The International Young Researchers' Conference
DOI: 10.34614/iyrc2021f47

S-BRATA and Japan: A Novel Art Therapy Framework for the Treatment of ASD and Comorbid SID

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Abstract

Children with autism spectrum disorder (ASD) commonly experience low levels of attachment to their parents. This, in turn, causes caregivers to question the efficacy of their own parental skills and increases their rates of stress. In Japan, as in much of the world, the frequency of ASD diagnoses in children is increasing. Interventions like the Program for the Education and Enrichment of Relational Skills (PEERS) have recently been adapted to a Japanese cultural context, but few exist for art therapists. However, Durrani's Sensory-Based Relational Art Therapy Approach is a novel framework that addresses sensory-integration disorder (SID) and impaired attachment directly and thus is a possible intervention for children with ASD in Japan who exhibit impaired attachment to their caregivers. In this paper, the author first discusses in broad terms ASD, art therapy, and their overlap. The author next investigates the status of parents of children with ASD in Japan before examining Durrani's S-BRATA Framework and its seven themes. Finally, the author proposes the adoption of the S-BRATA Framework with cultural adaptations by Japanese art therapists.

Introduction

Over time, the prevalence of individuals diagnosed with Autism Spectrum Disorder (ASD) has increased (WHO, 2021), and this increase is being particularly felt in Japan (Sasayama et al., 2021). Children and adults with ASD are all unique in their exhibition of symptoms and the severity of those symptoms. Thus, ASD is a spectrum disorder. In order to address the entirety of the spectrum, interventions aimed to reduce symptoms and improve day-to-day functioning must be tailored to the client. As an example, art therapy is a form of therapy in which an art therapist and a client develop a relationship through creating artwork. Specifically when working with children with ASD, the use of various materials and textures can be effective to address comorbid sensory integration disorder (SID), or an inappropriate reaction to certain external stimuli (Richardson, 2015). In addition to SID, children on the spectrum frequently experience impaired attachment to their caregiver as a result of deficits in social behaviors. However, there is a lack of interventions that use art therapy to confront impaired attachment. Durrani's S-BRATA framework is a recent and novel development that addresses both SID and impaired attachment through art therapy. In this paper, the author first discusses in broad terms ASD, art therapy, and their overlap. The author next investigates the status of parents of children with ASD in Japan before examining Durrani's S-BRATA Framework and its seven themes. Finally, the author proposes the adoption of the S-BRATA Framework with cultural adaptations by Japanese art therapists

Methods

This paper applies purely correlational research based on categorical observations. It is meant to guide practitioners and suggest further avenues for research, but it is not based upon experimental data and should not be viewed as such.

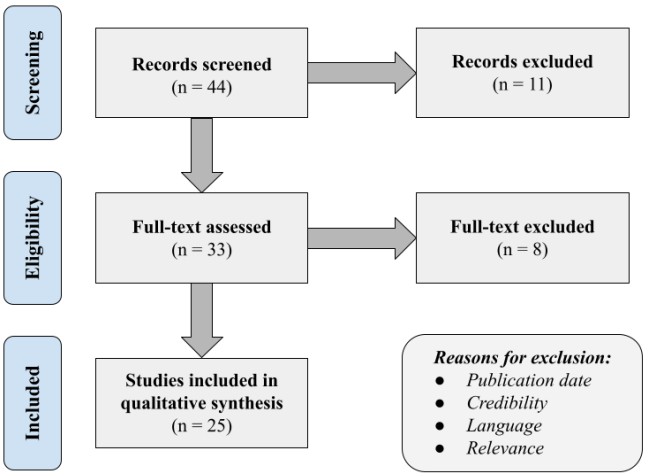

FIGURE 1. PRISMA Flow Diagram showing the vetting process of this systematic review of 43 articles.

Defining Autism Spectrum Disorder

Effective communication and social interaction are vital for functioning in everyday life. They allow one to express feelings, concerns, emotions, and ideas while also understanding those of others, which consequently helps one develop strong relationships. Autism Spectrum Disorder (ASD) is a developmental disorder which is diagnosed through exhibited "[d]eficits in social-emotional reciprocity… in nonverbal communicative behaviors used for social interaction… [and] in developing, maintaining, and understanding relationships" (APA, 2013, p. 50). Additionally, a person needs to exhibit at least two of the four following attributes:

"[1] Restricted, repetitive patterns of behavior, interests, or activities, as manifested by… stereotyped or repetitive motor movements, use of objects, or speech… [2] insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal or nonverbal behavior… [3] highly restricted, fixated interests that are abnormal in intensity or focus… [and 4] hyper- or hyporeactivity to sensory input or unusual interest in sensory aspects of the environment" (APA, 2013, p. 50).

While the external appearance of a person with autism is no different from a neurotypical individual, ASD can influence the way one learns, thinks, and acts (CDC, 2020). As the name implies, ASD is a 'spectrum condition' and thus affects people to varying degrees, ranging from the need for constant support to complete independence (Autism Society, 2020).

Diagnosis of autism is heavily reliant upon an individual's behavioral symptoms. Some early symptoms that can be observed include, but are not limited to, avoiding eye contact, a lack of interest in social interactions with friends or caretakers, difficulty verbalizing, and/or getting irritated by minor adjustments to one's routine (CDC, 2020). Signs of autism generally fall into two categories: those involving communication, social skills, and interpersonal relationships; and those involving restricted and repetitive behavior, patterns, activities, and interests (Autism Society, 2020).

Furthermore, sensory integration dysfunction (SID) and ASD are frequently comorbid in patients. SID is a condition in which an individual responds inappropriately to external stimuli ranging from strange textures to uncomfortable noises (Marco, Hinkley, Hill, & Nagarajan, 2011). SID can make it difficult for people with autism to engage in daily activities and interact in new environments because of an underlying fear of encountering uncomfortable stimuli.

While there is no cure for ASD, several therapies exist intended to support a person with autism function in day-to-day activities (Mayo Clinic, 2018). The goal of certain interventions is to address early symptoms of ASD so that they do not progress because of poor social experiences (Richardson, 2005). Additional methods may include applied behavioral analysis

(ABA), speech therapy, occupational therapy (OT), physical therapy (PT), family therapy, cognitive behavioral therapy, and art therapy.

Autism Spectrum Disorder is a complex condition in which each individual has their own unique needs. The varying degrees and symptoms of autism make approaches to supporting the person and methods of treatment personalized to one's requirements (Martin, 2009). Therefore, it is often difficult to treat ASD, as there are no specific guidelines or medical norms that encompass the entirety of the spectrum.

Art Therapy and ASD

According to the American Art Therapy Association (2017), "Art Therapy is an integrative mental health and human services profession that enriches the lives of individuals, families, and communities through active art-making, creative process, applied psychological theory, and human experience within a psychotherapeutic relationship" (p. 1). Art therapists work with a range of clients who may experience one of various difficulties, disabilities, or diagnoses. Additionally, art therapy is a subjective method of treatment, meaning it is provided depending on the needs of the client (British Association of Art Therapists, n.d.).

Through making art and reflecting on the finished artwork and the creative process, clients can increase their awareness of themselves and others; cope with symptoms (e.g. triggering stimuli), stress, and trauma; enhance cognitive abilities; and enjoy the pleasures and fun of making art (Edwards, 2004). The movement required in art making can trigger different somatic sensations (ability to interpret bodily sensations) and emotional areas of the brain, therefore causing stress-induced reactions that can regulate affect (Hass-Cohen & Findlay, 2015). Paints, in particular, which come in various colors and can be easily manipulated, can effectively trigger a range of emotions (Edwards, 2004). They also function to stimulate the clients' senses as there are several possible methods of application, and they can be mixed with other materials to create unique textures (Durrani, 2020).

While there is some evidence that supports the benefits of art therapy for clients with ASD, there are still mixed results on its efficacy. There is limited knowledge about the use of art therapy with clients with ASD, and further research is needed to clarify this relationship and improve the field's credibility (Martin, 2009). There is also a lack of quantitative studies in the field; most tend to be qualitative and based on personal interactions (Martin, 2009).

Autism and Parenting in Japan

The need for evidence-based interventions to assist children with autism and their parents in Japan is urgent. In recent studies, researchers have estimated that the prevalence of ASD in Japan is roughly 3.2% (Sasayama, Kuge, & Toibana, 2021). In comparison to the prevalence of individuals with ASD worldwide, which is approximately 0.625%, the numbers are relatively high in Japan (World Health Organization, 2021).

In Japanese culture, conformity and avoiding burdening others are both highly valued and thus, children are expected to act in harmony with others and to learn self-restraint (Asai & Kameoka, 2005). Therefore, being viewed as having a child with problematic behaviours could contribute to increased parenting stress. Moreover, seeking support from one's community, especially in the case of disabilities and mental illnesses, both of which are considered familial problems, is viewed as an act of disruption (Kayama, 2010). While a mother may receive some support from her partner, Japanese husbands are frequently uninvolved in matters relating to children and home (Suzuki et al., 2009). As a result, Japanese mothers carry large domestic responsibilities, likely heightening their stress levels (Sato et al., 2015).

Additionally, Japanese views on parenting emphasize closeness between mother and child as opposed to western parenting norms which push child independence. Thus, when Japanese

mothers fail to form a secure attachment to their child with ASD, they are more likely to doubt their identity as a mother (Kayama, 2010). Furthermore, in Japanese society, gender roles suggest that mothers are entirely responsible for taking care of the household and raising their children, and as a result, are frequently shamed for any behavioral issues (Sato et al., 2015). For example, mothers who do not bond strongly with their children may feel that they are to blame and may experience this blame from their peers (Porter and Loveland, 2018).

Family members of children with disabilities often experience stress; however, research points to much higher stress levels in mothers of children with ASD (e.g. Dolev, Sher-Censor, Baransi, Amara, & Said, 2016; Hayes & Watson, 2013). Parenting stress, according to Abidin (1992), is caused by stressors associated with the child domain and the parental domain. Issues relating to the child's behavior and symptoms fall under the child domain whereas parenting characteristics and the level of social support parents receive fall under the parental domain (Porter and Loveland, 2018). Certain symptoms of ASD, a stressor related to the child domain, including sensitivity to physical touch and lack of eye contact can cause a mother to feel less closeness and intimacy with their child. As a result, the struggle to develop a secure mother-child attachment may lead to the self-questioning of their maternal identity (Porter and Loveland, 2018). Additionally, lack of social support and feelings of isolation, a stressor linked to the parental domain, contribute to reduced mental well-being of mothers of children with ASD. A study conducted by Boyd (2002) illustrated how the lack of a support system contributes to maternal depression and anxiety. On the other hand, having a higher level of support correlates to increased maternal well-being and a more positive relationship with the child.

In an Integrative Review of Parenting Stress in Mothers of Children with Autism in Japan, Porter and Loveland (2018) demonstrated how Japanese mothers of children with ASD experience elevated levels of parenting stress similar to their Western counterparts. Further, child behaviour problems and low levels of social support, the causes of such high levels of parenting stress in Japanese mothers of children on the spectrum, are consistent with those of Western countries (Porter and Loveland, 2018). However, in addition to these stressors, this study provided evidence that Japanese cultural norms and views on parenting play a significant role in increasing parenting stress in mothers of children with autism. The review found that parenting stress is heightened when the child's intellectual ability is higher. When the child with ASD is intellectually able, others who do not know the child may not recognize that they have a disability. Thus, the child with ASD may be held to expectations that are greater than those placed upon children who exhibit more noticeable symptoms of ASD (Davis & Carter, 2008).

S-BRATA and Its Seven Themes

While treatment options for ASD in art therapy are limited, certain recent interventions have shown potential. Among these, Durrani's (2019) Sensory-Based Relational Art Therapy Approach is unique in that it specifically addresses comorbid Sensory Integration Disorder (SID) and impaired attachment exhibited in ASD. The S-BRATA is a framework intended to guide art therapists who work with children with ASD in supporting their diverse needs (Durrani, 2019). However, it can be applied to all forms of multisensory kinesthetic therapy, including all types of play therapy, due to its flexibility (Durrani, 2020). Beyond that, parents and guardians can also work with art therapists to use the S-BRATA framework to support their children. The S-BRATA framework is structured around seven themes, as seen in Figure 1. Durrani (2019) further notes that these themes can be adjusted to each child's needs regardless of domain.

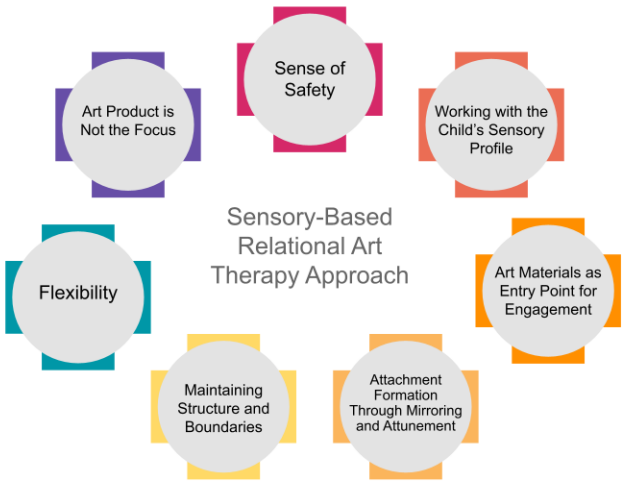

Figure 1: S-BRATA Framework.

Sense of Safety

Though she begins with the sense of safety, Durrani (2020) highlights that the 7 themes do not occur in a fixed order but rather run hand in hand with one another. When working with a child with ASD and comorbid SID who experiences high levels of anxiety, it is crucial to establish a safe environment. If a child feels uncomfortable in their surroundings, they are disengage in order to avoid potential threats or traumas (Durrani, 2020). In order to achieve a sense of safety, Durrani advises art therapists to hold back and make art themselves. Holding back is the concept of avoiding actively engaging with the client by, for example, making art to draw the child's attention, until they feel ready to participate without feeling threatened (Durrani, 2020). This is particularly important because children with ASD and SID are likely to experience elevated levels of stress (Gillott & Standen, 2007).

Working with the Child's Sensory Profile

Children with ASD and comorbid SID may respond atypically to specific external stimuli that cause pain or anxiety (Camarata, Miller, & Wallace, 2020). In order to prevent causing unintended anxiety to the child, it is highly necessary for the art therapist to become familiar with the client's sensory profile prior to entering therapy sessions (Durrani, 2020). If a child is not assured that they will not encounter any uncomfortable stimuli, they are likely to disengage and close off as a means of protecting themselves (Camarata, Miller, & Wallace, 2020). Thus, the themes of sense of safety and working with the child's sensory profile go hand in hand, as understanding how a child reacts to certain stimuli is a gateway into creating a safe environment.

Mirroring and Attunement

The mirror neuron system (MNS) is triggered when one watches another person complete an action, and mimics that same act. Through mimicking, it is suggested that one can understand another's intentions or state of mind (Kilner & Lemon, 2013). However, studies have shown that individuals with ASD have an impaired MNS, thus presenting and intensifying relational challenges for people on the spectrum (Gallese, 2005; Oberman, Pineda, & Ramachandran, 2007). It can be suggested that "mirroring or reflecting back to the child with ASD not only promotes attachment, it may also have a positive impact on the development of the MNS," though this claim remains under-researched (Durrani, 2020).

Art Materials as Entry Point

This theme addresses both SID in children with ASD and impaired attachment (Durrani, 2020). There are a wide variety of art materials, both traditional–paints, clay, and pencils–and non-traditional–shaving foam and slime–that provide different textures and visceral qualities (Edwards, 2004). Additionally, the lure of art materials can encourage children to engage with the art therapist, thus laying the foundation for a relationship between the client and the therapist (Richardson, 2015). Taking into consideration the sensory profile of the child, the art materials can be used to both minimize stress as well as encourage reserved clients to engage in the session, though loose materials such as paint and foam should be used judiciously as they may cause dysregulation or discomfort to children who are hypersensitive to physical stimuli (Durrani,

2020). Moreover, systematically exposing the child to unique textures and art materials is suggested to both decrease extreme sensitivity to certain tactile sensations and improve behaviors and skills that are interrupted by tactile over-responsivity (Camarata, Miller, & Wallace, 2020)

Maintaining Structures and Boundaries

Art therapists can use both directive and non-directive approaches when working with children with ASD (Kottman, Dickinson, Meany-Walen, 2017). In order to create a safer atmosphere for the child, an art therapist may take a non-directive approach, allowing the client to lead the session without feeling forced or threatened (Durrani, 2020). On the other hand, taking a directive approach involves the therapist preparing a plan and goals for the client, which creates a more structured session (Durrani, 2020). Though a directive approach may be useful, the session can quickly become overwhelming for the client. Thus, a therapist might engage in a non-directive approach instead (McNeilly, 1983). While the S-BRATA is not considered a highly structured approach, structure and boundaries should be incorporated to some extent to control certain behaviors, as children with ASD may experience anxiety when routine is absent (Durrani, 2020).

Flexibility

Durrani (2020) states that "[t]he need for flexibility across all the themes of the S-BRATA [is] increasingly apparent due to the complexity of the spectrum and the unpredictability of each child's response from one session to the other" (para. 2). Because ASD is a spectrum disorder, each child requires different levels and types of support, and thus, flexibility is necessary to accommodate their needs (Autism Society, 2020). Flexibility in art-making, or not restricting artwork to a particular area or medium, allows the children to take part in the session on their own terms rather than forcing them to participate (Edwards, 2004). Flexibility also entails, at times, substituting art materials with other toys with unique textures, sizes, and colors to both address sensory regulation and keep the child motivated and engaged while working with the therapist (Durrani, 2020). Furthermore, the behavior of children with ASD is often unpredictable, thus making flexibility necessary in order to address such behaviors (Autism Society, 2020).

Art is Not the Focus

The process of art-making heavily revolves around exposing the child to different materials and textures in order to address sensory regulation (Durrani, 2020). Though the process of mark making and experimenting with art tools and materials is often the focus of the sessions, it is still very much possible for the final product to hold some symbolic value (Edwards, 2004). However, Durrani (2020) states that when working with children at the lower end of the spectrum, the final artwork often does not carry much value, as the sensory experience of artmaking is foremost.

The Need for S-BRATA in Japan

In Western countries, mothers of children with ASD experience high levels of parenting stress due to factors relating to behavioral characteristics of the child as well as the lack of social support (Porter and Loveland, 2018). Boyd (2002) found that lower levels of support is associated with maternal depression and anxiety and impaired attachment to the child with ASD. Particularly in Japan, where approximately 3.22% of 5-year-olds have ASD (Iwasaki, 2020), mothers of children on the spectrum demonstrated high levels of parenting stress caused by factors related to both the child and parent domains as in Western countries (Porter and Loveland, 2018). However, cultural norms and strong views on parenting also play an important role in increasing parenting stress, which in conjunction with impaired attachment related to ASD, affects Japanese mothers (Porter and Loveland, 2018).

While other psychological interventions are being introduced to confront ASD in Japan, Durrani's S-BRATA framework explicitly addresses sensory integration disorder and its effects on impaired

attachment. Additionally, other approaches are not targeted toward the well-being of parents (Porter and Loveland, 2018). Therefore, the author proposes the adoption of Durrani's S-BRATA framework to address impaired attachment between child with ASD and mother in Japan.

However, it is important to consider that the S-BRATA framework was developed in Singapore and needs to be translated into a Japanese cultural context. Cultural differences affect the way emotions are recognized. For example, in Japan, people tend to focus more on one's eyes when determining sadness or happiness whereas in Western countries, people rely more upon the mouth (Yuki, Maddux, & Masuda, 2007). Similarly, social norms in Japan differ from other nations, such as the United States.

An example of an intervention that was translated to suit Japanese participants was the Program for the Education and Enrichment of Relational Skills (PEERS) originally developed in the United States. In order to adapt the PEERS intervention to suit Japanese culture, the following steps were taken: 1) program was translated into Japanese by practitioners, 2) non-practitioner translators reviewed the translation, 3) a trial experiment was hosted and the intervention was adjusted based on feedback, and 4) the researchers observed Japanese teens for cultural norms and adjusted the framework as needed (Yamada, 2019). The results of the study "indicated that with minor cultural changes, PEERS is effective in improving social skills related to making and keeping friends for adolescents with ASD in Japan." (Yamada, 2019, para. 46). Similarly, S-BRATA might be adapted through the consideration of specific media commonly found in Japan and awareness of cultural norms in social interactions. This needs to be developed in conjunction with Japanese families and art therapists who know the situation best.

Conclusion

The frequency of ASD diagnoses in Japan is exceptionally high. While interventions using traditional clinical psychology methods are being explored, art therapy remains underutilized as a treatment for Japanese people with ASD. Furthermore, levels of parenting stress are elevated among Japanese mothers of children with ASD due to factors relating to the child's problem behaviors, the lack of social support, and cultural views on parenting in Japan.

Thus, Durrani's S-BRATA framework, with minor adjustments to make it appropriate to a Japanese cultural context, should be adopted by practitioners of art therapy in Japan to address the growing number of people with ASD. The S-BRATA model, in addition to confronting comorbid SID and impaired attachment, may also address the extremely high levels of stress among Japanese mothers. It is the author's hope that this paper guides art therapists in Japan as they expand their practice to be more inclusive of their clients' needs.

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