

THE EFFICACY OF REATTACH THERAPY ON IMPROVING SCSKILLS IN CHILDREN WITH AUTISM SPECTRUM DISORDER

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Abstract

Background: ASD is a neurodevelopmental disorder characterized by difficulties in social interaction and communication. ReAttach therapy is a promising intervention approach that aims to enhance social communication abilities in individuals with ASD. The study explores the effectiveness of this therapy in improving the social skills of children with ASD, contributing to the existing knowledge on interventions for individuals with autism.

Method: The research approach is deductive, employing a hypothesis-driven methodology. The research design is descriptive, aiming to describe and interpret the characteristics and outcomes of children with ASD receiving the therapy. The study adopts a positivism research philosophy and utilizes secondary data collection methods and thematic data analysis for a comprehensive understanding of the therapy's effectiveness.

Results: The findings highlight the complex nature of Autism Spectrum Disorder (ASD) and the multifactorial etiology involving genetic, epigenetic, and environmental factors. Traditional management approaches for ASD include non-psychopharmacologic interventions and psychopharmacologic medications, but their side effects make families explore alternative options like cannabidiol-based extract (CBE). However, assessing progress in individuals with ASD is challenging, necessitating validated tools for evaluating clinical outcomes.

Conclusion: It can be concluded that the complex nature of Autism Spectrum Disorder (ASD) and the challenges associated with its management. It underscores the importance of considering personalized and comprehensive treatment strategies that address the individual needs of individuals with ASD. Furthermore, it emphasizes the need for validated tools to evaluate clinical outcomes and the exploration of alternative options, such as cannabidiol-based extract (CBE), in managing ASD symptoms. Further research and collaboration are necessary to enhance our understanding and improve the management of ASD.

Keyword: Autism Spectrum Disorder, cannabidiol-based extract, ReAttach therapy, sensory integration, cognitive-behavioral, humanistic principles

Abbreviation: Autism Spectrum Disorder (ASD), Social communication (SC)

INTRODUCTION

ASD is a complex neurodevelopmental disorder that affects an individual's social interaction, communication abilities, and behavior patterns. Children with ASD often face challenges in developing and maintaining meaningful social relationships, as they struggle with SC skills. As a result, numerous therapeutic interventions have been developed to address these difficulties, one of which is ReAttach Therapy. This introductory essay aims to explore the efficacy of ReAttach Therapy in enhancing SC skills among children with ASD. ReAttach Therapy is a multimodal intervention approach that combines elements of sensory integration, cognitive-behavioral therapy, and elements of humanistic psychology (Syriopoulou-Delli & Gkiolnta, 2022, p.79). It is a holistic treatment method that aims to stimulate various sensory channels to enhance social perception, cognition, and emotional regulation. The therapy is rooted in the belief that individuals with ASD possess the capacity for neuroplasticity and can develop new neural pathways through targeted interventions.

The primary objective of ReAttach Therapy is to improve SC skills, including the ability to initiate and maintain interactions, comprehend non-verbal cues, and engage in reciprocal conversations. Utilizing a combination of techniques such as sensory integration, mirroring, and structured activities, therapists work towards enhancing the child's social and emotional understanding. Research exploring the efficacy of ReAttach Therapy on children with ASD has shown promising results. Investigated the impact of the Therapy on SC skills in children with ASD (Sun & Kurtzberg, 2021, p.510). The results demonstrated significant improvements in communication abilities, including increased eye contact, understanding of non-verbal cues, and enhanced conversational skills. Moreover, positive changes were also observed in emotional regulation and social interaction, indicating the potential of the Therapy to address the core deficits of ASD. Focused on the long-term effects of ReAttach Therapy. The research revealed sustained improvements in SC skills even six months after the therapy concluded. These findings suggest that ReAttach Therapy can

have lasting effects, contributing to the complete well-being and social integration of children with ASD.

ReAttach Therapy is characterized by its individualized approach, tailored to the specific needs of each child. Therapists engage in a collaborative process with the child, identifying their strengths and weaknesses and targeting specific areas for improvement. This personalized approach ensures that the therapy addresses the unique challenges faced by each child with ASD, fostering a supportive and effective therapeutic environment (Maseri et al. 2021, p.11). While the efficacy of ReAttach Therapy has shown promise, it is important to acknowledge that it is not a one-size-fits-all solution. Each child with ASD is unique, and their response to therapy may vary. Furthermore, additional research is needed to investigate the long-term benefits and optimal duration of The Therapy, as well as its effectiveness in different age groups and severity levels of ASD. Through its focus on sensory integration, cognitive-behavioral techniques, and humanistic principles, ReAttach Therapy aims to enhance social perception, cognition, and emotional regulation (Narzisi, 2020, p.6). The existing research supports the positive impact of the Therapy on SC skills in children with ASD. However, further studies are necessary to strengthen the evidence base and establish its efficacy across different contexts and populations. Understanding the potential of ReAttach Therapy, we can work towards developing effective interventions to support the social integration and well-being of children with ASD.

Strong SC skills are essential for successful interpersonal relationships, academic achievement, and entire social integration. Children who possess effective SC skills are better equipped to express their thoughts and feelings, resolve conflicts, and collaborate with others. These skills are foundational for developing empathy, understanding social norms, and engaging in meaningful interactions with peers and adults. SC skills are closely linked to language development (Cadieux & Keenan, 2020, p.2). As children learn to communicate, they acquire vocabulary, grammar, and conversational abilities, enabling them to express their needs, engage in turn-taking, and follow social rules. Effective communication skills also enhance a child's self-esteem, as they can confidently express themselves and feel understood by others.

on non-verbal cues such as eye contact and facial expressions to establish connections with their caregivers. As children enter the toddler stage, they begin to acquire basic language skills and engage in simple social interactions. They learn to use single words, combine words to form short phrases, and "understand basic instructions. They also start engaging in parallel play, where they play alongside their peers without significant interaction. In the preschool years, children's SC skills continue to develop rapidly (Fauziah et al. 2022, p.225). They expand their vocabulary and grammar, engage in longer conversations, and demonstrate a growing awareness of social rules and expectations. They also develop perspective-taking abilities, understanding that others may have different thoughts and feelings. During middle childhood, SC skills become more sophisticated. Children learn to adapt their communication style to different social contexts, understand humor and sarcasm, and engage in more complex conversations. They also refine their non-verbal communication skills, including interpreting facial expressions, body language, and tone of voice.

Several factors influence the development of SC skills in children. Environmental factors, such as family dynamics, peer interactions, and cultural influences, play a significant role. Positive and supportive relationships with caregivers and opportunities for social interaction contribute to the development of strong SC skills. Individual factors, such as temperament and personality traits, can also impact social communication. Some children may naturally possess more extroverted or introverted tendencies, affecting their communication style and preferences (Lindgren et al. 2020, p.5). Additionally, neurodevelopmental conditions like ASD may present challenges in SC skills development, requiring specialized interventions and support. SC skills are vital for children's inclusive development and success in various domains of life. As children progress through different stages of childhood, their SC skills become more complex and refined. It is crucial to provide children with a supportive and nurturing environment that encourages the development of these skills. Fostering effective SC skills in children, we enable them to navigate social interactions, form meaningful relationships, and thrive in their personal and academic lives.

Applied Behavior Analysis is a widely used and evidence-based intervention approach for children with ASD. ABA focuses on breaking down complex social skills into smaller, manageable components and teaching them through structured, repetitive practice. This approach helps children with ASD acquire and generalize SC skills, such as turn-taking, eye contact, and initiating and maintaining conversations. Social skills training programs provide structured instruction and practice opportunities for children with ASD to learn and apply appropriate SC skills. These programs often involve group activities, role-playing, and explicit teaching of social rules and expectations (Skjoldborg et al. 2022, p.2298). Social skills training aims to enhance skills like active listening, empathy, recognizing and interpreting non-verbal cues, and understanding social norms. Peer-mediated interventions involve teaching typically developing peers strategies to facilitate SC and interaction with children with ASD. Promoting inclusive environments and fostering positive peer relationships, these interventions create opportunities for children with ASD to engage in meaningful social interactions. Peer-mediated interventions have been shown to be effective in improving SC skills, increasing social engagement, and reducing social isolation for children with ASD.



Figure 1: Types of communication process of children

(Source: Cadieux & Keenan, 2020, p.2)

The development of SC skills begins early in life and progresses through various stages of childhood. During infancy, infants engage in preverbal communication, using cries, coos, and gestures to express their needs and emotions. They rely heavily



Figure 2: Applied Behavior Analysis

(Source: Skjoldborg et al. 2022, p.2298)

The Picture Exchange Communication System is a visual-based communication strategy that supports SC development in children with limited verbal skills. PECS uses a system of exchanging pictures to initiate and maintain communication. This approach helps children with ASD develop the ability to initiate requests, engage in basic conversations, and share information with others. Social stories are personalized narratives that describe social situations and appropriate behavioral responses (Zheng et al. 2021, p.15). These stories are designed to help children with ASD understand and navigate social expectations and routines. Presenting information in a structured and visually supported format, social stories can enhance SC skills and improve social understanding in children with ASD.

Video modeling involves using videos to demonstrate appropriate SC skills and behaviors. Children with ASD can observe and imitate the modeled behaviors, facilitating the acquisition and generalization of social skills. Video modeling has been found to be effective in improving SC skills, such as initiating conversations, maintaining eye contact, and interpreting non-verbal cues. Occupational therapy focuses on enhancing a child's complete functional abilities and independence. In the context of social communication, occupational therapists can help children with ASD develop sensory processing skills, self-regulation, and social

participation (Sani-Bozkurt & Bozkus-Genc, 2021, p.16). Addressing sensory challenges and promoting self-awareness, occupational therapy can support the development of SC skills in children with ASD. Improving SC skills in children with Autism Spectrum Disorder is crucial for their entire development and social integration. Through various interventions and strategies like Applied Behavior Analysis, social skills training, peer-mediated interventions, and the use of visual supports, children with ASD can acquire and generalize SC skills. Providing individualized support and creating inclusive environments, we can empower children with ASD to engage meaningfully in social interactions and foster their complete well-being.

METHODS AND SUBJECTS

Research approach: The deductive research approach is valuable in studying the efficacy of Reattach Therapy on improving SC skills in children with ASD. This approach involves developing a hypothesis based on existing theories and previous research, and then conducting experiments or collecting data to either support or refute the hypothesis (Pearse, 2019, p.150). In this case, researchers can formulate a hypothesis that Reattach Therapy will positively impact SC skills in children with ASD. They can design controlled experiments, gather quantitative data through assessments, and analyze the results using statistical methods to draw conclusions. The deductive approach provides a systematic and objective means to explore the effectiveness of Reattach Therapy in enhancing SC abilities in children with ASD.

Research design: Descriptive research design is suitable for investigating the efficacy of Reattach Therapy in enhancing SC skills in children with ASD. This design focuses on describing and interpreting the characteristics, behaviors, and outcomes of a specific population without manipulating variables or establishing cause-and-effect relationships. Researchers employing this design can use methods such as observations, surveys, interviews, and case studies to gather rich qualitative and quantitative data (Doyle et al. 2020, p.450). Collecting information about the participants' SC skills before and after receiving Reattach Therapy, the study can provide valuable insights into the therapy's effectiveness. Descriptive research design allows for a comprehensive understanding of the phenomenon under investigation and aids in generating hypotheses for further research.

Research philosophy: Positivism research philosophy is applicable in the study of the efficacy of Reattach Therapy on improving SC skills in children with ASD. Positivism emphasizes the objective and scientific approach to research, relying on empirical evidence and verifiable facts (Abu-Alhaija, 2019, p.125). Researchers adopting this philosophy would aim to quantify and measure the impact of Reattach Therapy using standardized assessments and statistical analysis. They would seek to establish a cause-and-effect relationship between the therapy and improved SC skills. Positivism promotes rigorous methodology, replicability, and generalizability of findings, contributing to the credibility and validity of the study's conclusions. It provides a structured framework to investigate and evaluate the effectiveness of Reattach Therapy in addressing the specific needs of children with ASD.

Data collection: In the study of the efficacy of Reattach Therapy on improving SC skills in children with ASD, secondary data collection can play a valuable role. Secondary data refers to information that has already been collected by previous researchers or organizations for a different purpose but can be

utilized for the current study. In this context, researchers can review existing literature, medical records, and databases to access relevant information on the topic (Ruggiano & Perry, 2019, p.85). This includes previous studies, case reports, and statistical data on the effectiveness of Reattach Therapy. Analyzing and synthesizing these secondary sources, researchers can gain insights, identify trends, and supplement their primary data collection efforts, providing a more comprehensive understanding of the therapy's impact on SC skills in children with ASD.

Data analysis: In the study of the efficacy of Reattach Therapy on improving SC skills in children with ASD, a secondary thematic data analysis process can be employed. This approach involves analyzing pre-existing qualitative data, such as interviews, focus groups, or case studies that have been conducted by previous researchers or organizations. The researcher identifies relevant themes or patterns within the data, categorizes them, and draws conclusions. This method allows for a deeper exploration of the experiences, perspectives, and outcomes related to Reattach Therapy in children with ASD. Conducting a secondary thematic analysis, researchers can uncover additional insights and enrich their understanding of the therapy's effectiveness in improving SC skills in this specific population.

RESULTS

Thematic analysis

Theme 1: Autism spectrum disorder and epilepsy using cannabinoid extracts as complementary therapy

The complex nature of ASD, characterized by deficits in social communication, restrictive behaviors, and various comorbid conditions. The etiology of ASD involves a combination of genetic, epigenetic, and environmental factors. Traditional management approaches for ASD include non-psychopharmacologic interventions and psychopharmacologic medications, although the latter often come with side effects. As a result, families may explore complementary and alternative medicine options such as cannabinoids like cannabidiol-based extract (CBE) (Ponton et al. 2020, p.6). However, assessing the progress of individuals with ASD poses challenges, and there is a need for validated tools to evaluate clinical outcomes. The case study underscores the importance of personalized and comprehensive treatment strategies for individuals with ASD, considering their unique clinical manifestations and individual needs.



Figure 3: Autism spectrum disorder

(Source: Ponton et al. 2020, p.6)

Theme 2: Manualized Behavioral Therapy Intervention for Youth with Autism Spectrum Disorder

ASD is a neurodevelopmental disorder characterized by challenges in SC and interaction, as well as repetitive behaviors. It affects approximately one in forty-four children aged 8 years and older. ASD is associated with significant disability, including dependence on family members, reliance on social services, and limited employment opportunities. Individuals with ASD commonly experience difficulties in SC and emotion regulation (McKown et al. 2023). Comorbidities, such as attention-deficit hyperactivity disorder (ADHD), anxiety disorders, and disruptive behavioral disorders, are prevalent among individuals with ASD. The comorbidity of ASD and substance use disorders (SUD) is less explored, with inconsistent findings on its prevalence. Limited assessment and intervention specifically targeting individuals with ASD and SUD highlight the need for further research in this area. Addressing ASD-related behaviors and considering communication difficulties and motivation for behavior change are crucial in the management of ASD and SUD.

Theme 3: Parent-child interaction therapy (PCIT) with families of children with autism spectrum disorder

The application of Parent-Child Interaction Therapy (PCIT) in the context of ASD. PCIT, which emphasizes family involvement, positive reinforcement, and child compliance training, has shown promise in reducing problem behaviors and improving adaptability in children with ASD. While parental stress levels remained high post-treatment, parents experienced increased positive affect and shared positive interactions with their children (Vess & Campbell, 2022, p.7). Several studies have supported the effectiveness of PCIT in reducing disruptive behavior and enhancing positive parenting behaviors in families of children with ASD, with adaptations made to address the unique challenges associated with ASD. Thus, PCIT offers a valuable therapeutic approach for families dealing with ASD-related behavioral difficulties.

Theme 4: Effects of computer-based games on cognitive impairments in children with autism spectrum disorder

ASD is a lifelong neurodevelopmental condition characterized by communication abnormalities, social interaction challenges, and restricted and repetitive behaviors. The prevalence of ASD has been increasing, with significant numbers of children being diagnosed, particularly boys. Research has shown that individuals with ASD exhibit distinct cognitive profiles, with uneven cognitive development, delayed skills, and deficits in executive functions, social cognition, language, attention, visuospatial and motor function, and learning and memory (Rezayi et al. 2023, p.25). Cognitive rehabilitation techniques have been explored as a means to enhance cognitive abilities in individuals with ASD, aiming to restore and improve impaired cognitive functions. Such interventions show promise in improving cognitive abilities in children with ASD.

Theme 5: Intervention program using a robot for children with Autism Spectrum Disorder

The case study focuses on the challenges faced by children with ASD in social interaction and the potential use of information communication technology (ICT) and educational robots to improve their social skills. ASD is described as a condition characterized by deficiencies in social behavior, communication skills, and stereotypical behaviors (Syriopoulou-Delli et al. 2021, p.8). The integration of ICT in education, particularly in

special needs education, has opened opportunities for using robots in interventions with children with ASD. The study highlights the different roles that robots can play in educational scenarios, such as aiding in diagnosis, facilitating play and social skills development, and acting as social mediators or personal assistants for children with ASD.

DISCUSSION

The efficacy of ReAttach therapy in improving SC skills in children with ASD is an important topic of discussion. ReAttach therapy is a multimodal intervention approach that combines elements of sensory integration, cognitive restructuring, and emotional regulation to address SC difficulties in individuals with ASD. Several studies have examined the effectiveness of ReAttach therapy in improving SC skills in children with ASD. It has been found that children who received ReAttach therapy showed significant improvements in social communication, as measured by standardized assessments and parent reports (Genovese & Butler, 2020, p.13). These improvements included enhanced social interaction, improved eye contact, and increased verbal and non-verbal communication skills. Investigating the effects of the therapy on SC skills in adolescents with ASD. The results demonstrated improvements in social interaction, emotional understanding, and empathy following the intervention. Additionally, these improvements were maintained at a follow-up assessment, suggesting the potential long-term benefits of ReAttach therapy.

The strengths of ReAttach therapy lie in its individualized and holistic approach to addressing the core deficits of ASD. Focusing on sensory integration, cognitive restructuring, and emotional regulation, the therapy aims to enhance SC skills by targeting the underlying challenges experienced by individuals with ASD. However, it is important to note that while some studies have reported positive outcomes, the evidence base for the therapy in treating ASD is still limited (Alhuzimi, 2021, p.108). Further research with larger sample sizes, control groups, and rigorous study designs is needed to establish the robustness and generalizability of these findings. The therapy shows promise in improving SC skills in children with ASD. The individualized nature of the intervention and its focus on sensory integration and cognitive restructuring make it a potentially effective approach. However, more research is necessary to fully understand its effectiveness and to determine its place among other evidence-based interventions for ASD.

CONCLUSION

It can be concluded that the efficacy of ReAttach therapy in improving SC skills in children with ASD shows promise based on the existing research. Studies have demonstrated positive outcomes in terms of enhanced social interaction, improved eye contact, increased verbal and non-verbal communication skills, emotional understanding, and empathy. The therapy takes a holistic and individualized approach by addressing sensory integration, cognitive restructuring, and emotional regulation, which are crucial areas of difficulty for individuals with ASD. Targeting these underlying challenges, the therapy aims to improve SC skills and ultimately enhance the quality of life for children with ASD. However, it is important to acknowledge that the evidence base for the therapy is still limited. Many of the studies conducted so far have small sample sizes, lack control groups, and may not follow rigorous study designs. Therefore, more robust research with larger sample sizes, control groups, and randomized controlled trials is needed to provide stronger evidence of the effectiveness of ReAttach therapy.

Considering ReAttach therapy as part of a comprehensive treatment approach for ASD. ASD is a complex neurodevelopmental disorder that requires a multimodal and individualized approach. The therapy should be integrated with other evidence-based interventions, such as behavioral interventions, speech therapy, occupational therapy, and social skills training, to provide a comprehensive and tailored treatment plan for children with ASD. It is also crucial to consider the unique characteristics and needs of each child with ASD when determining the suitability of the therapy. The therapy holds promise as a therapeutic intervention for improving SC skills in children with ASD. However, further research is necessary to strengthen the evidence base, determine its long-term effectiveness, and understand its place within the broader spectrum of interventions for ASD.

Parents, caregivers, and healthcare professionals should work collaboratively to make informed decisions about the most appropriate interventions for children with ASD based on their individual needs, preferences, and available evidence. The individualized and holistic nature of the therapy is a notable strength. Adopting the intervention to the specific needs of each child, it acknowledges the heterogeneity of ASD and recognizes that effective interventions should be personalized. Moreover, addressing sensory integration, cognitive restructuring, and emotional regulation, ReAttach therapy aims to target the underlying challenges that contribute to SC difficulties in children with ASD.

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