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A Literature Review of the Effectiveness of Arts Therapies with Childhood Trauma

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Abstract. Childhood trauma, including various experiences during early life stages, has a profound and lasting impact on a child's psychological, emotional, and social development. Arts therapies have been widely applied by therapists and counselors when working with children. However, although positive effects of arts therapies are often reported, the effectiveness in treating childhood trauma has not been fully established in the literature. This study aims to explore whether arts therapies offer an effective therapeutic approach for children with childhood trauma. Published articles from the past two decades that focus on the use of game therapy, music therapy, and visual art therapy in healing traumatized children are included in this review, as these three methods have played significant roles in previous studies. On a theoretical level, this review finds that arts therapies can improve traumatized children's brain functions and help children recover from trauma more effectively. On an empirical level, arts therapies are suggested to be more adaptable for traumatized children. Additionally, they are inferred to benefit traumatized children, particularly those suffering from negative psychological consequences. Although there are limitations in the number of included quantitative researches, the results show that arts therapies are effective tools for healing childhood trauma. For future studies, it is recommended that quantitative researches be conducted with larger sample groups over longer periods of time, and that more specific categorization and widely used indices be employed to carry out meaningful meta-analyses.

Keywords: Arts Therapies, Childhood Trauma, Game Therapy, Music Therapy, Visual Art Therapy

1. Introduction

Childhood trauma can have long-lasting negative effects on an individual's psychological, emotional, and social development. "Child trauma" is defined as a frightening, dangerous, violent, or life-threatening event that occurs to a child (0-18 years old) [1]. Childhood trauma is a painful issue from all over the world, leaving deep and lasting marks on a child's emotional, psychological, and

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social development. It includes all those traumatic experiences of abuse, neglect, loss, or violence that cause such a strongly negative impact on an individual's development of psychological, emotional, and social character.

Childhood trauma is an event experienced by a child that causes fear and is often violent, dangerous, or life-threatening [2]. Childhood trauma can have a lasting impact on mental health, including anxiety, depression, and posttraumatic stress disorder. Whereas traditional therapeutic approaches have proved their efficiency in many cases, they tend to face difficulties while exploring the non-verbal and more subtle dimensions of traumatic early life experiences. "Art therapy is a mental health 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" [3]. Among various art therapies are those including visual arts, music, dance, theater, and writing as complementary or alternative ways for them to research and express feelings in non-verbal means often more accessible. In recent years, the attention has been focused on the arts therapies, mainly music and game therapies, as promising interventions that could help children cope with and recover from traumas. Unlike traditional talk therapy, which may be intimidating to young children, art therapy expresses, processes, and heals through creative means. This capitalizes on children's natural mischievousness and creativity, thus being effective in recovery from trauma during childhood.

A helpful kind of therapy is game therapy, which integrates cognitive behavioral principles, narrative theory, and more in an interactive and playful manner. Children will act out emotions and life-like situations through various practical plays and games, thereby negotiating their emotional expressiveness and problem-solving skills within safe precincts. As would therefore be predicted by studies, with game therapy, children improve in their psychological and social knowing; thus, it is increasingly useful for trauma-related mental health challenges among children.

Music, being the core of this review, or music therapy, is based on therapeutic mechanisms that apply to music and may directly influence the emotional and psychological states. Different rhythms, melodies, and harmonies create varieties of emotional responses, such as relaxation, excitement, and calmness, respectively, through music. This process is closely related to brain physiology since it affects cognitive and emotional processing. In fact, childhood trauma has been found to be related to deeper involvement with music and using music as an emotional regulator. Music therapy allows the cognitive, affective, physical, narrative, and social dimensions of music to create a multi-faceted therapeutic environment in which it is safe to explore and process one's emotions.

Visual art therapy is also a promising form of therapy that provides a relatively safe environment for children to process trauma and recover from traumatic experiences through a non-verbal means of self-expression, emotional regulation and healing.

The review attempts an in-depth analysis of the effectiveness of arts therapies, in particular game, music, and visual art therapies, in treating childhood trauma. The data are based on both qualitative and quantitative studies carried out during the past two decades and underlines the therapeutic effect of discussed treatments. Although the existing literature suggests that arts therapies can elicit improvements in emotional regulation, social skills, and mental well-being of participants, this is still a relatively new area, and there is a striking absence of large-scale quantitative studies. Therefore, the current review not only evaluates the existing evidence but also calls for more empirical research to establish how arts therapies work in promoting the healing processes of children from the consequences of childhood trauma.

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2. Game therapy and childhood trauma

Childhood is an important period of emotional and psychological development. In these years of development, traumatic experience will leave long-term trauma, which will affect people's mental health and social interaction until adulthood. Traditional treatment methods provide important support for children in trauma treatment, but innovative methods such as game therapy are recognized for their effectiveness [4]. This paper discusses game therapy, its methods, advantages and its role in the elimination of children's trauma, and discusses the future development prospect of this field.

2.1. Overview of game therapy

Game therapy is an innovative treatment method, which combines the framework of various methods to support emotional expression and psychotherapy, especially among children and adolescents. Different from traditional dialogue therapy, game therapy takes advantage of young people's natural tendency to participate in games and interactive activities. Through games, therapists create media [5]. Through this media, children can express their feelings, experience and develop coping mechanisms in a non-threatening and attractive environment. This method not only makes it easier for young people to accept and use treatment, bu't also helps to deepen emotional connection and understanding.

2.2. Therapeutic techniques

Game therapy combines several therapies and creates a comprehensive treatment experience. It includes cognitive behavioral therapy (CBT) to help people identify and change negative thinking patterns. Story therapy enables children to reconstruct their history. Game therapy uses games as a way of communication and expression [6].

In the process of typical game therapy, the therapist creates a relaxed and safe environment to make children feel comfortable. Encourage participants to explore and express their feelings through various games and activities. For example, desktop games can be used to learn problem-solving skills, and role-playing games can let children express and deal with emotions [7]. All these activities are carefully selected and organized according to the treatment objectives, ensuring that each course contributes to children's emotional and psychological recovery.

2.3. Benefits of game therapy

Play therapy provides many benefits and contributes to the emotional and social development of children and adolescents. One of the main benefits is to improve emotional expression. Games provide a unique platform for children to express their feelings that may be difficult to express in words. This can bring greater emotional awareness and the ability to discuss feelings more openly.

In addition, game therapy can improve social skills and emotional regulation. Through common games and communication, children learn to cooperate, share and resolve conflicts. This is the basic skill of healthy communication. For example, in role-playing games, participants usually need different perspectives to improve their ability to resonate and solve problems. These skills are very important for injured children. Because it helps to build healthier relationships and manage emotions more effectively.

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2.4. Childhood trauma

Child trauma refers to a bad experience that seriously affects children's emotional and psychological development. Common wound causes include physical, emotional and sexual violence; Neglect; Loss of family members due to death or separation from domestic violence. These injuries will damage children's sense of security and stability and cause long-term mental health problems [8].

Children with trauma are at higher risk of anxiety, depression and post-traumatic stress disorder (PTSD). These situations can be expressed in many ways, including behavioral problems, academic difficulties and problems related to the formation of relationships. Eliminating children's trauma is very important to prevent these mental health problems and promote overall health.

2.5. Positive results of game therapy

The practical application of research and game therapy shows that children who have experienced trauma have obviously improved their emotional and social functions. An important positive result is the enhancement of emotional expression. Children are more likely to share their feelings and experiences in a supportive and play environment. This is an important step in recovery.

Game therapy also helps to cultivate participants' sense of security and cooperation. By playing together, children learn to trust each other and work hard for a common goal. This sense of community is especially useful for children who suffer from isolation and distrust due to traumatic experiences.

In addition, game therapy promotes emotional regulation by providing children with tools and strategies to effectively manage their emotions. Participating in structured games allows children to practice overcoming mechanisms in a controlled environment, making it easier to apply these skills in real life. The auxiliary environment of play therapy ensures that it is safe for children to explore and express their feelings without judgment, which is conducive to deeper emotional healing.

2.6. Future expectations

The future of game therapy has a wide application prospect in clinical and educational environment. As we deepen our understanding of children's trauma and its consequences, more and more people regard game therapy as a valuable tool for therapeutic intervention. Integrating technology into game therapy can further improve participation and efficiency. Digital games, interactive software and virtual platforms provide new ways for therapeutic interaction, making them easier to get treatment and more attractive to young people.

What is particularly exciting is the potential use of virtual reality (VR) in game therapy. Virtual reality can create an exciting environment for children to explore and face the memories of fear and trauma safely under the guidance of therapists. This technology provides a practical simulation, which enables children to formulate countermeasures in a controlled and supported environment.

In addition, because game therapy has been widely accepted, standardized protocols and training programs can ensure consistent and effective implementation. The research on the curative effect of various game therapy methods will continue to improve and improve the informed treatment methods for children and adolescents.

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3. The impacts of music therapy on the resolution of childhood trauma

3.1. Music therapy and its therapeutic mechanisms

Music can directly influence an individual's emotions and psychological state. Different rhythms, melodies, and harmonies elicit distinct emotional responses, such as relaxation, excitement, or calmness. Music therapy, deeply tied to brain physiology, impacts both cognitive and emotional processing. Neuropsychological studies have demonstrated that music can serve as a therapeutic tool to improve brain function, particularly in the realm of emotional regulation.

For example, Rosenberg, Greenberg, and Lamb synthesized their perspectives on the therapeutic potential of music [9]. In previous research, Greenberg et al. discovered that individuals who experienced childhood trauma often engaged with music more frequently than those without such trauma [10]. Using a five-dimensional musical model [11], they identified notable differences between trauma survivors and non-trauma survivors. The model breaks down musical engagement into five components: cognitive, affective, physical, narrative, and social.

Cognitive engagement involves an analytical approach to music, focusing on sound elements such as acoustics and instrumentation.

Affective engagement centers on emotional expression and the influence of music on mood.

Physical engagement includes movement or dance in response to music.

Narrative engagement reflects an emphasis on the symbolic and storytelling aspects of music.

Social engagement highlights the interpersonal and communal experiences of music, where listeners feel connected to performers or other listeners.

Andeline Dos Santos also contributed to this discussion, emphasizing the layered exploration facilitated by music therapy [11]. She noted that while music can provoke cognitive insights, the therapeutic process is also deeply embodied. By integrating both cognitive and physical processing, music therapy creates a supportive space for growth and healing. In this context, music acts as a multi-faceted tool—provoking, inviting, deepening, calming, and containing emotions. During a music therapy session, the therapist serves as a witness to the client's experience, while the client simultaneously bears witness to their own emotional journey.

3.2. From an experiential perspective, music therapy has been shown to be effective in healing childhood trauma

Hsin-I Cindy Lai, Grace Thompson, and Katrina Skewes McFerran conducted a qualitative study on how music therapy creates a safe environment for children and adolescents with trauma [12].

(1) The experimental procedure and methodologies

This study employed hermeneutic phenomenology to explore the perspectives of 18 music therapists from 11 different countries. The therapists shared their experiences of cultivating safety and establishing secure environments during online interviews. The researchers used Interpretative Phenomenological Analysis (IPA) to analyze the data and generate meaningful results.

(2) Results and conclusions

Analysis of the interviews revealed four key themes that outline how music therapists create a sense of safety in their sessions. These themes include:

Establishing a safe space

Implementing semi-structured programs

Providing opportunities for control and choice

Thoughtfully incorporating music

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These techniques collectively highlight the strategies music therapists use to foster safety in therapy sessions. Experienced therapists emphasized the importance of attuning to the needs of children and adolescents who have experienced trauma. They also discussed the delicate balance between openness, flexibility, clear boundaries, and maintaining a caring, reliable presence. This balance helps create safe connections and meaningful engagement, which can foster a sense of security for both therapists and their young clients.

Christian Gold, Martin Voracek, and Tony Wigram conducted a meta-analysis on the impact of music therapy on children and adolescents with psychological disorders [13].

(1)The experimental procedure and methodologies

The meta-analysis included 11 studies, with a combined sample size of 188 participants. Effect sizes from each study were combined and weighted based on sample size, and their distribution was analyzed.

(2) Results and conclusions

After removing one extreme positive outlier, the meta-analysis revealed that music therapy has a medium to large positive effect (ES = 0.61) on clinically relevant outcomes, with the effect being highly statistically significant ($p < .001$) and homogeneous across studies. There was no evidence of publication bias. The analysis showed that the effects of music therapy were greater for behavioral and developmental disorders than for emotional disorders. Additionally, eclectic, psychodynamic, and humanistic approaches demonstrated greater effectiveness than behavioral models. Music therapy had a more substantial impact on behavioral and developmental outcomes compared to social skills and self-concept.

Both of these empirical studies demonstrate the effectiveness of music therapy in treating childhood trauma, supporting its role as a valuable therapeutic intervention.

4. Effects of visual art therapy on childhood trauma

Childhood trauma often leaves deep emotional and psychological wounds that may manifest in people's behavior, impact on society, and future development, according to Gerge and Pedersen, visual art therapy is a psychotherapeutic process that allows clients to experiment with a variety of visual art making techniques without verbalization [14]. Through this nonverbal self-expression, emotional regulation, and healing, children can be helped to process and recover from traumatic experiences. "The Virtual Art Therapy Clinic" suggests that "through virtual art therapy, people can become more creative and optimistic, manage stress and anxiety, and better communicate with others" [15]. Children who have been traumatized have a hard time expressing their pain through words, and this approach will help them relay it through non-verbal activities to help them recover better.

4.1. Therapeutic mechanisms

Art therapy uses creative processes to help children externalize internal emotions, providing a safe space for children to express feelings that cannot be expressed through words. The act of creating art is associated with lower levels of cortisol, a stress hormone [16]. AJ Webb showed that art therapy interventions have been shown to reduce cortisol levels and stress-related symptoms, promoting relaxation and emotional well-being [17]. The destressing effects of art therapy can be especially beneficial for those suffering from anxiety, depression, or trauma-related disorders. Through visual art therapy, children are able to explore their traumatic experiences from a distance, allowing for

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emotional expression as children can feel more secure in the therapeutic environment, which is also relevant to the therapist.

4.2. Limitations and future research directions

While the therapeutic potential of visual arts therapy is clear, a significant amount of further empirical research is needed to provide a stronger foundation for the effectiveness of visual arts therapy. Based on surveys and literature searches, most of the existing research is qualitative or theoretical with limited quantitative data, and most of the existing studies have not been designed to adequately evaluate this treatment modality to support the long-term impact of visual arts therapy interventions. Additionally, we know too little about the processes of linkage and meaning making in the visual arts for children's development, and individual differences lead to more uncertainty, so future studies should include larger sample sizes and control groups to provide more comprehensive data. Additionally, a more nuanced categorization of trauma types and treatment outcomes would be one effective way to do so.

A large amount of evidence suggests that visual art therapy is a promising treatment for children who have experienced trauma, providing a medium for children to communicate their emotions and experiences when unable to express their feelings through words. Existing research, supports the idea that art therapy can promote emotional healing, improve problem-solving skills, and foster better social interactions for traumatized children. However, there are still limitations and directions of research that need to be committed to, and as the field continues to evolve, it is very important that a more rigorous empirical study be conducted to complement the experiments that have utilized quantitative research methodologies in which visual art healing has been shown to be effective in improving trauma in children, in order to further validate that visual art therapy possesses even greater potential for treating trauma in children.

5. Conclusion

The aim of this review is to assess the effectiveness of arts therapies for children with childhood trauma, as documented in qualitative and quantitative studies published over the past two decades. Due to the inevitable scarcity in this emerging field, there is a limited number of studies, particularly quantitative ones, that examine the effectiveness of arts therapies for traumatized children. However, the available findings still suggest that arts therapies are effective tools for healing childhood trauma.

On a theoretical level, evidence from game therapy and music therapy supports that arts therapies are capable of improving children's brain functions, such as their ability to express and regulate emotions. Although there is no direct research on brain function improvement in traumatized children following arts therapies, it can be inferred that these therapies can benefit them as well. What's more, experts underline that arts therapies may help children recover from trauma more effectively, since non-verbal art activities provide a safe distance for children to explore their traumatic experiences without needing to consciously express their pain through words.

On an empirical level, findings show that arts therapies, particularly music therapy and visual art therapy, are used internationally as treatment regimens for children with childhood trauma. Qualitative research on this level suggests that therapy sessions conducted by art therapists help traumatized children become more adaptable to therapy, as they feel secure and relaxed in the presence of a caring and reliable therapist. Previous researchers have also concluded that exposure to traumatic experiences makes children highly susceptible to psychological disorders. In line with

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these conclusions, quantitative research which analyzes the effectiveness of game or music therapy for children with psychological disorders is highly relevant to this review. These studies indicate that arts therapies have clinically significant effects on children with behavioral, developmental, emotional or social disorders, regardless of the cause. As children have been shown to experience reductions in anxiety or depression, as well as improvements in social interactions and problem-solving skills following arts therapies, it can be inferred that arts therapies are highly likely to be effective for children with childhood trauma, particularly those suffering from negative psychological consequences.

Overall, these findings support the claim that arts therapies are effective in helping children heal from childhood trauma and that participating in therapy sessions conducted by art therapists may strengthen their ability to cope with various traumatic experiences.

The current review has several limitations. Primarily, due to the emergent nature of the field of arts therapies, only a small number of previous studies were included, as only a few quantitative studies met the inclusion criteria. Given that more empirical evidence is needed, this review provides only a broad, overarching view, which is largely based on theoretical potential. Therefore, more quantitative research needs to be conducted on arts therapies for traumatized children to further examine their effectiveness.

Additionally, several recommendations for further research directions can be made. First, quantitative studies are needed that include therapy sessions conducted with larger sample groups over significant periods of time. Such research could more thoroughly evaluate the effectiveness of arts therapies for traumatized children. Second, to carry out a meaningful meta-analysis, future studies are encouraged to employ a more specific categorization as well as to select widely used variables or indices. Moreover, as mentioned above, since childhood trauma survivors engage with music more frequently than control groups, there is a possibility that arts therapies may prove to be more therapeutic for traumatized children. Therefore, future studies can focus on whether arts therapies are more effective for children with childhood trauma compared to traditional therapeutic approaches.

In conclusion, it appears that arts therapies are effective treatment methods for children with childhood trauma. It is also clear that arts therapies deserve more empirical attention. We believe that more studies will emerge in the next few years that can help answer questions concerning their efficacy.

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