

ART THERAPY FOR EMOTIONAL REGULATION IN PRIMARY SCHOOL CHILDREN: AN EFFECTIVE APPROACH

Mohd Imran Yusoff¹
Nor Shafrin Ahmad^{2*}

¹Pusat Pengajian Ilmu Pendidikan, Universiti Sains Malaysia, Universiti Sains Malaysia, 11700, Gelugor, Pulau Pinang, Malaysia.

²Pusat Pengajian Ilmu Pendidikan, Universiti Sains Malaysia, Universiti Sains Malaysia,, 11700, Gelugor, Pulau Pinang, Malaysia.

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Abstract: *This paper presents a comprehensive study on the effectiveness of art therapy interventions in enhancing emotional regulation among primary school children, using the PRISMA framework to systematically review 26 relevant studies. Recognizing the crucial role of emotional regulation in a child's development, the research focuses on art therapy as a unique, non-verbal medium for young learners. Art therapy shows substantial power to help children express emotions and manage feelings according to research that follows PRISMA methodology. The study reveals that art therapy offers substantial advantages for educational environments as well as therapeutic settings when promoting complete emotional and psychological growth in primary school children. The study contributes to academic knowledge about child development and validates the educational value of implementing art therapy to provide balanced developmental experiences.*

Keywords: *Emotional Regulation, primary school, art therapy, anger*

Introduction

Academic and clinical circles have dedicated growing attention to emotional regulation in child development during the current period. The fundamental psychological and emotional development during primary school years determines lifelong well-being principles. Emotional regulation as an adaptive skill allows children to control and react to emotions which affects their academic results while creating positive social relationships and promoting mental health across the board (Harris et al., 2020). However, a significant number of primary school children encounter challenges in navigating their emotional landscapes. Factors such as academic stressors, familial dynamics, and peer interactions can contribute to emotional difficulties, potentially impeding their overall development. Recognizing the need for effective interventions, this article explores the transformative potential of art therapy (Topan & Sahin, 2019)(Adoni- Kroyanker et al., 2019; Dapic, 1996; Sterman et al., 2019; Zaiton, 2011) in enhancing emotional regulation among primary school children. Art therapy, a creative and expressive approach to mental health, has shown promise in fostering emotional resilience and well-being across diverse populations. Grounded in the belief that artistic expression can serve as a powerful medium for emotional exploration and communication, art therapy gives a unique avenue for children to articulate and understand their feelings. The non-verbal nature of art allows children to communicate emotions that may be challenging to express verbally, offering a nuanced perspective into their internal experiences. (Joe & Jin, 2022; Shin & Gonzalez, 2018; Su & Tsai, 2016)

This article aims to delve into the theoretical underpinnings concerning art therapy and its application in the context of primary school settings. This study reviews available research regarding the relationship that exists between art therapy as well as emotional regulation to explain how creative art channels help children understand and control their emotions (Edwards et al., 2009). Additionally, the article will review empirical studies and case examples that highlight the positive effect of art therapy interventions on primary school children, shedding light on the potential for widespread implementation within educational frameworks. As we navigate the intricate interplay between art, emotions, and child development (Hebi et al., 2022), this exploration contributes to the scholarly discussion concerning innovative therapeutic modalities but also offers practical insights for educators, mental health professionals, and policymakers invested in promoting the holistic well-being of primary school children. Through this comprehensive examination, we endeavor to advocate for incorporating art therapy interventions as a valuable as well as accessible tool for enhancing emotional regulation in the primary school context (Blanco et al., 2012; Dapic, 1996; Sterman et al., 2019).

Literature Review

In the dynamic landscape of primary education, fostering emotional well-being in children is recognized as a cornerstone for overall development. Emotional regulation, the capability to understand and manage one's emotions, is pivotal for academic success, social competence as well as mental health (Alrazain et al., 2018; Peabody, 2014; Stiles & Mermer-Welly, 1998). Primary school children often encounter a myriad of emotions as they navigate the challenges of academic expectations, peer relationships, and personal growth. Recognizing the significance of emotional regulation, this article explores the transformative potential of art therapy interventions as a promising avenue for enhancing emotional regulation in primary school children (Moula, 2020). Art therapy stands as a mental health intervention tool that utilises creative expressive elements regarding art creation to gain acceptance as an effective therapeutic approach. The approach suggests that artistic activities serve as an expressive method beyond words which lets people study their emotions while conveying their inner

feelings. Art therapy finds special significance when working with primary school children because their cognitive and verbal skills are not fully matured (Barry et al., 2022; Ceballos et al., 2020). This article's main purpose is to investigate the efficacy of art therapy interventions in promoting emotional regulation among primary school children. By delving into existing literature, empirical studies, and practical applications, we aim to give an overarching understanding of how art therapy can serve as a constructive and accessible means for children to navigate and regulate their emotions (Byford et al., 2015; Sideris, 2017; Smith, 2012).

Moreover, the article seeks to unravel the specific mechanisms through which art therapy facilitates emotional regulation. Whether through the tactile engagement with art materials, the symbolic representation of emotions in artwork, or the guided support of trained therapists, we aim to uncover the nuanced ways in which art therapy contributes to emotional well-being in young learners (Barry et al., 2022; Ceballos et al., 2020; Wilson & Joshi, 2018). Through research synthesis the article provides academic input to child development and psychology while revealing modern methods to teach emotional regulation at primary schools. The results from this study possess meaningful implications which extend academic knowledge to benefit both educators in schools and mental health professionals and those working on policy development to optimize well-being for primary school-aged children (Konz, 2006; Muñoz Briones, 2019; Parać et al., 2018).

Material and methods

Identification

Three essential steps were integrated into the systematic literature review (SLR) process to obtain a significant set of significant publications for this research. The researcher selected specific search terms based on their definitions obtained from thesauruses along with dictionaries and encyclopedias while also using prior research articles. A search string was created for the Scopus and Eric databases leading to the recognition of all relevant keywords (refer to Table 1). A systematic review gathered 157 publications from the databases as the initial step for this research project.

Table 1: The search string.

Scopus	ALL ((enhancing AND anger OR emotional AND regulation AND primary AND school AND children AND art AND therapy AND interventions)) AND (LIMIT-TO (PUBYEAR , 2023) OR LIMIT-TO (PUBYEAR , 2024)) AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (LANGUAGE , "English"))
Eric	enhancing AND anger OR emotional AND regulation AND primary AND school AND children AND art AND therapy AND interventions)
Wos	("art therapy" OR "play therapy") ("primary " OR "elementary" OR "middle") school (Topic) and 2023 (Publication Years) and Article (Document Types) as well as English (Languages)

Screening

The evaluation of potentially pertinent research materials involves scrutinizing their content for alignment with the predetermined research question(s) during the screening phase. Criteria related to content, often employed during this stage, involve the categorization of research items based on the theme of "Enhancing Emotional Regulation in Primary School Children through Art Therapy Interventions." This process also entails the elimination of duplicate papers from the compiled list of searched documents. The initial screening phase resulted in the exclusion of 4277 publications, while the subsequent phase assessed 48 papers based on distinct exclusion and inclusion criteria outlined in Table 2. The primary criterion for inclusion was the literature (research papers), being the principal source of practical recommendations. This encompassed reviews, meta-syntheses, meta-analyses, books, book series, chapters, and conference proceedings not considered in the latest study. Additionally, the review was limited to English publications, emphasizing that the strategy exclusively targeted the year 2023. Notably, three publications were dismissed to omit duplication criteria.

Table 2: The selection criterion is searching

Criterion	Inclusion	Exclusion
Language	English	Non-English
Time line	2023	< 2021
Literature type	Journal (Article)	Review, Book, Conference
Publication Stage	Final	In Press

Eligibility

The establishment of the final review sample occurs subsequent to the satisfaction of all inclusion as well as exclusion criteria. Research participants need to know the entire set of items analyzed in this sample since this knowledge helps them understand the fundamental research components of the study findings. According to the study structure the third tier contains 69 research items. A thorough examination of article titles combined with their substantive content takes place at this time to verify inclusion suitability as well as research objectives pertinence. Subsequently, 21 publications are eliminated, as their titles and abstracts lack significant correlation with the study's purpose, substantiated by empirical data. Ultimately, 48 papers remain available for assessment (refer to Figure 1).

Data Abstraction and Analysis

As one of the evaluative methodologies adopted in this investigation, an integrative analytical approach was implemented to systematically interrogate and synthesize diverse research paradigms, with a particular emphasis on quantitative methodologies. The principal objective of this rigorous analysis was to delineate salient themes and subthemes. The preliminary stage of thematic construction was anchored in the data collection process, as depicted in Figure 2. The researchers conducted a systematic review of 48 scholarly publications, meticulously extracting statements and content germane to the focal areas of the study. Following this, the authors conducted a thorough evaluation of significant studies pertaining to the usage of augmented reality in education. The investigation encompassed an analysis of the methodologies employed in these studies and an exploration of their research findings.

Subsequently, collaborative efforts having co-authors were initiated to construct overarching themes relying on the evidence in the research's context. A comprehensive log was systematically maintained throughout the data analysis process to record analytical procedures, interpretive insights, investigative queries, and other relevant considerations integral to the interpretation of the data. Consequently, the authors compared the results to detect flaws present in the theme development procedure. The authors conducted internal discussions to settle conceptual issues when agreement problems appeared during their work. The researchers refined the generated themes to achieve thematic coherency. The analysis's validity was established through the involvement of two experts where one focused on art therapy and the other focused on educational counseling during the selection process. The expert review phase verified the accuracy of subtheme clarification while evaluating their importance and appropriateness to improve domain validity.

Quality of assessment / Quality appraisal

Five experts conducted reviews of the 69 articles before validation. The research used the Critical Appraisal Skills (CAS) to analyze the data. A quality evaluation uses the CAS Program (CASP) checklist composed of eight evaluation indicators (refer to Table 4). The qualified experts with ten years of experience in educational online learning assessed the quality. The evaluative guideline uses the checklist to examine diverse types of evidence with critical evaluation of the study's quality (Long et al. 2020). The quality appraisal system operates with excellent documentation along with good listings and moderate ratings as its main categories. The evaluation of all articles assessed their quality by analyzing clear research objectives alongside appropriate methodological relevance. It also includes proper recruitment strategies, appropriate data collection methods, analysis procedures, a clear statement of results, as well as research value (Table 4). The review of 26 articles took place following quality assessment in Figure 1:

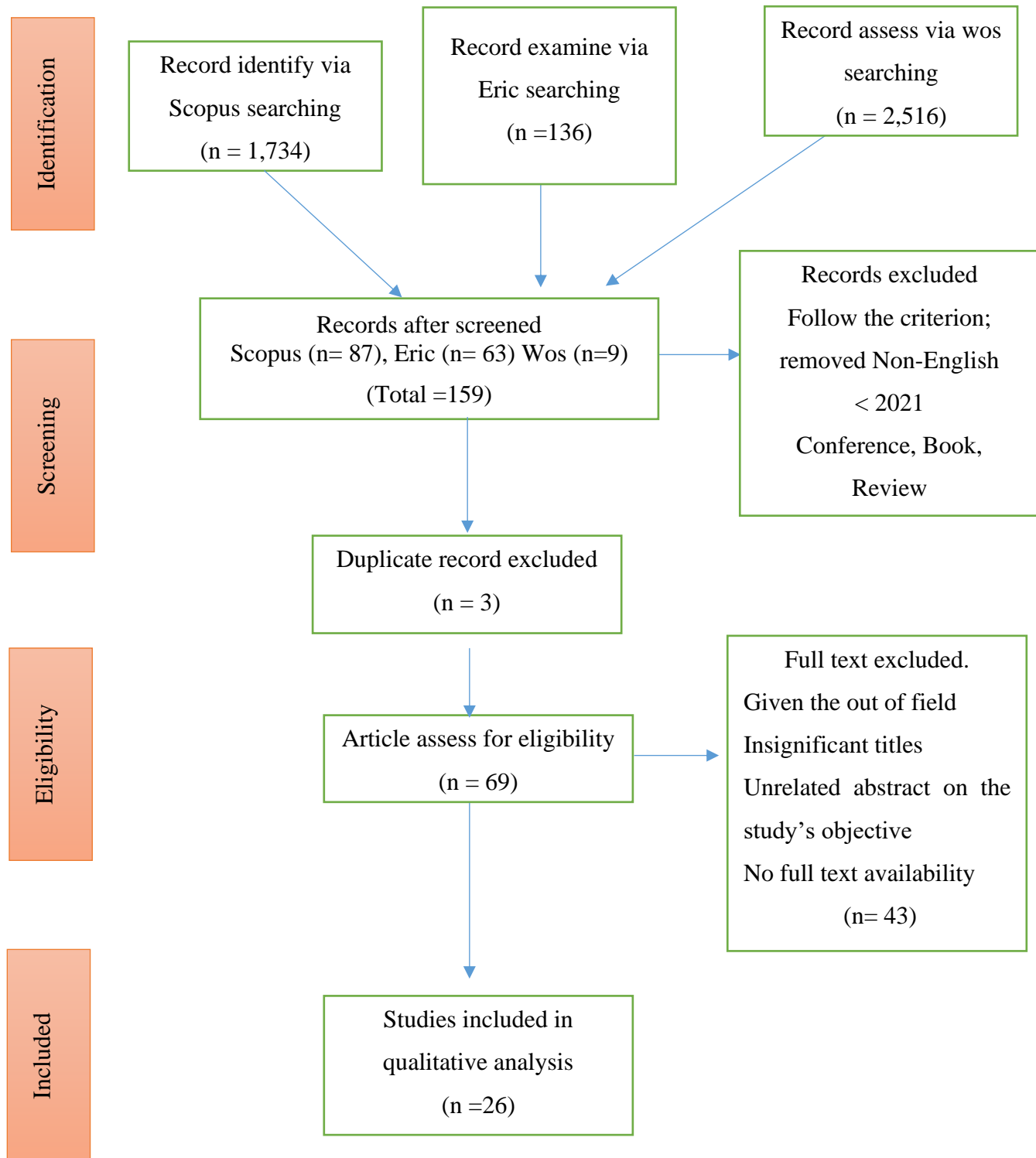


Figure 2. Flow diagram regarding the proposed searching study

Result and Finding

Based on the analysis conducted using the PRISMA framework, three main themes were explored to feed in a variety of findings based on the filtered articles. Themes 1) Broad-Spectrum Applications and Comparative Studies in Art Therapy, 2) Clinical Practice and Client Experiences in Art Therapy and 3) Foundations and Perspectives in Art Therapy

Theme 1: Broad-Spectrum Applications and Comparative Studies in Art Therapy

For this theme, 15 articles were identified to be compiled together in this theme. The following table lists the articles that have been screened:

Author	Title	Methodology	Contribution
(Palade & Pascal, 2023)	Reducing Bullying through Empathy Training: The Effect of Teacher's Passive Presence	Tested a 5-day empathy training's impact on bullying conducted among third graders using a 3 × 3 mixed design with pre-test, post-test as well as 3-week follow-up evaluations.	Revealed teacher presence during empathy training significantly reduced verbal bullying, indicating potential for long-term effects. However, no development regarding physical bullying behaviors was indicated.
(Choi et al., 2023)	Analysis of the Status and Future Direction for Digital Therapeutics in Children and Adolescent Psychiatry	This study analyzes development trends as well as application status concerning digital therapeutics in child and adolescent psychiatry, focusing on AI, VR, games, and apps in Korea and internationally.	Highlights digital therapeutics' potential in child psychiatry, discusses limitations, and suggests future directions, aiming to establish effective application measures and assess utility and scope in healthcare.
(Barman & Jena, 2023)	Usefulness of interactive video-based instruction on learning performance in relation to cognitive development of children with moderate intellectual disability	Assessed the effect of Interactive Video-Based Instruction (IVBI) on 95 children with moderate intellectual disability located in Guwahati, India, focusing on academic performance and cognitive development.	Demonstrated that IVBI, especially with comprehensive video-based instruction, significantly improves academic

Author	Title	Methodology	Contribution
			performance and understanding among children having moderate intellectual disabilities in experimental settings.
(Pingle & Ragha, 2023)	An in-depth analysis of music structure and its effects on human body for music therapy	Explores music therapy's impact on mental health, comparing classical and Western music frequencies, studying Indian Ragas' structure, and their physiological effects, with AI used for patient recommendations.	Reveals how different music types, including ragas, influence emotions and metabolic syndrome, enhancing understanding of music therapy's effectiveness for various health conditions, and highlights AI's potential in personalized therapy.
(Peker & Cengiz, 2023)	Academic Monitoring and Support from Teachers and School Satisfaction: The Sequential Mediation Effect of Hope and Academic Grit	Explored how hope as well as academic grit mediate the impact of perceived teacher support on school satisfaction among 720 Turkish secondary students using scales and a bootstrapping-based sequential mediation model.	Unveiled that both hope as well as academic grit are key mediators in the correlation between students' perceived teacher support and school satisfaction, offering insights to enhance middle school students' satisfaction.
(Hu, 2023)	Examining the effects of teacher self-compassion, emotion regulation, and emotional labor strategies as predictors of teacher resilience in EFL context	Used CFA and SEM on data from 711 Chinese EFL teachers to analyze how teacher self-compassion, emotion regulation, as well as emotional labor strategies affect teacher resilience.	Reveals the positive impact of self-compassion as well as emotional labor strategies on teacher resilience and the indirect role of emotion regulation, guiding

Author	Title	Methodology	Contribution
			interventions to improve teacher resilience in the EFL context.
(Peribañez et al., 2023)	An Experimental Methodology for Introducing Educational Robotics and Storytelling in Therapeutical Activities for Children with Neurodevelopmental Disorders	Presents an experimental methodology combining educational robotics, gamification, and storytelling in therapy for children having NDD, using a pilot study with Ozobot to evaluate effectiveness and engagement.	Offers a framework bridging therapists' and engineers' expertise in NDD therapy, showing positive effects on children's attention, social skills, and frustration tolerance, guiding future therapeutic robotics implementations.
(Luo et al., 2023)	Yoga and music intervention reduces inattention, hyperactivity/impulsivity, and oppositional defiant disorder in children's consumer with comorbid ADHD and ODD	Randomized controlled trial testing 16-week yoga as well as music interventions with regard to 60 children having ADHD as well as ODD, using MTA SNAP-IV for evaluating attention, hyperactivity/impulsivity, and ODD behaviors.	Demonstrates the superior effectiveness of integrated yoga and music interventions in reducing ADHD as well as ODD symptoms in children, suggesting a viable adjunctive treatment approach for these disorders.
(Schwarzer et al., 2023)	The relationship between global distress, mentalizing and well-being in a German teacher sample	Surveyed 215 teachers using questionnaires on stress, psychological symptoms, mentalizing capacities, as well as well-being; utilized structural equation modeling to assess mediation effects of mentalizing on well-being.	Reveals mentalizing as a protective factor against stress and psychological symptoms in teachers, enhancing well-being and providing a basis for psychological interventions focused on

Author	Title	Methodology	Contribution
			developing mentalizing capacities.
(Green & Rizwan, 2023)	Art-of-Living Intervention Imparted Through a Blended Learning Approach to Nurture Positivity Among Pakistan's University Students During COVID-19: A Growth Curve Analysis	Utilized blended learning for art-of-living training among 243 Pakistani university students amidst COVID-19, with a control and experimental group.	Demonstrated enhanced positivity and components of art-of-living in the experimental group, highlighting the intervention's effectiveness in increasing well-being.
(Moon & Ke, 2023)	Effects of Adaptive Prompts in Virtual Reality-Based Social Skills Training for Children with Autism	An experimental study which examined adaptive prompts during VR-based social skills training concerning autistic children was conducted through single case assessment of four subjects with mixed data collection.	Showed that adaptive VR prompts improve social skills in autistic children, offering design implications for future VR-based social skills training.
(Varella, 2023)	Nocturnal selective pressures on the evolution of human musicality as a missing piece of the adaptationist puzzle	Proposed a theory linking nocturnal activities to the evolution with respect to human musicality as well as performing arts.	Suggested that nocturnal activities influenced the development of musicality, providing a comprehensive adaptationist perspective on human music and performance.
(Wang et al., 2023)	Utilizing virtual reality to assist social competence education and social support for children from under-represented backgrounds	Implemented VR-assisted social competence education in two rural Chinese schools, comparing it with Lego-based and traditional learning methods.	Found VR education to significantly enhance social competence and support, suggesting its potential to reduce educational inequalities.

Author	Title	Methodology	Contribution
(Özbal & Gönen, 2023)	An Experimental Study of the Development of Empathy and Prosocial Behavior among Preschool Children	Executed an empathy training program with 39 preschool children, measuring empathy and prosocial behaviors through observation and scales.	Improved empathic and prosocial behaviors in trained children, advocating for systematic empathy and prosocial behavior training in early education.
(Dehghani et al., 2023)	Neural modulation enhancement using connectivity-based EEG neurofeedback with simultaneous fMRI for emotion regulation	Compared connectivity-based EEG neurofeedback having traditional methods with regard to emotion regulation, using fMRI and psychometric evaluations.	Demonstrated the superiority concerning connectivity-based neurofeedback in enhancing positive emotion regulation, offering an alternative therapy for mental disorders.

Theme 2: Clinical Practice and Client Experiences in Art Therapy

For this theme, 8 articles are identified to be compiled together in this theme. The following table lists the articles that have been screened:

Theme 3: Foundations and Perspectives in Art Therapy

Author	Title	Methodology	Contribution
(Amaral et al., 2024)	Helping families help themselves: The (Un)intended impacts of a digital parenting program	Evaluated a digital stress management as well as parenting intervention's impact on caregivers located in El Salvador.	Found mixed effects by caregiver's sex, highlighting that digital interventions need customization for effectiveness.
(De Palma et al., 2023)	The relationship between parental mental health, reflective functioning coparenting and social emotional development in 0-3 year old children	Surveyed 350 parents to examine the correlation that exists between reflective functioning, parental mental health, coparenting, as well as child development.	Found coparenting and reflective functioning significantly predict child development, providing insights for parenting interventions.
(Eschenauer et al., 2023)	Performing for Better	Studied the impact of performative theatre	Showed improvements regarding emotional skills,

	Communication: Creativity, Cognitive-Emotional Skills and Embodied Language in Primary Schools	on emotional skills, creativity, as well as executive functions in EFL students.	oral communication, as well as creativity, especially in students having neurodevelopmental disorders.
(Stodden et al., 2023)	Holistic Functioning from a Developmental Perspective: A New Synthesis with a Focus on a Multi-tiered System Support Structure	Proposed a conceptual framework integrating multiple research domains for holistic child and adolescent development.	Suggested a comprehensive approach to promote health and well-being, addressing the need for interdisciplinary research.
(Gleeson et al., 2023)	Moderated Online Social Therapy for Carers of Early Psychosis Clients in Real-World Settings: Cluster Randomized Controlled Trial	Cluster randomized trial to assess a web-based intervention for carers of youth with early psychosis.	Highlighted mixed results in stress reduction, suggesting further design improvements for digital interventions.
(Hogan et al., 2023)	Participation in Intensive Orchestral Music Training Does Not Cause Gains in Executive Functioning, Self-Perception, or Attitudes Toward School in Young Children	Experimental study on the effects of orchestral music training concerning young children's executive functioning and self-perception.	Reported no significant effects, emphasizing the need for intrinsic valuation of music education over extramusical outcomes.
(Rolli, 2023)	Integrating EMDR Standard Treatment Protocol into Child Psychotherapy at a Primary School with a 5-year-old Boy Who Suffered Complex Trauma: A Single Case Study	Case study on incorporating EMDR therapy into child psychotherapy for a young trauma patient in a school setting.	Showed promising results in treating PTSD, advocating for specialized training in complex trauma for school counsellors.
(Yue et al., 2023)	The impact of Chinese calligraphy practice on athletes' self-control	Examined Chinese calligraphy practice's impact on athletes' self-control and emotional regulation.	Revealed improvements in self-control and positive emotion, proposing calligraphy as a psychological training tool in sports.

For this theme, 4 articles are identified to be compiled together in this theme. The following table lists the articles that have been screened:

Author	Title	Methodology	Contribution
(Bosgraaf et al., 2023)	Measurement and development of art therapeutic actions in the treatment of children and adolescents with psychosocial problems	Developed a checklist to assess therapeutic actions in line with the ArAT program using desk research, interviews, and group meetings.	Defined therapeutic actions in ArAT and created a reliable measurement instrument, enhancing understanding of ArAT's clinical application.
(Mercader-Rubio et al., 2023)	Intrinsic Motivation: Knowledge, Achievement, and Experimentation in Sports Science Students—Relations with Emotional Intelligence	Analyzed the relationship between intrinsic motivation as well as emotional intelligence in sports students using the Sports Motivation Scale and TMMS-24.	Demonstrated a link between emotional intelligence dimensions and intrinsic motivation, highlighting its importance in sports motivation.
(Ren et al., 2024)	Development of a theory-based family resilience intervention program for parents of children with chronic diseases: A Delphi study	Developed a family resilience intervention program using a scoping review and Delphi survey with experts.	Contribution: Created a comprehensive intervention program to enhance resilience in families of children having chronic diseases, suggesting its practical utility.
(Bedregal et al., 2023)	Risk factors associated with higher scores in internalizing and externalizing behaviors in Chilean preschoolers	Assessed behavioral disorders with regard to preschoolers as well as their sociodemographic associations using the Child Behavior Checklist.	Contribution: Identified key factors associated with behavioral disorders in young children, providing insights for early detection and intervention strategies.

Discussion and Conclusion

In theme 1, The recent array of studies in child and adolescent development and therapy present diverse methodologies and significant contributions to the field. Palade & Pascal (2023) demonstrated the efficacy of empathy training in minimizing verbal bullying among third graders, emphasizing the role of teacher presence. Choi et al. (2023) analyzed digital therapeutics in child psychiatry, highlighting its potential and suggesting future directions. Barman & Jena (2023) showed that IVBI significantly improves learning in children with moderate intellectual disability. Pingle & Ragha (2023) explored the impact of music therapy, revealing how various music types affect emotions and metabolic syndrome. The study conducted by Peker & Cengiz (2023) showed that hope as well as academic grit function as

mediators between teacher support perception and student satisfaction with school. Teacher resilience receives beneficial influence from both self-compassion and emotional labor strategies according to Hu (2023). Peribañez et al. (2023) developed an experimental model to use educational robotics for therapeutic treatment of children with neurodevelopmental disorders. Luo et al. (2023) evidenced the effectiveness of yoga as well as music interventions in reducing ADHD and ODD symptoms. Schwarzer et al. (2023) indicated that mentalizing serves as a protective factor against stress in teachers. Green & Rizwan (2023) reported the success concerning an art-of-living intervention in enhancing positivity among university students. Moon & Ke (2023) demonstrated improvements in social skills in autistic children through adaptive prompts with regard to VR-based training. Varella (2023) proposed a novel theory on the evolution of human musicality linked to nocturnal activities. Wang et al. (2023) found VR-assisted education to enhance social competence, suggesting its role in reducing educational inequalities. Özbal & Gönen (2023) reported enhanced empathic as well as prosocial behaviors in preschool children following an empathy training program. Finally, Dehghani et al. (2023) showcased the superiority of connectivity-based EEG neurofeedback in emotion regulation. These studies collectively advance our understanding of therapeutic, educational, and psychological interventions, offering new perspectives and potential applications in child and adolescent development.



Figure 3: Art therapy using in context of robotics for special needs children

Sources: Peribañez et al. (2023)

In theme 2, recent studies in developmental and educational psychology have provided significant insights into various interventions and their impacts. Amaral et al. (2024) evaluated a digital parenting program in El Salvador, highlighting the need for gender-specific customization due to differing impacts on male and female caregivers. De Palma et al. (2023) explored the interplay between reflective functioning, parental mental health, coparenting as well as child development, finding significant implications for parenting strategies. Eschenauer et al. (2023) demonstrated how performative theatre enhances creativity and emotional skills in students, particularly aiding those with neurodevelopmental disorders. Stodden et al. (2023) proposed a holistic developmental framework, stressing the importance of interdisciplinary approaches. Gleeson et al. (2023) assessed a web-based therapy concerning carers of early psychosis clients, indicating mixed results in stress reduction and the necessity for improved digital intervention designs. Hogan et al. (2023) reported no significant benefits from orchestral music training on children's executive functioning, advocating for the intrinsic value of music education. Rolli (2023) successfully integrated EMDR therapy into child psychotherapy for trauma treatment, underscoring the need for specialized training in complex trauma. Lastly, Yue et al. (2023) revealed the positive influences of Chinese calligraphy practice with regard to athletes' self-control and emotional regulation, suggesting its potential as a psychological

training tool. These studies collectively advance the understanding of therapeutic and educational practices, emphasizing tailored approaches and interdisciplinary research.

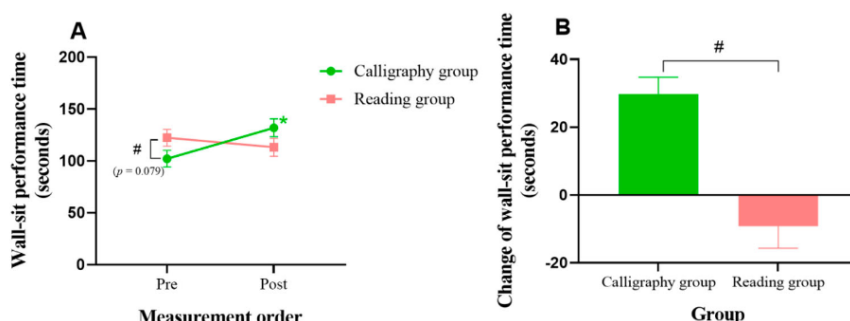


Figure 4: Impact using Chinese Calligraphy vs Reading Group

Sources: Yue et al. (2023)

In Theme 3, In recent research, Bosgraaf et al. (2023) developed a checklist for assessing therapeutic actions regarding the Affect regulating Arts Therapies (ArAT) program for adolescents as well as children with psychosocial issues, thereby enhancing ArAT's clinical application. Mercader-Rubio et al. (2023) studied intrinsic motivation together having emotional intelligence in sports science students and discovered substantial correlations for sports motivation success. Ren et al. (2024) developed a theory-based family resilience intervention program concerning parents of children having chronic diseases through a Delphi study for constructing an extensive program that builds family resilience. Finally, Bedregal et al. (2023) assessed behavioral disorders in Chilean preschoolers and their sociodemographic associations, identifying key factors associated with these disorders, which is crucial for early detection and intervention strategies. These studies collectively contribute to a deeper understanding and practical advancement in the fields of art therapy, sports psychology, family health, and child behavioral studies.

Future art therapy research should focus on creating personalized, context-specific interventions that integrate traditional methods with technological advancements. This includes evaluating the efficacy of diverse approaches like digital therapeutics, music therapy, and yoga in various therapeutic settings. Research should also aim to establish standardized measures and outcomes to ensure treatment integrity. Emphasizing interdisciplinary collaboration is crucial, especially in exploring the broader application of art therapy in areas like sports, family dynamics, and public health. The goal is to develop holistic, effective therapeutic interventions that are adaptable to different socio-demographic backgrounds and needs.

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