAPT program. (1=not at all, 2= very little, 3=somewhat, 4=moderately, 5= very)
    - Before: 1– 2 – 3 – 4 – 5
    - After: 1– 2 – 3 – 4 – 5
12. Would you describe your stress level before and after the training program?

Stress

- Before: 1– 2 – 3 – 4 – 5
- After: 1– 2 – 3 – 4 – 5

13. Would you describe your anxiety level before and after the training program?

- Before: 1– 2 – 3 – 4 – 5
- After: 1– 2 – 3 – 4 – 5

14. Were there any specific changes that you noticed in your children since you started the Training program? Please circle ones that are applicable:

Attention and regulation:	self-regulation, shared attention, central coherence
Language:	initial vocalization, speech enhancement, modulation
Emotions:	responsivity, regulation, expression, exploration
Relations:	activeness, spontaneous play, affect changes
Communication:	active engagement (verbal, non-verbal), gestures, intentions
Socialization:	reciprocal activities, Sharing, mutuality, interaction, continuous initiation
Problem-solving:	maintain purposes, responding
Creativity:	imagination, expansion of thought, symbolic play, using representations, play them expansion, exploration of feelings
Logical thinking:	learning of materials, sequences
Everyday life-skills learning:	learning ability

15. Did you feel creative arts driven approach from the CAPT training program helped you understanding your children and establishing connection with your children? If yes, How?

16. If your experiences in program made any changes in you and your children, would you recommend this program to other parents? How would you describe this program to others who share the similar interests? Any specific sessions that you would recommend?

APPENDIX E

Example of art-based exercising parts for parents that are integrated in the written psychoeducational information in the session. (Session 1) (translated)

General symptoms and characteristics of ASD

Please circle the ones that are applicable for your child.

- Intelligence: average, above average, below average (70-80 borderline)
- High functioning vs. Low functioning
- Above average in specific intelligence (e.g. music, art, math, memory, etc.)
- Inability to perform Non-verbal ability
- Lack of relationship with peers
- Lack of interest and emotional exchange
- Lack of social/ emotional interaction
- Difficulty in interaction with others – including with caregivers and other significant figures in the child's environment in terms of social-emotional relationship building
- Delay in symbolic play
- Difficulty in social play
- Difficulty in voluntary participation / initiation
- Stubbornness/ Rigidness
- Stereotyped behavioral play
- Difficulty in self- help skills
- Difficulty in communication (Pronouncing: Yes/No, Difficulty in using words, Delay in development, Delay in language, Difficulty in learning)
- Echolalia
- Difficulty in social expression (Lack of understanding in basic communication skills)
- Stereotyped preservative behavior – habitual motor skills
- Obsession in parts from the object
- Sensitiveness in environment/ routine
- Aggressiveness
- Self -harm
- Temper
- Problematic behavior (e.g. damage to property)
- ADHD
- Depressive mood
- anxiety
- sensory problem (specific sound, touch, taste and smell)
- seizure
- Problem in digestion
- Screening food
- Sleeping problem
- Dysmyotonia

Others:

_____

General goals of therapeutic intervention

1. Increase the basic social, communication, and cognitive skills of the children
2. Stereotyped preservative behavior and others maladjustment

3. Support family

Type of available/ applicable therapies

- Family therapy
- Special Education
- Behavior modification
- Medication
- Developmental play therapy
- Language therapy
- Occupation therapy
- art therapy
- Music therapy → creative art therapy
- Dance-movement therapy

Comprehensive Integrated Treatment Program (Dr. Stanley Greenspan)

- Early intervention (in special education)
- Behavior modification (in class)
- Language therapy
- Occupation therapy (including sensory integration)
- Interactive Play Therapy/Floor time for building sense of self and social skills development
- Art therapy/ Music therapy

Recommend for early intervention program

- Interactive play therapy (3~5 times/ week): Developmental Psychotherapy
- Language therapy
- Occupation therapy (including sensory integration)
- Parent counseling/ parent education
- Integrated Class: 5 typical children with 1~2 children with ASD

Importance in early intervention

Early intervention means staring therapy as early as possible before school age (i.e., before 6 years old). There have been many successful case studies of intervention and research; thus, early intervention has been stressed in the academic and therapeutic field. Early intervention is important, and parental skills training for early intervention is one of the recent trends in research and treatments for children with ASD. For example, WHO and Autism Speaks have developed a protocol for a parental skills training program for early intervention. The CAPT program reflects the current trend in autism study and treatment. CAPT is a creative arts therapy-based parent training program.

< My child > Please draw your child, then list the kinds of therapies that your child is currently receiving.

APPENDIX F

Experiential (Session 2). (translated)

Session 2

PART 4: Experiential – Understanding the nonverbal language process and its difficulty (Understanding communication and the child's behavior)

This experiential session is designed to understand the child when he/she has communicational difficulty using words. Please pick one person from the group to be the "expressionist." The group may use any kind of method to choose the expressionist. Volunteers are welcomed.

1. Expressionist: Write 3 sentences that he/she is going to perform with his/her body to communicate with the group in a nonverbal environment. This will be discussed with the program instructor. One sentence has to be related to emotions/moods.
2. Expressionist: Perform 3 sentences nonverbally (no language; or making sounds is allowed)
   Group: Each person writes down the sentences that the expressionist is trying to communicate.
3. Expressionist: Perform 3 sentences nonverbally again, but with drawing (art) tools.
   Group: Each person writes down the sentences again or fixes the previous sentences.
4. Expressionist: Read aloud the original 3 sentences in front of the group.

Group discussion: Share the sentences written down by the group members and discuss the experience and feeling of nonverbal communication.

Expressionist
1.
2.
3.

Group
1a.
2a.
3a.
1b.
2b.
3b.

REFERENCES

Abidin, R. R. (2012). *Parenting stress index* (4th ed.). Lutz, FL: PAR.

Abidin, R. R., & Brunner, J. F. (1995). Development of a parenting alliance inventory. *Journal of Clinical Child Psychology, 24*(1), 31-40.

Ainbinder, J. G., Blanchard, L. W., Singer, G. H., Sullivan, M. E., Powers, L. K., Marquis, J.G., & Santelli, B. (1998). A qualitative study of parent to parent support for parents of children with special needs. *Journal of Pediatric Psychology, 23,* 99-109.

Allen, P. (1995). *Art is a way of knowing: A guide to self-knowledge and spiritual fulfillment through creativity*. Boston, MA: Shambhala.

Allgood, N. (2005). Parent's perceptions of family-based group music therapy for children with autism spectrum disorders. *Music Therapy Perspectives, 23*(2), 92-99.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.

American Psychological Association. (2018; May 5). Parenting Stress Index [Construct: Identify stressful aspects of parent-child interaction]. Retrieved from www.apa.org/pi/about/publications/caregivers/practice-settings/assessment/tools/parenting-stress.aspx

Argott, P. J., Townsend, D. B., Sturmey, P., & Poulson, C. L. (2008). Increasing the use of empathic statements in the presence of a non-verbal affective stimulus in adolescents with autism. *Research in Autism Spectrum Disorders, 2,* 341-352. doi:10.1016/j.rasd.2007.08.004

Autism Speaks. (2016). *State initiatives* [Information on autism-related laws by state]. Retrieved from https://www.autismspeaks.org/state-initiatives

Autism Speaks. (2017). *"Real world" autism interventions for home and school.* Retrieved from https://www.autismspeaks.org/blog/2017/03/28/%E2%80%98real-world%E2%80%99-autism-interventions-home-and-school

Bae, S. Y., Yoon, H. J., & Sul, A. Y. (2015). Korean adaptation of LENA Developmental Snapshot(K-SNAP). Seoul: Hak-ji-sa.

Barna, I., & Androne, M. (2012). The language of literary texts: Between artistic philosophy and cognitive-behavioral therapy. *Procedia-Social and Behavioral Sciences, 51*, 268-272.

Baron-Cohen, S. (1997). *Mindblindness: An essay on autism and theory of mind*. Cambridge, MA: M.I.T. Press.

Baron-Cohen, S.; Leslie, A.M.; & amp; Frith, U. (1985). "Does the autistic child have a 'theory of mind'?" Cognition. 21(1): 37-46. Doi:10.1016/0010-0277(85)90022-8

Berkovits, L., Eisenhower, A., & Blacher, J. (2017). Emotion regulation in young children with autism spectrum disorders. *Journal of Autism and Developmental Disorders*, *47*, 68-79. doi:10.1007/s10803-016-2922-2

Berrol, C. F. (2006). Neuroscience meets dance/movement therapy: Mirror neurons, the therapeutic process and empathy. *The Arts in Psychotherapy*, *33*(4), 302–315. doi:10.1016/j.aip.2006.04.001

Betts, D. (2003). Developing a projective drawing test: Experiences with the Face Stimulus Assessment (FSA). *Art Therapy: Journal of the American Art Therapy Association, 20*(2), 77-82.

Brookfield, S. D. (2005). The power of critical theory: Liberating adult learning and teaching. San Francisco, CA: Jossey-Bass.

Bryson, S. E., Zwaigenbaum, L., McDermott, C., Rombough, V., & Brian, J. (2008). The autism observation scale for infants: Scale development and reliability data. *Journal of Autism and Developmental Disorders, 38*(4), 731-738.

Bottema-Beutel, K., Yoder, P. J., Hochman, J. M., & Watson, L. R. (2014). The role of supported joint engagement and parent utterances in language and social communication development in children with autism spectrum disorder. *Journal of Autism and Developmental Disorders, 44*(9), 2162-2174. doi:10.1007/s10803-014-2092-z

Bowker, A., Angelo. N., Hicks, R., & Wells, K. (2011). Treatments for autism: Parental choices and perceptions of change. *Journal of Autism and Developmental Disorders, 41*, 1373-1382.

Brian, J., Bernardi, K., Dowds, E., Easterbrrok, R., MacWilliam, S., & Bryson, S. (2017). Feasibility of training early childhood educators in a community child care setting using a caregiver-mediated intervention for toddlers with autism spectrum disorder. *Journal of Education and Training Studies, 5*(5), 93-102.

Carpenter, R., Mastergeorge, A., Coggins, T. (1983). The acquisition of communicative intentions in infants eight to fifteen months of age. *Language and Speech, 26*(2), 101-116.

Carpenter, M., Pennington, B., & Rogers, S. (2002). Interrelations among social-cognitive skills in young children with autism. *Journal of Autism and Developmental Disorders, 32*(2), 91-106. doi:0162-3257/02/0400-0091/0

Charman, T., & Baird, G. (2008). Practitioner review: Diagnosis of autism spectrum disorder in 2- and 3-year-old children. *Journal of Child Psychology and Psychiatry, 43*(3). 289-305. doi:10.1111/1469-7610.00022

Charlop-Christy, M. H., & Carpenter, M. H. (2000). Modified incidental teaching sessions: A procedure for parents to increase spontaneous speech in their children with autism. *Journal of Positive Behavioral Intervention, 2*(2), 98-112. doi:10.1177/109830070000200203.

Chawarska, K., Klin, A., Paul, R., Macari, S., & Volkmar, F. (2009). A prospective study of toddlers with ASD: Short term diagnostic and cognitive outcomes. *Journal of Child Psychology and Psychiatry, 50*(10), 1235-1245. doi:10.1111/j.1469-7610.2009.02101.x

Cochran-Smith, M., & Lytle, S. (1999). Relationship of knowledge and practice: Teacher learning in communities. In A. Iran-Nijar, & P. D. Pearson (Eds.) *Review of research in education* (pp. 249-305). Washington, DC: American Educational Research Association.

Daou, N. (2014). Conducting behavioral research with children attending non-behavioral intervention programs for autism: The case of Lebanon. *Behavior Analysis in Practice, 7*(2), 78-90. doi:10.1007/s40617-014-0017-0.

Daou, N., & Hady, R. T. (2016). Teaching children with autism spectrum disorder to recognize and express emotion: A review of the literature. *International Electronic Journal of Elementary Education, 9*(2), 419-432.

Daou, N., Vener, S. M., & Poulson, C. L. (2014). Analysis of three components of affective behavior in children with autism. *Research in Autism Spectrum Disorders, 8*(5), 480-501. doi:10.1016/j.rasd.2014.01.005.

Dawson, G. (2008). Early behavioral intervention, brain plasticity, and the prevention of autistic spectrum disorder. *Development and Psychopathology, 20,* 775-803.

DeQuinzio, J. A., Townsend, D. B., Sturmey, P., & Poulson, C. L. (2007). Generalized imitation of facial models by children with autism. *Journal of Applied Behavior Analysis, 40,* 755-759. doi:10.1901/jaba.2007.755-759.

Derguy, C., Bailara, K. M., Michel, G., Roux, S., & Bouvard, M. (2016). The need for an ecological approach to parental stress in autism spectrum disorders: The combined role of individual and environmental factors. *Journal of Autism and Developmental Disorders, 46,* 1895-1905. doi:10.1007/s10803-016-2719-3.

Diggle, T., McConachie, H. R., & Randle, V. R. L. (2002). Parent-mediated early intervention for young children with autism spectrum disorder. *The Cochrane database of systematic reviews,* (Issue 2 Art. No.: CD003496). doi:10.1002/14651858.CD003496.

Durrani, H. (2014). Facilitating attachment in children with autism through art therapy: A case study. *Journal of Psychotherapy Integration, 24*(2), 99-108. doi:10.1037/a0036974.

Elsabbagh, M., & Johnson, M. H. (2007). Infancy and autism: Progress, prospects, and challenge. *Progress in Brain Research, 164,* 355-383.

Elsabbage, M., & Johnson, M. H. (2010). Getting answers from babies about autism. *Trends in Cognitive Science, 14,* 81-87.

Feng, G. (2016, May). Recent advances in genetics and neurobiology of autism. In M .D. Fallin & S. H. Mostofsky (Chairs), *IMFAR: International Meeting for Autism Research*. Symposium conducted at the meeting of the Annual Meeting of the International Society for Autism Research, Baltimore, MD.

Fraenkel, D. L. (1983). The relationship of empathy in movement to synchrony, echoing, and empathy in verbal interactions. *American Journal of Dance Therapy, 6,* 31–48.

Freeman, S. & Kasari, C. (2013). Parent-child interactions in autism: Characteristics of play. *Autism*, 17(2), 147-161.

Ganz, M. L. (2007). The lifetime distribution of the incremental societal costs of autism. *Archives of Pediatrics and Adolescent Medicine, 161*(4), 343-349.

Gena, A., Krantz, P. J., McClannahan, L. E., & Poulson, C. L. (1996). Training and generalization of affective behavior displayed by youth with autism. *Journal of Applied Behavior Analysis, 29*, 291-304.

Gibaud-Wallston, J., & Wandersman, L. P. (1978). *Development and utility of the parenting sense of competence scale*. London: Sage.

Gilkerson, J., & Richards, JA. (2008). *The LENA developmental snapshot (LTR-07-2)*. Boulder, CO: LENA Foundation.

Goin-Kochel, R. P., Mackintosh, V. H., & Myers, B. J. (2009). Parental reports on the efficacy of treatments and therapies for their children with autism spectrum disorders. *Research in Autism Spectrum Disorders*, 3, 528-537.

Goods, K. S., Ishijima, E., Chang. Y., & Kasari, C. (2013). Preschool based JASPER intervention in minimally verbal children with autism: Pilot RCT. *Journal of Autism and Developmental Disorders, 43*, 1050-1056. doi:10.1007/s10803-012-1644-3.

Gold, C., Wigram, T., & Elefant, C. (2006). Music therapy for autistic spectrum disorder. *Cochrane Database of Systematic Reviews, 2. 2. Art. No.: CD004381*. DOI:10.1002/14651858.CD004381.pub2

Grandin, T. (1995). *Thinking in pictures*. New York, NY: Vintage Books.

Green, J., Garg, S. (2018). Annual research review: The state of autism intervention science: progress, target psychological and biological mechanisms and prospects. *Journal of Child Psychology and Psychiatry, 59* (4), 424-443.

Green, A., Pituch, A., Itchon, J., Chol, A., O'Reilly, M., & SIgafoos, J. (2006). Internet survey of treatments used by parents of children with autism. *Research in Developmental Disabilities*, 27, 70-84.

Green, J., Wan, M. W., Guiraud, J., Holgrove, S., McNally, J., Slonims, V., . . . The BASIS Team. (2013). Intervention for infants as risk of developing autism: A case series. *Journal of Autism and Developmental Disorders, 43*(11), 2502-2514. doi:10.1007/s10803-013-1797-8.

Greenspan, S. & Wieder, S. (2003). Climbing the Symbolic Ladder in the *DIR® Model Through Floortime™/ Interactive Play. The National Autistic Society, 7, 425-435.*

Greenspan, S. & Wieder, S., (2005). Can children with autism master the core deficits and become empathetic, creative and reflective? *The Journal of Developmental and Learning Disorders*, 9, 1-29.

Greenspan, S. I. & Wieder, S. (2006*). Engaging autism: Using the floortime approach to help children relate, communicate, and think*. Cambridge, MA: Da Capo Lifelong Books.

Grossman, J. B., Klin, A., Carter, A. S., & Volkmar, F. R. (2000). Verbal bias in recognition of facial emotions in children with Asperger syndrome. *Journal of Child Psychology and Psychiatry, 41*(3), 369–379.

Hadley, S. (2013). Dominant narratives: Complicity and the need for vigilance in the creative arts therapies. *The Arts in Psychotherapy, 40*, 373-381

Han, Y. J. & Kim, Y. H. (2018). Establishment of a community-based integrated model for early

detection and early intervention of young children with disabilities. *Journal of the Korean Association for Persons with Autism, 18*(3), 29-59.

Harold, I, & Heidi, V. (2004). Child Development Review-Revised (CDR-R). Minneapolis, MN: Behavior Science Systems, Inc.

Hasting, R. P., Kovshoff, H., Ward, N. J., Espinosa, F. D., Brown, T., & Remington, B. (2005). Systems analysis of stress and positive perceptions in mothers and fathers of pre-school children with autism. *Journal of Autism and Developmental Disorders, 35*(5), 635-644.

Hasting, R. P., & Brown, T. (2002). Behavior problems of children with autism, parental self-efficacy, and mental health. *American Journal on Mental Retardation, 107*(3), 222–232.

Heerey, E., Keltner, D., & Capps, L. (2003). Making sense of self-conscious emotion: Linking theory of mind & emotion in children with autism. American Psychological Association, Inc. Doi: 10.1037/1528-3542.3.4.394

Henry, D. R. (1992). *Exceptional children: Exceptional art: Teaching art to special needs*. Worcester, MA: Davis.

Hildebrandt, M., Koch, S., & Fuchs, T. (2016). "We dance and find each other": Effects of dance/movement therapy on negative symptoms in autism spectrum disorder. *Behavioral Sciences, 24*, 1-17. doi:10.3390/bs6040024.

Hobson, R. P., Ouston, J., & Lee, A. (1988). What's in a face? The case of autism. *British Journal of Psychology, 79*, 441–453.

Hodge, D., Hoffman, C. D., & Sweeney, D. P. (2011). Increased psychopathology in parents of children with autism: Genetic liability or burden of caregiving? *Journal of Developmental and Physical Disabilities, 23*, 227-239.

Hoffman, C. D., Sweeney, D. P., Hodge, D., Lopez-Wagner, M. C., & Looney, L. (2009). Parenting stress and closeness: Mothers of typically developing children and mothers of children with autism. *Focus on Autism and Other Developmental Disabilities, 24*, 178-187. doi:10.1177/1088357609338715.

Ingersoll, B. (2008). The social role of imitation in autism: Implications for the treatment of imitation deficits. *Infants & Young Children, 21*(2), 107-119.

Ingersoll, B., Wainer, A. L., Berger, N. I., Pickard K. E., & Bonter, N. (2016). Comparison of a self-directed and therapist-assisted telehealth parent-mediated intervention for children with ASD: A pilot RCT. *Journal of Autism and Developmental Disorders, 46*(7), 2275-2284.

Jung, K. M., Lee, K. S., & Park, J. A. (2012). Korean Parenting Stress Index. Seou: Hak-ji-sa.

Kallal, A. (2014). *Autism and our community: Feedback from early intervention providers* (master's thesis). Retrieved from ProQuest. (10138097)

Kanner, L. (1943). Autistic disturbances of affective contact. *Nervous Child, 2,* 217-250.

Karp, E. A., Ibanez, L. V., Warren, Z., & Stone, W. L. (2017). Brief report: What drives parental concerns about their 18-month-olds at familial risk for autism spectrum disorder? *Journal of Autism and Developmental Disorders, 47,* 1535-1541. doi:10.1007/s10803-017-3060-1

Kasari Lab. (2016a). *JASPER* [Treatment presentation]. Retrieved from http://www.kasarilab.org/treatments/jasper/

Kasari Lab. (2016b). *Treatment* [Treatment approaches]. Retrieved from http://www.kasarilab.org/treatments/treatment-programs/

Kasari, C. (2002). Assessing change in early intervention programs for children with autism. *Journal of Autism and Developmental Disorders, 32,* 447-458.

Kasari, C., Gulsrud, A., Wong, C., Kwon, S., & Locke, J. (2010). Randomized controlled caregiver mediated joint engagement intervention for toddlers with autism. *Journal of Autism and Developmental Disorder, 40,* 1045-1056. doi:10.1007/s10803-010-0955-5.

Keenan, B. M., Newman, L. K., Gray, K. M., & Rinehart, N. J. (2016). Parents of children with ASD experience more psychological distress, parenting stress, and attachment-related anxiety. *Journal of Autism and Developmental Disorders, 46,* 2979–2991. doi:10.1007/s10803-016-2836-z.

Kim, J., Wigram, T., & Gold, C. (2009). Emotional, motivational and interpersonal responsiveness of children with autism in improvisational music therapy. *Autism, 13*, 389-409. doi:10.1177/1362361309105660.

Kim, J.M., & Shin, H. S. (2007). Korean Child Development Review-Revised (K-CDR-R). Seoul: Hak-ji-sa.

Kim, T. & Park. R. (1996). The childhood autism rating scale (CARS): For diagnostic screening and classification of autism. Seoul, Korea: Special Education Publisher.

Klin, A., Jones, W., Schultz, R., Volkmar, F., & Cohen, D. (2002). Visual fixation patterns during viewing of naturalistic social situations as predictors of social competence in individuals with autism. *Archives of General Psychiatry, 59,* 809–816.

Koch, S. C., Mehl, L., Sobanski, E., Sieber, & Fuchs, T. (2014). Fixing the mirrors: A feasibility study of the effects of dance movement therapy on young adults with autism spectrum disorder. *Autism, 19*(3), 338-350. doi:10.1177/1362361314522353.

Koo, B. K., & Chung, K. M. (2018). Effectiveness of an early intensive behavior intervention for infants with ASD: A preliminary study. *Journal of the Korean Association for Persons with Autism, 18* (2), 1-30.

Krakovich, T. M., McGrew, J. H., Yu, Y., & Ruble, L. A. (2016). Stress in parents of children with autism spectrum disorder: An exploration of demands and resources. *Journal of Autism and Developmental Disorders, 46,* 2042–2053. doi:10.1007/s 10803-016-2728-2.

Krantz, P. J. (2000). Commentary: Interventions to facilitate socialization. *Journal of Autism and Developmental Disorders, 30*(5), 411-413.

Kuo, N., & Plavnick, J. B. (2015). Using an antecedent art intervention to improve the behavior of a child with autism. *Art Therapy: Journal of the American Art Therapy Association, 32*(2), 54-59.

Kwak, K.J., Oh, S. W., & Kim, C. T. (2011). Korean Wechsler intelligence scale for children (K -WSIC-4th Ed.). Seoul: Hak-ji-sa.

Lafasakis, M., & Sturmey, P. (2007). Training parent implementation of discrete-trial teaching: Effects on generalization of parent teaching and child correct responding. *Journal of Applied Behavior Analysis, 40,* 685–689.

Landa, R. J., Gross, A. L., Stuart, E. A., & Bauman, M. (2012). Latent class analysis of early developmental trajectory in baby siblings of children with autism. *Journal of Child Psychology and Psychiatry, 53*(9), 986-996.

Leaf, R., Taubman, M., McEachin, J., Leaf, J., & Tsuji, K. (2011). A program description of a community-based intensive behavioral intervention program for individuals with autism spectrum disorders. Education and Treatment of Children, 34, 259-285.

Lebarton, E. S., & Iverson, J. M. (2016). Gesture development in toddlers with an older sibling with autism. *International Journal of Language & Communication Disorders, 51*(1), 18-30.

Lee, G. K. (2009). Parents of children with high functioning autism: How well do they cope and adjust? *Journal of Developmental and Physical Disabilities, 21*, 93-114.

Lee, J. H. (2017). Group art therapy and self-care for mothers of children with disabilities (Doctoral dissertation), Expressive Therapies Division, Lesley Univeristy, Cambridge, MA, USA. Retrieved from https://digitalcommons.lesley.edu/expressive_dissertations/49

Leong, D. (2013). Art in a hidden world: Creative process and invisible anomaly. *The International Journal of the Arts in Society: Annual Review, 7*, 29–-9.

Lesner, W., & Hillman, D. (1983). A developmental schema of creativity. *Journal of Creative Behavior*, *17*(2), 103–114.

Lindner, J. L., & Rosen, L. A. (2006). Decoding of emotion through facial expression, prosody and verbal content in children and adolescents with Asperger's syndrome. *Journal of Autism and Developmental Disorders 36*(6), 769-777.

Lloyd-Fox, S., Blasi, A., Elwell, C., Charman, T., Murphy, D., & Johnson, M. (2013). Reduced neural sensitivity to social stimuli in infants at risk for autism. *Proceedings of the Royal Society B, 280 (*1758), 20123026. doi:10.1098/rspb.2012.3026.

Lord, C., Rutter, M., DiLavore, P. C., Risi, S., Gotham, K., & Bishop, S. (2012). *Autism diagnostic observation schedule, Second edition (ADOS-2)*. Torrance, CA: Western Psychological Services.

Lowry, L. (2018, May 11). Play & Autism: More evidence for following the child's lead [Children's play]. Retrieved from *https://www.hanen.org/MyHanen/Resource-Centre/Articles/Research/Play---Autism--More-evidence-for-following-the-chi.aspx*

Lu, L., Pertersen, F., Lacroix, L, & Rousseau, C. (2010). Stimulating creative play in children with autism through sandplay. *The Arts in Psychotherapy, 37*(1), 56-64.

Mahoney, G., & Perales, F. (2003). Using relationship-focused intervention to enhance the social-emotional functioning of young children with autism spectrum disorders. *Topics in Early Childhood Special Education*, 23, 77-89.

Martin, M. (2014). Moving on the spectrum: Dance/movement therapy as a potential early intervention tool for children with autism spectrum disorder. *The Arts in Psychotherapy, 41*, 545-553. doi:10.1016/j/aip.2014.10.003.

Martin, N. (2008). Assessing portrait drawings created by children and adolescents with autism spectrum disorder. *Art Therapy: Journal of the American Art Therapy Association, 25*(1), 15-23.

Martin, N. (2009a). Art therapy and autism: Overview and recommendations. *Art Therapy: Journal of the American Art Therapy Association, 26*(4), 187-190.

Martin, N. (2009b). *Art as an early intervention tool for children with autism*. London, England: Jessica Kingsley.

Matson, J., Benavidez, D., Comptom, L., Paclawskyj, T., & Baglio, C. (1996). Behavioral treatment of autistic persons: A review of research from 1980 to the present. *Research in Developmental Disabilities*, 17(6), 433-465.

Matson, M., Mahan, S., & Matson, J. (2009). Parent training: A review of methods for children with autism spectrum disorders. *Research in Autism Spectrum Disorders, 3,* 868-875.

Mazza, M., Mariano, M., Peretto, S., Masedu, F., Pino, M. C., & Valenti, M. (2017). The role of theory of mind on social information processing in children with autism spectrum disorders: A mediation analysis. *Journal of Autism and Developmental Disorders, 47,* 1369-1379. doi:10.1007/s10803-017-3069-5.

McDuffie, A., Turner, L., Stone, W., Yoder, P., Wolery, M., & Ulman, T. (2007). Developmental correlates of different type of motor imitation in young children with autism spectrum disorder. *Journal of Autism and Developmental Disorders, 37*, 401-412. doi:10.1007/s10803-006-0175-1.

McDuffie, A., Yoder, P., & Stone, W. (2005). Prelinguistic predictors of vocabulary in young children with autism spectrum disorders. *Journal of Speech, Language, and Hearing Research, 48*, 1080-1097. doi:1092-4388/05/4805-1080.

McGarry, L. M., & Russo, F. A. (2011). Mirroring in dance/movement therapy: Potential mechanisms behind empathy enhancement. *The Arts in Psychotherapy, 38*, 178-184. doi: 10.1016/j.aip.2011.04.005.

Montes, G., & Halterman, J. S. (2007). Psychological functioning and coping among mothers of children with autism: A population-based study. *Pediatrics, 119*, 1040-1046.

Mudford, O., Martin, N., Eikeseth, N., & Bibby, P. (2001). Parent-Managed Behavioral treatment for preschool children with autism: some characteristics of UK programs. *Research in Developmental Disabilities*, 22, 173-82.

Murphy, M., Bolton, P. F., Pickles, A., Fombonne, E., Piven, J., & Rutter, M. (2000). Personality traits of the relatives of autistic probands. *Psychological Medicine, 30*, 1411-1424.

Murray, L., Fiori-Cowley, A., Hooper, R., & Cooper, P. (1996). The impact of postnatal depression and associated adversity on early mother-infant interactions and later infant outcome. *Child Development, 67*(5), 2512-2526.

NICHD Early Child Care Research Network. (2000). The relation of child care to cognitive and language development. *Child Development, 71*(4), 960-980.

Overy, K. (2008). Classroom rhythm games for literacy support. In J. Westcombe, T. Miles & D. Ditchfield (Eds.), *Music and dyslexia: A positive approach* (pp. 26-44). Chichester, England: Wiley.

Ozonoff, S., Losif, A., Baguio, F., Cook, I., Hill, M., Hutman, T., . . .Young, G. (2010). A prospective study of the emergence of early behavioral signs of autism. *Journal of American Academy of Child & Adolescent Psychiatry,49*(3), 256-266.el-2.

Ozonoff, S., Young, G. S., Goldring, S., Greiss-Hess, L., Herrera, A. M., Steele, J., . . . Rogers, S.G.(2008). Gross motor development, movement abnormalities, and early identification of autism. *Journal of Autism and Developmental Disorders,38*(4), 644-656.

Ozonoff, S., Young, G., Belding, A., Hill, M., Hill, A., Hutman, T., . . . Losif, A. (2014). The broader autism phenotype in infancy: When does it emerge? *Journal of American Academy of Child & Adolescent Psychiatry, 53*(4), 398-407. e2. doi:10.1016/j.jaac.2013.12.020.

Park, J. E. (2018). Creative Arts - Based Parent Training (CAPT) program for Parents with Children with Autism Spectrum Disorder (ASD). Unpublished doctoral pilot study, Expressive Therapies Division, Lesley University, Cambridge, MA, USA.

Randall, P., & Parker, J. (1999). *Supporting the families of children with autism*. New York, NY: John Wiley & Sons.

Rao, P. A., & Beidel, D. C. (2009). The impact of children with high-functioning autism on parental stress, sibling adjustment, and family functioning. *Behavior Modification, 33*, 437-451.

Reaven, J., & Hepburn, S. (2006). The parent's role in the treatment of anxiety symptoms in children with autism spectrum disorders. *Mental Health Aspects of Developmental Disabilities, 9,* 73-80.

Reaven, J., Washington, L., Moody, E. J., Stern, J. A., Hepburn, S. L., & Blackley-Smith, A. (2015). Examining the relationship between parental anxiety and treatment response in children and adolescents with autism spectrum disorder and anxiety. *Journal of Autism and Developmental Disorders, 45,* 2464-2473. doi:10.1007/s10803-105-2410-0.

Reynolds, P. (2011). ABA A Brief Introduction to Teaching Children with Autism. Lulu.com˜.

Richard, D. A., More, W., & Joy, S. P. (2015). Recognizing emotions: Testing an intervention for children with autism spectrum disorders. *Art Therapy: Journal of the American Art Therapy Association, 32*(1), 13-19.

Riley, S. (2001). *Group pross made visible: Group art therapy*. Philadelphia: PA, Brunner-Routledge.

Rogers, S. J., Vismara, L., Wagner, A. L., McCormick, C., Young, G., & Ozonoff, S. (2014). Autism treatment in the first year of life: A pilot study of infant start, a parent-implemented intervention for symptomatic infants. *Journal of Autism and Developmental Disorders,44,* 2981-2995. doi:10.1007/s10803-014-2202-y.

Rogers, S. J., Estes, A., Lord, C., Vismara, L., Winter, J., Fitzpatrick, A., . . .Dawson, F. (2012b). Effects of a brief Early Start Denver model (ESDM)-based parent intervention on toddlers at risk for autism spectrum disorders: A randomized controlled trial. *Journal of the American Academy of Child and Adolescent Psychiatry, 51*(10), 1052-1065. doi:10.1016/j.jaac.2012.08.003

Ruiz-Robledillo, N., & Moya-Albiol, L. (2015). Lower electrodermal activity to acute stress in caregivers of people with autism spectrum disorder: An adaptive habituation to stress. *Journal of Autism and Developmental Disorders, 45*, 576-588. doi:10.1007/s10803-103-1996-3.

Sacrey, L. A. R., Bryson, S. E., & Zwaigenbaum, L. (2013). Prospective examination of visual attention during play in infants at high-risk for autism spectrum disorder: A longitudinal study from 6 to 36 months of age. *Behavioural Brain Research, 256*, 441-450.

Sandbank, M., Woynaroski, T., Watson, L., Gardner, E., Kaysili, B, & Yoder, P. (2017). Predicting intentional communication in preverbal preschoolers with autism spectrum disorder. *Journal of Autism and Developmental Disorders, 47*, 1581-1594. doi:10.1007/s10803-017-3052-1.

Scambler, D. J., Hepburn, S., Rutherford, M. D., Wehner, E. A., & Roger, S. J. (2007). Emotional responsibility in children with autism, children with other developmental disabilities, and children with typical development. *Journal of Autism and Developmental Disorders, 37*(3), 553-563.

Schertz, H. H., Horn, K., Lee, M., & Mitchell, S. (2017) Supporting parents to help toddlers with autism risk make social connections. *Young Exceptional Children, 20*(1), 16-29.

Schreibman, L. (1988). *Autism*. Thousand Oaks: Sage.

Schreibman, L., Kaneko, W. M., & Koegel, R. L. (1991). Positive affect of parents of autistic children: A comparison across two teaching techniques. *Behavior Therapy, 22*, 479-490.

Schreibman, L., Dawson, G., Stahmer, A. C., Landa, R., Rogers, S. J., Mcgee, G. G., Halladay, A. et al. (2015). Naturalistic Developmental Behavioral Interventions:

Empirically Validated Treatments for Autism Spectrum Disorder. *Journal of Autism and Developmental Disorders*, 45(8), 2411-2428.

Schopler, E., Reichler, R. J., & Renner, B. R. (1986). *The childhood autism rating scale (CARS): For diagnostic screening and classification of autism*. New York: Irvington.

Schweizer, C., Knorth, E., & Spreen, M. (2014). Art therapy with children with autism spectrum disorder: A review of clinical case descriptions on "what works." *The Arts in Psychotherapy, 41,* 577-593. doi:10.1016/j/aip.2014.10.009

Shapiro, E. S. (2010). *Academic skills problem: Direct assessment and intervention* (4th ed.). New York, NY: Guilford.

Shire, S. Y., Chang, Y., Shih, W., Bracaglia, S., Kodjoe, M., & Kasari, C. (2017). Hybrid implementation model of community-partnered early intervention for toddlers with autism: A randomized trial. *The Journal of Child Psychology and Psychiatry*, *58*(5), 612–622.

Silverman, S. (2015). *Neurotribes: The legacy of autism and the future of neurodiversity*. New York: Avery.

Smith, I., & Bryson, S. (1998). Gesture imitation in autism I: Nonsymbolic postures and sequences. *Cognitive Neuropsychology, 15*, (6/7/8), 747-770.

Solomon, R., Necheles, J., Ferch, C., & Bruckman, D. (2007). Pilot study of parent training program for young children with autism. The National Autistic Society.

Solomon, M., Pistrang, N., & Barker, C. (2001). The benefits of mutual support groups for parents of children with disabilities. *American Journal of Community Psychology, 29*, 113-132.

Stahmer A. C., & Aarons, G. A. (2009). Attitudes towards adoption of evidence-based practices:

A comparison of autism early intervention providers and children's mental health providers. *Psychological Services, 6* (3), 223-234. doi: 10.1037/a0010738.

Steiner, A. M., Gengoux, G. W. Klin, A., Chawarska, K. (2013). Pivotal response treatment for infants at-risk for autism spectrum disorders: A pilot study. *Journal of Autism and Developmental Disorders, 43*(1), 91-102. doi:10.1007/s10803-012-1542-8.

Stige, B. (2002). Culture-centered music therapy. Gilsum, NH: Barcelona Publishers.

Srinivasan, S. M., & Bhat, A. (2013). A review of "music and movement" therapies for children with autism: Embodied interventions for multisystem development. *Frontiers in Integrative Neuroscience, 7*, 1-15.

Tamis-Lemonda, C. S., Bornstein, M. H., & Baumwell, L. (2001). Maternal responsiveness and children's achievement of language milestones. *Child Development, 72*(3), 748-767. doi:10.1111/1467-8624.00313.

Thayer, F. C. (2016). Evaluation of a Developmental Individualized Relationship (DIR®) and creative arts therapies program for children with autism (Doctoral dissertation), Expressive Therapies Division, Lesley Univeristy, Cambridge, MA, USA. Retrieved from ProQuest. (10036375)

Tomasello, M., & Farrar, M. (1986). Joint attention and early language. *Child Development, 47*, 1494-1463.

Tonge, B., Brereton, A.., Kiomall, M., Mackinnon, A., King, N., Rinehart, N. (2006). Effects on parental mental health of an education and skills training program for parents of young children with autism: a randomized controlled trial. *Journal of the American Academy of Child and Adolescent Psychiatry, 45* (6), 561-569.

Tortora, S. (2006). *The dancing dialogue: Using the communicative power of movement with young children*. Baltimore, MD: Brookes.

Vanvuchelen, M., Roeyers, H., & De Weerdt, W. (2011). Do imitation problems reflect a core characteristic in autism? Evidence from a literature review. *Research in Autism Spectrum Disorders, 5*(1), 89-95.

Volkmar, F., Chawarska, K., & Klin, A. (2005). Autism in infancy and early childhood. *Annual Review of Psychology, 56*, 315-336. doi: 10.1146/annurev.psych.56.091103.070159.

Vygotsky, L. (1986). *Thought and Language*. Cambridge, MA: MIT Press.

Wallace, K. S., & Rogers, S. J. (2010). Intervening in infancy: Implications for autism spectrum disorders. *The Journal of Child Psychology and Psychiatry, 51*, 1300-1321.

Wan, M. W., Green, J., Elsabbagh, M., Johnson, M., Charman, T., & Plummer, F. (2013). Quality of interaction between at-risk infants and caregiver at 12-15 months is associated with 3-year autism outcome. *Journal of Child Psychology and Psychiatry, 54*(7), 763-771.

Wan, C. Y., Bazen, L., Baars, R., Libenspn, A., Zipes, L., Zuk, J., … Schlaug, G. (2011). Auditory-motor mapping training as an intervention to facilitate speech output in non-verbal children with autism: A proof of concept study. *PLoS ONE, 6*, 1-7 doi:10.1371/journal.pone.0025505.

Wechsler, D. (2003). The Wechsler intelligence scale for children (WISC, 4th Ed.). London: Pearson.

Wetherby, A. M., Woods, J., Allen, L., Cleary, J., Dickinson, H., & Lord, C. (2004). Early indicators of autism spectrum disorders in the second year of life. *Journal of Autism and Developmental Disorders, 34*, 473-493.

Wong, C., & Kasari, C. (2012). Play and joint attention of children with autism in the preschool special education classroom. *Journal of Autism and Developmental Disorders*, 1-10. doi:10.1007/s10803-012-1467-2.

World Health Organization. (2016). *Autism spectrum disorders* [Fact sheet]. Retrieved from http://www.who.int/mediacentre/factsheets/autism-spectrum-disorders/en/

Woynaroski, T., Watson, L., Gardner, E., Newsom., C., Keceli-Kaysili, B., & Yoder, P. (2016). Early predictors of growth in diversity of key consonants used in communication in initially preverbal children with autism spectrum disorder. *Journal of Autism and Developmental Disorders, 46,* 1013-1024. doi:10.1007/s10803-015-2647-7.

Yirmiya, N., & Shaked, M. (2005). Psychiatric disorders in parents of children with autism: A meta-analysis. *Journal of Child Psychology and Psychiatry, 46,* 69-83.

Young, A., Ruble, L. A. & McGrew, J. H. (2009). Public vs. private insurance: Cost, use, accessibility, and outcomes of services for children with autism spectrum disorder. *Research in Autism Spectrum Disorders, 3*(4), 1023-1044. doi:10.1016/j.rasd.2009.06.006.

Yoder, P., Watson, L., & Lambert, W. (2015). Value- added predictors of expressive and receptive language growth in initially nonverbal preschoolers with autism spectrum disorders. *Journal of Autism and Developmental Disorders, 45,* 1254-1270. doi:`10.1007/s10803-014-2286-4.

Yoo, H. J., & Kwak, Y. S. (2007). Autism Diagnostic Observation Schedule. Seoul: Hak-ji-sa.

Zaghlawan, H. Y., & Ostrosky, M. M. (2016). A parent-implemented intervention to improve imitation skills by children with autism: A pilot study. *Early Childhood Education Journal, 44,* 671-680.