JOURNAL OF EARLY CHILDHOOD EDUCATION
2026, VOL. 20, NO. 2, 340-350
e-ISSN (Online Media): 2503-0566
P-ISSN (Print Media): 1693-1602
http://journal.unj.ac.id/unj/index.php/jpud

Emotion Regulation of a Child with Gross Motor Impairment During a CANA-Based Intervention: An Exploratory A1–B–A2 Single-Case Study

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ABSTRACT
Children with physical-motor impairments are at greater risk of difficulties in emotion regulation, yet intervention evidence for this group is limited. This exploratory single-case study examined the emotion regulation of one 9-year-old boy with a gross motor impairment (Grade 2 of primary school; slightly above the conventional early childhood age range) during the CANA for Kids module, based on the Collaborative Activation for Nurturing Awareness (CANA) method. An A1–B–A2 design was used over 16 sessions of 45 minutes: four baseline sessions, eight intervention sessions with parental support and motor accommodations, and four sessions after withdrawal of the intervention. Emotion regulation was rated in every session with the 24-item Emotion Regulation Checklist (ERC) by the researcher, who also delivered the intervention. Scores were computed following the NovoPsych scoring guide, and the Adaptive Emotion Regulation score (higher = better regulation) was analyzed visually. Mean Adaptive scores were 63.50 in A1, 63.63 in B, and 63.25 in A2. The trend was decreasing in A1, almost flat to slightly decreasing in B, and increasing in A2; in all phases 100% of data points fell within the 15% stability range, although scores fluctuated between sessions; and 100% of B data overlapped with the A1 stability range (75.0% of A2 data overlapped with B). These data do not show that the module changed emotion regulation. They are preliminary and hypothesis-generating; replication with longer baselines, independent raters, and younger children is needed.

HISTORY Article
Submission 2026-11-02
Received 2026-11-15
Accepted 2026-11-27

KEYWORDS
Emotion regulation; single-case design; physical-motor impairment; inclusive education; CANA

DOI. 10.21009/jpud.v20i2.73638

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1. Introduction

The development of children with physical-motor impairments and neurodevelopmental disorders is an important focus of research in developmental psychology, inclusive education, and pediatric rehabilitation worldwide (Carcelén-Fraile et al., 2025; Hansen et al., 2025). Motor limitations affect not only a child's ability to carry out movement activities but may also influence psychological condition and social-emotional development (Downs et al., 2018; Green & Payne, 2018). Limited mobility and fewer opportunities to explore the surrounding environment can reduce a child's opportunities for social interaction. This may increase the risk of social withdrawal and of mental health difficulties such as anxiety, depression, and environment-related stress (Noyek et al., 2022). A child's development should therefore not be viewed only in terms of biological condition or physical ability. Emotional and self-awareness aspects also deserve attention and can serve as a basis for designing interventions that support holistic growth and development (Novianti, 2026a).

More specifically, children with physical-motor impairments, including those with cerebral palsy (CP), developmental coordination disorder (DCD), spinal muscular atrophy (SMA), and severe motor and communication impairments (SMCI), face complex emotional challenges (Gao et al., 2025; Morcov et al., 2021). In children with CP and DCD, difficulty recognizing and interpreting bodily signals (proprioception) is often related to poorer emotion understanding and greater emotional instability (Riquelme et al., 2024). Children with SMCI may have considerable difficulty communicating feelings or inner states, whether through speech or commonly used body movements, so

their emotional expressions risk being overlooked or misread by the people around them (Noyek et al., 2022). High parenting stress and predominantly negative social interactions may further contribute to chronic emotion dysregulation in children (Hansen et al., 2025).

Emotion regulation is widely treated as a developmental task that begins in the early years and shapes children's participation in learning and peer relationships. Early childhood is conventionally defined as birth to age 8 (National Association for the Education of Young Children [NAEYC], 2009), and Indonesian national regulation defines early childhood education as serving children aged 0–6 years (Republic of Indonesia, 2003). The participant in this study was a 9-year-old boy in Grade 2 of primary school (see Method), which is slightly above both limits. The study is therefore not presented as an early childhood sample. It is an exploratory case at the boundary between early childhood and the early primary years, a period in which children with motor impairments may be educated in inclusive or specialized settings. Its contribution is therefore limited and descriptive. It offers a documented single case in which an awareness-based, inside-out module (CANA for Kids) was delivered to a child with a gross motor impairment, and in which observer-rated adaptive emotion regulation showed no clear change across phases. This neither confirms nor refutes the assumption that ordering self-awareness precedes behavioral change; it records one condition (eight sessions, one 9-year-old, parental support, a single observer who was also the interventionist) under which no such change was visible. Whether a comparable module is relevant to early childhood education is a hypothesis for future research with younger children, not a finding of this study.

Emotion regulation is an important aspect that helps children recognize, understand, accept, and manage emotional responses appropriately and adaptively. This ability is needed so that children can achieve their goals and adjust to their social environment (Gratz & Roemer, 2004; Gross, 1998). According to the Process Model of Emotion Regulation developed by Gross (2014), emotion management occurs dynamically through five stages: situation selection, situation modification, attentional deployment, cognitive change, and response modulation. Good emotion regulation is known to have a positive influence on executive function, on the development of cognition related to bodily experience (embodied cognition), and on individuals' ability to process internal bodily signals (Antunes et al., 2023; Jasni et al., 2025). Conversely, an inability to manage emotions can disrupt cognitive function, lead to behavioral problems, and contribute to the development of transdiagnostic psychopathology. Such conditions can ultimately hinder children's engagement in education and in social life (Cai & Uljarević, 2021; Holmqvist Larsson et al., 2026).

A number of earlier studies have examined approaches to improving emotion regulation and social-emotional skills in children. A neuroscience study by Izadi-Najafabadi et al. (2022) showed that a cognitive-motor intervention, Cognitive Orientation to daily Occupational Performance (CO-OP), can change functional brain connectivity in neural networks involved in attention and emotion, namely the Default Mode Network and the Dorsal Attention Network. Meta-analytic reviews by Moltrecht et al. (2021) and Rowland et al. (2023) reported that psychological interventions based on Cognitive Behavioral Therapy (CBT) and Mindfulness-Based Interventions (MBI) can significantly reduce anxiety, increase emotional awareness, and reduce emotional difficulties in children and youth. In addition, interventions focused on emotional parenting have been shown to strengthen co-regulation capacity between parents and children (Severinsen et al., 2025; Zahl-Olsen et al., 2023). An integrated emotional competence approach such as EMO-T has also shown positive results in children with a neurodevelopmental syndrome (Famelart et al., 2022).

Previous studies suggest that several approaches can support emotion regulation in children, but evidence for children with physical-motor impairments in inclusive early-years education remains limited. Interventions reported for this population have often centered on motor-based rehabilitation or externally directed behavioral approaches, with outcomes mostly defined in physical or behavioral terms (Gao et al., 2025; Oliveira et al., 2025), while children's inner experience and internal awareness receive less direct attention (Novianti et al., 2026). Methodologically, much of the available evidence relies on parent or caregiver report (proxy report), which depends on the informant's perspective and may not capture the child's own experience (Hansen et al., 2025; Lancastle et al., 2024). This gap is described from the literature cited here. This study did not conduct a systematic review or a comparison of CANA with other approaches, and it does not claim that most earlier interventions are mechanistic.

To address this gap, this study examines the CANA method (Collaborative Activation for Nurturing Awareness) formulated by Novianti et al. (2026) on the basis of the Neurohumanistic Paradigm. CANA proposes a shift from externally directed intervention toward internal transformation (inside-out), viewing behavioral change as arising from the ordering of inner self-awareness. It describes a transformation pathway through six dynamic levels of awareness: Positive Self-Awareness, Emotional Releasing, Mindset Reframe, Mental State Stabilization, Collaborative Action, and Nurturing Growth. These levels are operationalized as six practical steps that correspond one-to-one, in the same order: *Sadar* (Aware), *Lepas* (Release), *Paham* (Understand), *Tenang* (Calm), *Bertindak* (Act), and *Tumbuh* (Grow). The rationale draws on the principle of neuroplasticity, the psychology of emotion, and humanistic values; this is a theoretical rationale only, and the present study does not measure neuroplastic change. CANA positions the child not as an object of correction but as an aware subject within a collaborative ecosystem that includes parents, teachers, therapists, and the inclusive environment (Novianti, 2025, 2026d).

This study does not claim novelty on the basis of a first application. To our knowledge, CANA for Kids has not been reported in a single-case format with a child with a physical-motor impairment, but no systematic literature search was conducted to establish this. The study also does not measure neuroplasticity or psychological well-being.

Its research question is: how did the Emotion Regulation Checklist (ERC) scores of one child with gross motor impairment change across a baseline phase (A1), a CANA for Kids intervention phase (B), and a second baseline phase after withdrawal (A2), and what can these data support about the role of the intervention? The aim is to describe these changes and to judge cautiously what the data can and cannot support.

2. Method

This study used a descriptive quantitative approach with the Single Subject Research (SSR) method. This approach is used to describe the condition of the subject on the basis of numerical data analyzed descriptively, such as scores, percentages, means, or categories (Sugiyono, 2024; Mursa et al., 2025). The data were not analyzed to test hypotheses about a population but to show how the subject's emotion regulation ability changed over time. The SSR method observes behavioral change in one subject through repeated measurement in baseline and intervention phases (Sunanto et al., 2005). Repeated measurement allows the subject's behavior to be observed continuously, so that changes from one phase to the next can be compared. In this method the subject serves as his own comparison; that is, emotion regulation ability during the intervention is compared with the same subject's ability during baseline. The design used was A–B–A, consisting of a first baseline (A1), the intervention (B), and a second baseline (A2) (Cahyani et al., 2026). The first baseline (A1) gives a picture of the subject's emotion regulation ability before the intervention. The intervention phase (B) is the phase in which the subject takes part in the intervention based on the CANA method through the CANA for Kids Module. The second baseline (A2) was carried out after the intervention was stopped to see the changes that occurred after the intervention.

The research subject was a 9-year-old boy attending Grade II of primary school who has a physical-motor impairment in gross motor function. The impairment was identified by the school and professionals, but no formal diagnostic or assessment document was available to the researchers, so the type and severity of the impairment are not documented in this article. Gross motor limitations may also influence how some ERC behaviors (for example, energetic play, impulsivity, or approaching peers) are expressed or observed, which may affect item scores; this was not examined in this study. The subject was selected through purposive sampling on the basis of initial observations that showed difficulty in emotion regulation, especially in managing mood and adjusting emotional responses to the situation. The subject has verbal communication ability and is able to understand instructions but still needs guidance and reminders in managing emotional responses. During the study, the subject received support in the form of simple instructions, repetition of information, prompting questions, reminders, positive reinforcement, and facilitator assistance according to his needs.

The study consisted of 16 sessions: 4 sessions of the first baseline (A1), 8 sessions of intervention using the CANA for Kids Module (B), and 4 sessions of the second baseline (A2). The study was carried out at Yayasan Lentera Sanggar Rainbow, Malang City, with a duration of 45 minutes per session. Sessions in all three phases (A1, B, and A2) were held every day at the same time to maintain consistency of observation. Phase A2 began four days after the last intervention session (session 12) and consisted of four daily sessions (sessions 13–16), as a measurement after withdrawal of the intervention.

In phase A1, observation was carried out without intervention to obtain a picture of the subject's initial ability. Phase B was then carried out through the CANA for Kids intervention, while phase A2 was carried out without intervention to determine changes in emotion regulation ability after the intervention was stopped. All phases were carried out in the same observation environment using the Emotion Regulation Checklist (ERC), which consists of 24 items on a 1–4 rating scale. Measurement was done in every session, and the results were then analyzed visually through within-condition and between-condition analysis. The results of phase A2 are used to describe changes after withdrawal of the intervention within the observation period of the study and are not interpreted as evidence of long-term retention of ability.

Data Collection

Research data were collected through observation and documentation. Observation was carried out repeatedly in every study session across three phases: the initial baseline (A1), the intervention (B), and the final baseline (A2). The observation aimed to determine changes in the subject's emotion regulation ability during the series of study sessions. Observation used the Emotion Regulation Checklist (ERC), which consists of 24 items scored on a 1–4 scale. Each item was scored on the basis of the emotion regulation behaviors and responses the subject showed during the activities. The item scores of each session were then processed following the NovoPsych scoring guide to obtain the Emotion Regulation (ER), Emotional Lability/Negativity (L/N), and Adaptive Emotion Regulation scores for that session. Thus, 16 sets of scores were obtained from the 16 sessions, which were then presented as tables and a graph for analysis.

The assessment was carried out by the researcher, who also acted as the implementer of the CANA-based intervention. To maintain observation consistency, the researcher used the same ERC instrument and scoring guideline in all phases of the study. Recording was based on the subject's observable behavior during the activities, and scores were then recorded on the observation sheet according to the indicators in the instrument. Documentation, including photographs and video recordings of the sessions, was used as supporting data to complement notes on the implementation of activities and the observation process during the study. These

recordings document the sessions, but because no second rater scored them and inter-rater agreement was not assessed, they do not establish the reliability of the ERC scores.

This study used one rater, so no inter-rater agreement check was conducted. This condition is one of the limitations of the study because the researcher acted as both implementer of the intervention and scorer, so the possibility of subjectivity in the assessment could not be completely eliminated. Therefore, the observation results were interpreted on the basis of instrument scores and the observation notes obtained during the study.

Research Instrument

The instrument used in this study is the Emotion Regulation Checklist (ERC) developed by Shields and Cicchetti (1997). The instrument used is the English version obtained through NovoPsych and consists of 24 statements with four frequency categories: 1 (rarely or never), 2 (sometimes), 3 (often), and 4 (almost always). The ERC is used to observe behaviors related to emotional expression, emotional control, mood stability, and children's emotional responses.

The instrument was translated into Indonesian by the researcher and then consulted with the supervising lecturer to obtain input on clarity of language and suitability of the statements. This process was a translation of the instrument, not a cross-cultural adaptation that has undergone formal validity and reliability testing. The ERC was developed to measure emotion regulation in school-age children. The subject of this study was 9 years old, which is still within the age range for use of the ERC. However, the validity of the instrument specifically for children with physical-motor impairments was not tested in this study. Because the Indonesian version was not psychometrically tested, the meaning of score differences, especially small ones, cannot be assumed to be equivalent to that of the original ERC, and the scores are interpreted descriptively only.

The ERC has two dimensions: Emotion Regulation (ER) and Emotional Lability/Negativity (L/N). The ER dimension consists of eight items, namely numbers 1, 3, 7, 15, 16, 18, 21, and 23 (score range 8–32), while the L/N dimension consists of 15 items, namely numbers 2, 4, 5, 6, 8, 9, 10, 11, 13, 14, 17, 19, 20, 22, and 24 (score range 15–60). A higher score on ER indicates better emotion regulation ability, whereas a higher score on L/N indicates greater emotional instability. Following the NovoPsych scoring guide (NovoPsych, n.d.), items 16 and 18 (ER) and items 4, 5, 9, and 11 (L/N) are reverse-scored; these items were converted once in the scoring spreadsheet and were not reversed again. Item 12 was still observed and scored although it does not belong to either dimension (Shields & Cicchetti, 1997); it was not included in the ER, L/N, or Adaptive scores. The Adaptive Emotion Regulation score (range 23–92) is the sum of the ER score and the inverse of the L/N score, in which items 4, 5, 9, and 11 are not reversed and all other L/N items are reversed; a higher Adaptive score indicates better adaptive emotion regulation. The scoring key for all 24 items is given in Appendix A.

Data collection was carried out through direct observation in the initial baseline (A1), the intervention (B), and the final baseline (A2). The researcher acted as both observer and scorer on the basis of behavioral indicators on all 24 items. The score of each item was recorded according to the response order in the instrument. The item scores were then processed following the NovoPsych scoring guide to obtain the ER, L/N, and Adaptive scores for each observation session. The whole observation process was carried out by the same researcher using a consistent instrument and scoring procedure.

Intervention Procedure

The intervention was carried out using the CANA for Kids Module, based on the Neurohumanistic Paradigm (Novianti et al., 2026), over eight meetings in the intervention phase (B), namely sessions 5 to 12. Each meeting lasted approximately 45 minutes and involved the researcher and a parent as the subject's companion. Activities were adjusted to the needs and abilities of the 9-year-old subject, who has a physical-motor impairment.

The eight intervention meetings covered several materials arranged progressively. The first meeting addressed body awareness through recognizing body signals using a Body Map and the "Body Detective" game. The second meeting focused on recognizing body states through the "Body Light" concept (green, yellow, and red). The third meeting developed emotional awareness by introducing various kinds of feelings using emotion cards, stories, and an Emotion Mirror activity. The fourth meeting taught emotion acceptance through stories, the "Emotion House" game, and discussion of possible emotional responses. In the fifth meeting, the subject was guided to recognize and distinguish thoughts, feelings, and events through stories, thought cards, and worksheets. The sixth meeting focused on practicing pausing before responding through stories, role play, and practice of the STOP–LOOK–FEEL–CHOOSE sequence. The seventh meeting addressed awareness of one's own needs, both physical and emotional, through need cards, the "Needs Tree" game, and role play. The eighth meeting was an integration stage connecting awareness of body, emotion, thoughts, pause, and own needs through puzzle assembly, discussion, worksheets, and reflection.

During implementation, the researcher was responsible for guiding the activities, delivering the material, giving directions, and observing the subject's behavior. The parent accompanied the subject during the activities and gave help as needed. Activities were adjusted by considering the subject's motor abilities, especially in the use of learning media, completion of worksheets, and playing of games. Help was given so that the subject could follow the activities without reducing opportunities to respond independently.

To maintain consistency of implementation, each meeting referred to the objectives, materials, media, and activity stages stated in the CANA for Kids Module. Implementation fidelity was attended to through the match

between activities and the plan for each meeting, the subject's engagement, and the provision of assistance according to his needs. During the eight intervention sessions, the subject's emotion regulation ability continued to be measured with the ERC using the same observation and scoring procedures as in the initial baseline phase (A1). After all intervention was completed, observation continued in the final baseline phase (A2) without intervention.

Data Analysis

Data were analyzed descriptively and quantitatively using graphic analysis by comparing emotion regulation scores in phases A1, B, and A2, both within and between conditions (Sunanto et al., 2005). The Adaptive Emotion Regulation score of each session was the main score analyzed, with the ER and L/N scores reported as supporting information, and the scores were arranged according to session and phase order.

Within-condition analysis was carried out to see the pattern of score change in each phase and covered condition length, trend direction, stability, data path, level stability and range, and level change. Trend direction was determined with the split-middle method (White & Haring, 1980), that is, by dividing the data into two halves, determining the median session and median score of each half, drawing a line connecting them, and then shifting the line until the data above and below it are balanced. The direction of the line was then categorized as increasing, flat, or decreasing.

Data stability was calculated with a 15% criterion (Sunanto et al., 2005; Tawney & Gast, 1984). The mean level was obtained by dividing the sum of all scores by the number of sessions. The stability range was obtained by multiplying the mean level by 0.15, and the upper and lower limits were determined by adding this value to, and subtracting it from, the mean level (mean ± 15% of the mean). The stability percentage was calculated as the proportion of data within this range. Data were declared stable when the stability percentage reached 85% or more. This threshold was used because children's behavioral data tend to fluctuate, so a requirement of 100% was considered too strict; it is a convention of visual analysis and not evidence of statistical significance. In phase A1, which consists of four sessions, all data must fall within the stability range, whereas in phase B, which consists of eight sessions, one data point may still fall outside the range.

Within-condition level change was obtained as the difference between the first and last session scores in the same phase. A plus sign (+) indicates improving change, a minus sign (−) indicates worsening change, and an equals sign (=) indicates no change. Between-condition analysis was carried out by comparing consecutive phases and covered changes in trend direction, stability, level, and percentage of overlap. The percentage of overlap was calculated by comparing the number of phase B data points that fall within the upper and lower limits of phase A1 with the total number of phase B sessions. The smaller the percentage of overlap, the stronger the indication of an intervention effect on emotion regulation.

The results of this analysis are interpreted as descriptive indications of change, not as evidence of a functional relation, because the design contains a single A1–B–A2 series in one participant, the baseline consisted of only four sessions and showed a decreasing trend, and the phase means overlapped substantially. Therefore, changes in score, direction, and stability after the intervention can only be interpreted as descriptive variation across phases.

3. Results and Discussion

3.1. Results

This study used an A1–B–A2 single-case design: a first baseline condition (A1) of 4 sessions, an intervention condition (B) of 8 sessions, and a second baseline condition after withdrawal of the intervention (A2) of 4 sessions, for 16 measurement sessions in total. Sessions are numbered globally (1–16) throughout this article. In each session, the 24-item Emotion Regulation Checklist (ERC) was scored following the NovoPsych scoring guide, which yields three scores: Emotion Regulation (ER), Emotional Lability/Negativity (L/N), and Adaptive Emotion Regulation. The Adaptive score combines ER with the inverse of L/N according to the guide and was the main score analyzed visually; a higher Adaptive score indicates better adaptive emotion regulation. Item 12 was not included in the subscale or Adaptive scores. Items with reversed scoring were converted once in the scoring spreadsheet and were not reversed again. The scores of each session are shown in Table 1.

Table 1. ERC scores per session

Session	Phase	ER	L/N	Adaptive
1	A1 (Baseline)	16	26	73
2	A1 (Baseline)	16	30	63
3	A1 (Baseline)	16	34	61
4	A1 (Baseline)	15	35	57
5	B (CANA intervention)	21	29	71
6	B (CANA intervention)	20	33	60
7	B (CANA intervention)	15	35	61
8	B (CANA intervention)	18	29	68
9	B (CANA intervention)	21	33	63
10	B (CANA intervention)	20	25	64
11	B (CANA intervention)	18	28	63
12	B (CANA intervention)	16	36	59
13	A2 (Baseline 2, post-withdrawal)	14	30	69
14	A2 (Baseline 2, post-withdrawal)	13	36	54
15	A2 (Baseline 2, post-withdrawal)	24	27	70
16	A2 (Baseline 2, post-withdrawal)	17	42	60

Note. ER = Emotion Regulation (higher = better regulation); L/N = Emotional Lability/Negativity (higher = greater lability and negativity); Adaptive = Adaptive Emotion Regulation (higher = better regulation). Item 12 is not included in any of the three scores. A1 = sessions 1–4, B = sessions 5–12, A2 = sessions 13–16.

Figure 1 presents the Adaptive scores across the 16 sessions. In A1, scores declined from 73 to 57. In B, scores fluctuated between 59 and 71, and in A2 between 54 and 70. The split-middle trend lines indicate a decreasing trend in A1, a slightly decreasing (almost flat) trend in B, and an increasing trend in A2. The data therefore do not show a pattern of increase that continued consistently during the intervention.

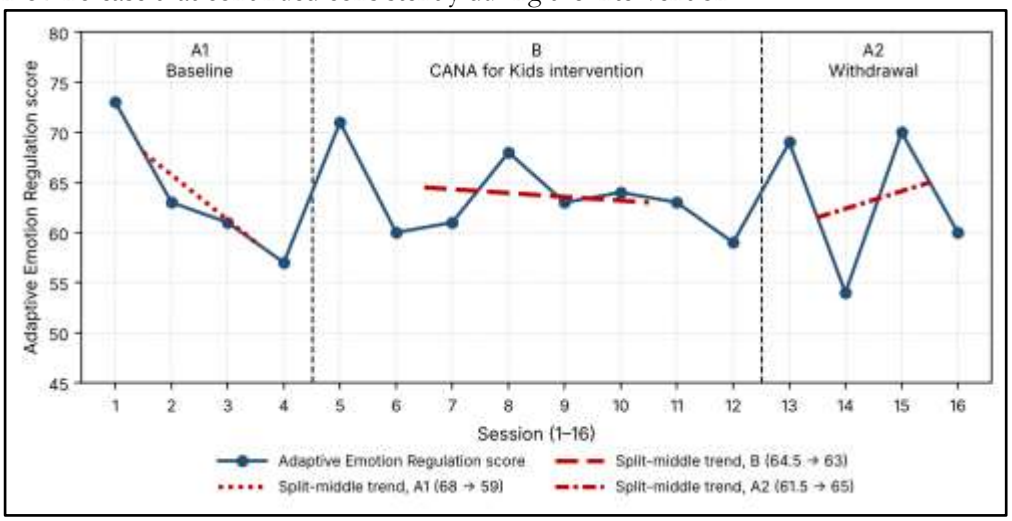

Figure 1. Single-case graph of Adaptive Emotion Regulation scores (A1–B–A2) with split-middle trend lines (y-axis starts at 45)

Table 2. Mean scores per phase

Indicator	A1	B	A2
Emotion Regulation (ER)	15.75	18.63	17.00
Emotional Lability/Negativity (L/N)	31.25	31.00	33.75
Adaptive Emotion Regulation	63.50	63.63	63.25

The mean Adaptive score was 63.50 in A1, 63.63 in B, and 63.25 in A2 (Table 2). The mean changed by only 0.13 points from A1 to B and decreased by 0.38 points from B to A2; these differences are small. The mean ER score was higher in B (18.63) than in A1 (15.75) and A2 (17.00), whereas the mean L/N score changed little from A1 to B (31.25 to 31.00) and was highest in A2 (33.75).

Within-condition visual analysis covers condition length, estimated trend direction, stability, data path, level, and level change (Sunanto et al., 2005, pp. 104–105). The data path is shown in Figure 1, and the other components for the Adaptive score are shown in Table 3.

Table 3. Within-condition visual analysis of the Adaptive score

Component	A1 (Baseline)	B (Intervention)	A2 (Baseline 2)
Condition length	4 sessions	8 sessions	4 sessions
Estimated trend (split-middle)	Decreasing	Decreasing, almost flat	Increasing
Score range	57–73	59–71	54–70
Mean level	63.50	63.63	63.25
Stability range (mean ± 15%)	53.98–73.03	54.08–73.17	53.76–72.74
Stability percentage	100% (4/4)	100% (8/8)	100% (4/4)
Level change (last − first)	−16	−12	−9

Note. Trend direction was estimated with the split-middle method. The stability range is the phase mean ± 15% of the mean, and the stability percentage is the proportion of data points within this range. Level change is the last score minus the first score of the phase.

Stability was assessed with the 15% criterion applied to the phase mean (see Data Analysis): the lower and upper limits were calculated as the mean ± 15% of the mean. All data points in A1, B, and A2 fell within their respective ranges, so the stability percentage was 100% in every phase (Table 3). A stability percentage shows that data points lie within the defined range; it does not mean that scores did not fluctuate or that the child's ability had improved. The 85% threshold used in this study is a convention of visual analysis and not evidence of statistical significance.

Within-condition level change was calculated as the last session score minus the first session score of the phase. In A1 it was 57 − 73 = −16; in B, 59 − 71 = −12; and in A2, 60 − 69 = −9. Because a higher Adaptive score indicates better adaptive emotion regulation, these negative changes mean that the final score of each phase was lower than its initial score.

Between-condition visual analysis covers the number of variables changed, the change in trend direction and its effect, the change in stability, the change in level, and the percentage of overlap (Sunanto et al., 2005, pp. 104–106). The results for the Adaptive score are shown in Table 4.

Table 4. Between-condition visual analysis of the Adaptive score

Component	A1 to B	B to A2
Number of variables changed	1	1
Change in trend direction	Decreasing → decreasing	Decreasing → increasing
Change in stability	100% → 100%	100% → 100%
Change in level between phases	71 − 57 = +14	69 − 59 = +10
Percentage of overlap	8/8 = 100%	3/4 = 75%

Note. Level change between phases is the first score of the later phase minus the last score of the earlier phase. Overlap is the percentage of data points in the later phase that fall within the stability range of the earlier phase.

From A1 to B, the first score of phase B (71) was 14 points higher than the last score of A1 (57). However, the trend direction remained decreasing and all B data points were within the stability range of A1, so overlap reached 100%. From B to A2, the first score of A2 (69) was 10 points higher than the last score of B (59). Three of the four A2 data points were within the stability range of B, so overlap was 75%. High overlap, especially between A1 and B, shows that the data of the two phases largely overlap. According to Sunanto et al. (2005, pp. 99–100), overlap makes it difficult to interpret an intervention effect, and level change must be read together with trend and stability.

4. Discussion

This study examined how the emotion regulation of one child with gross motor impairment, measured with the ERC and scored following the NovoPsych guide, changed across a baseline, a CANA for Kids intervention phase, and a second baseline. The main finding is that the Adaptive Emotion Regulation score did not show a strong and consistent increase during the intervention. The mean score changed only from 63.50 in A1 to 63.63 in B, a difference of 0.13 points, and was 63.25 in A2. Descriptively, the differences between phase means were small.

Trend analysis showed a decreasing direction in both A1 and B, although the decrease in B was gentler. Because a higher Adaptive score reflects better adaptive emotion regulation, a decreasing trend does not support an interpretation of improvement during the intervention. The results also show that stable data should not be equated with improved ability. All three phases had a stability percentage of 100% under the mean ± 15% range, but scores still changed from session to session. Because 15% of a mean of about 63 is roughly 9.5 points, the stability range is wide (about 19 points) relative to the observed score ranges of 12 to 16 points, so a stability percentage of 100% partly reflects the width of the criterion and should be read together with trend, level, and overlap.

The comparison of A1 and B produced a level change of +14 but an overlap of 100%. Although the score rose between the last baseline session and the first intervention session, all intervention scores stayed within the stability range of A1. This change at the transition reflects that the last A1 score (57) was the lowest baseline score, whereas the first B score (71) was close to the first A1 score (73); the phase means differed by only 0.13 points. A rise at one transition point is therefore not enough to conclude that the intervention produced a clear change. Sunanto et al. (2005, pp. 99–100) emphasize that interpretation of an intervention effect should consider stability, level change, and overlap together.

In phase A2, the CANA intervention had been stopped. The split-middle trend changed from decreasing in B to increasing in A2. However, A2 scores fluctuated and their mean was slightly lower than that of phase B. The overlap of 75% between B and A2 also shows that most A2 scores were still within the stability range of phase B. Because the three phase means were almost identical (63.50, 63.63, and 63.25), the A–B–A pattern does not allow an inference about an intervention effect, and A2 does not provide sufficient evidence that changes in emotion regulation persisted consistently after the intervention was stopped. In addition, A2 consisted of four sessions held a few days after the intervention ended; it is a measurement after withdrawal within the study period, not a delayed follow-up, and it cannot show long-term retention.

Overall, the visual analysis shows descriptive variation across phases, but there is no strong and consistent visual evidence that the CANA-based intervention increased adaptive emotion regulation in this subject. This conclusion is limited to the subject and observation period of this study. It does not mean that the intervention is certainly not beneficial; it means that the available data are not strong enough to support a claim of consistent improvement.

At the level of the subscales, the mean ER score was higher in B (18.63) than in A1 (15.75) and A2 (17.00), whereas the mean L/N score changed little from A1 to B (31.25 to 31.00) and was highest in A2 (33.75). These differences are descriptive only. Visual analysis was applied to the Adaptive score, and ER and L/N were not analyzed separately, so no inference about specific dimensions of emotion regulation can be drawn. Likewise, ERC scores alone cannot show which components of CANA for Kids, if any, contributed to score changes, and an account of mechanisms (such as recognizing, understanding, or managing emotions) would have to be supported by process observation notes from the sessions.

Fluctuation in scores during B may be related to emotion regulation being a dynamic process (Gross, 2014), so a child's performance can vary with the situation and activity in each session, especially while he is learning new skills. Other possible sources include day-to-day variation in mood or fatigue, the differing demands of each session's content (for example, sessions that asked the child to name or discuss emotions), the presence and support of the parent, and scoring variability from a single rater. These explanations are speculative; the design cannot test them. The results are also not directly comparable with meta-analyses reporting that CBT- and mindfulness-based interventions reduce emotional difficulties in children (Moltrecht et al., 2021; Rowland et al., 2023), because those studies used group data whereas this study used one participant with 16 measurements.

The findings of this study differ from a number of earlier studies that reported positive results. Meta-analytic reviews of psychological interventions based on CBT and mindfulness reported reductions in emotional difficulties in children and youth (Moltrecht et al., 2021; Rowland et al., 2023), programs involving parents were reported to strengthen co-regulation between parent and child (Severinsen et al., 2025; Zahl-Olsen et al., 2023), and the EMO-T program showed promising results in children with a neurodevelopmental syndrome (Famelart et al., 2022). In this study, the mean Adaptive score changed by only 0.13 points from the first baseline to the intervention phase, and an intervention effect was not visually clear. The difference may be related to the characteristics of this study (one participant, eight intervention sessions, and a baseline that already showed a decreasing trend), whereas the meta-analyses used group data. Unlike earlier studies that relied largely on parent report (Hansen et al., 2025; Lancastle et al., 2024), this study used direct observation in every session, so score changes can be traced session by session; however, the observer was also the interventionist, which carries its own risk of bias. Neuroscience studies show that cognitive-motor interventions can change functional brain connectivity in networks involved in attention and emotion (Izadi-Najafabadi et al., 2022). This study did not measure such aspects, so a link between CANA for Kids and neurophysiological change cannot be assessed from the available data.

This study has several limitations. First, there was only one participant, and the number of sessions in each phase was small (four sessions in A1 and A2). The first baseline showed a decreasing trend, so it is unclear whether the scores in B reflect a stabilization of a declining pattern or ordinary session-to-session fluctuation, and four baseline sessions do not allow a reliable projection of the baseline pattern; this weakens any inference about the intervention. Second, the 15% stability criterion applied to the phase mean produced a wide range, so all phases were classified as 100% stable although scores fluctuated; stability was therefore interpreted together with trend, level, and overlap. Third, the researcher delivered the intervention and also scored the ERC, no independent or blinded observer was used, and inter-rater agreement was not assessed, so observer bias and expectation effects cannot be ruled out. Fourth, the Adaptive score combines the Emotion Regulation and Emotional Lability/Negativity dimensions according to the NovoPsych guide, so it cannot show change in specific aspects of emotion regulation, and ER and L/N were not analyzed visually on their own. Fifth, the Indonesian version of the ERC was translated by the researcher and was not formally validated, and its validity for children with physical-motor impairments was not tested. Sixth, intervention fidelity was monitored informally by comparing activities with the session plan, without a formal fidelity checklist or independent check. Seventh, A2 consisted of four sessions held a few days after the intervention ended, so it does not provide a delayed follow-up. Finally, the participant was 9 years old, above the conventional early childhood range, so the findings cannot be generalized to early childhood education settings.

These results have limited implications for research and practice, and because they come from one child they should not be generalized. Methodologically, a short baseline with a decreasing trend makes an intervention effect difficult to distinguish from natural fluctuation, so baseline phases should be extended until a clear and stable

pattern is established before the intervention begins, and independent raters should be used. For teachers in early childhood and inclusive education, the module offers a set of accessible activities that could be piloted: a body map and a "body light" (green, yellow, red) to notice bodily signals, emotion cards and stories, an emotion mirror, a STOP–LOOK–FEEL–CHOOSE pause routine, and needs cards (see Method). In this study they were delivered in 45-minute sessions with simple instructions, repetition, prompting questions, reminders, positive reinforcement, and motor accommodations in the use of media, worksheets, and games, with help given without removing the child's opportunity to respond independently. For families and companions, the parent's role in this study was to accompany the child and provide help as needed; whether the activities can be carried into home routines was not tested. The conditions of application are narrow: the module was tried only with a 9-year-old with a gross motor impairment who has verbal communication and can follow instructions. It was not tested with younger children, with children who have limited speech or communication (such as SMCI), or in group classroom settings, and any adaptation for early childhood settings (for example, shorter, more play-based sessions) is untested. Theoretically, the results are not sufficient to support or reject the assumption of the Neurohumanistic Paradigm that behavioral change begins with the ordering of self-awareness, so replication with other participants is needed.

5. Conclusion

In an A1–B–A2 single-case study of 16 sessions with one child with a physical-motor impairment, the mean Adaptive Emotion Regulation score was 63.50 in the first baseline (A1), 63.63 in the CANA for Kids intervention phase (B), and 63.25 in the second baseline after withdrawal (A2). Within-condition analysis showed a decreasing trend in A1, a decreasing but almost flat trend in B, and an increasing trend in A2. Under the mean ± 15% criterion the stability percentage was 100% in all phases, although scores still fluctuated from session to session.

Between-condition analysis showed overlap of 100% for B versus A1 and 75% for A2 versus B. With almost identical phase means, high overlap, and a decreasing trend in both A1 and B, an effect of CANA for Kids on adaptive emotion regulation is not visually clear, and the effectiveness of CANA cannot be established with the available data. A2 consisted of four sessions shortly after withdrawal, so it cannot be taken as evidence that any change was maintained over time.

Replication studies are recommended that use stable baselines, more participants, more intervention sessions, independent raters, dimension-level ERC analysis, and younger children in early childhood education settings.

If replicated under these conditions, CANA for Kids may be developed further as a holistic and inclusive emotion regulation guide for children with physical-motor impairments. The present results can serve only as a starting point for such replication.

6. Ethical Considerations

This study was conducted at Yayasan Lentera Sanggar Rainbow, Malang City, as part of the CANA for Kids pilot program run by the foundation in cooperation with CANA Center. The foundation sent a notification letter to the parents of participants (No. 04/CILC-RBW/VII/2026) explaining the purpose of the program, that all assessment, intervention, and evaluation were provided free of charge, and that the schedule was agreed jointly by parents and teachers.

The study was carried out with parental verbal consent and institutional permission from the foundation leadership. Formal review by a research ethics committee or institutional review board (IRB) was not conducted for this community-based pilot study, and no formal ethical approval from such a body is claimed. Following the institutional notification letter, the subject's parent gave verbal consent covering both the child's participation and the anonymized use of the child's data for academic publication. No separate written consent form or audio/video recording of the consent process was made; instead, the parent's verbal agreement was confirmed directly prior to the initial baseline session and was continuously evidenced by the parent's voluntary presence and active accompaniment across all 16 sessions. Formal child assent from the 9-year-old participant was not separately sought, as the activities were integrated into routine educational support under parental accompaniment; the absence of documented written consent and formal child assent is acknowledged as an ethical limitation of this exploratory study.

The subject's privacy and confidentiality were protected by removing all personal identifiers and replacing them with a participant code in all research datasets and this article. Observation sheets, scoring spreadsheets, and session photo/video documentation were stored securely on a password-protected personal device with access restricted exclusively to the research team.

7. Researcher Roles and Declaration of Interests

The CANA method and the CANA for Kids module were developed by Novianti and colleagues (Novianti et al., 2026), and Ranti Novianti is a co-author of this article. This relationship constitutes a potential non-financial conflict of interest, as the co-author has an intellectual interest in the outcome of an evaluation of a method she helped develop. The authors declare no financial or commercial interest in the CANA for Kids module. To mitigate potential bias, the study applied a pre-defined standardized scoring guide (NovoPsych) and transparent visual analysis criteria, and the findings are reported conservatively without claiming intervention efficacy. Furthermore, the

researcher who delivered the intervention also observed and scored the ERC in every session; no independent or blinded observer was used, and inter-rater agreement was not assessed (see Method). These overlapping roles limit the independence of the observations and are explicitly acknowledged as methodological limitations requiring independent replication.

8. Acknowledgments

The authors thank Universitas Negeri Malang for permission and support during this study. Thanks are also extended to the supervising lecturer who contributed to the preparation of this article. The authors also thank the child who took part in the study and his companions for their willingness and cooperation over the 16 sessions.

9. References

Antunes, R., Alexandre, J., Guedes, M., Filipe, M. G., & Veríssimo, M. (2023). Assessing the benefits of the "Intergalactic World" social-emotional learning program for children aged 8–12 years in Portugal: Perspectives from teachers and caregivers. *Frontiers in Psychology*, *14*, 1233335. https://doi.org/10.3389/fpsyg.2023.1233335

Cahyani, P. D., Astriani, D., & Purwaningrum, D. (2026). Meningkatkan kemampuan bahasa ekspresif menggunakan terapi Applied Behavior Analysis (ABA) pada anak Attention Deficit Hyperactivity Disorder (ADHD) [Improving expressive language using Applied Behavior Analysis (ABA) therapy in children with attention deficit hyperactivity disorder (ADHD)]. *CONS-IEDU*, *6*(1), 20–29. https://doi.org/10.51192/cons.v6i1.1945

Cai, R. Y., & Uljarević, M. (2021). Emotion regulation: A target for improving mental health in autism. In A. Hendrickson & S. Wong (Eds.), *Novel programs for autism spectrum disorder* (pp. 425–446). Academic Press. https://doi.org/10.1016/B978-0-323-85031-5.00016-5

Carcelén-Fraile, M. d. C., Hita-Contreras, F., Mesas-Aróstegui, M. A., & Aibar-Almazán, A. (2025). The effect of physical activity on executive function and emotion regulation in children and adolescents with neurodevelopmental disorders: A systematic review and meta-analysis. *Healthcare*, *13*(19), 2415. https://doi.org/10.3390/healthcare13192415

Dell'Aversana, V., Tofani, M., & Valente, D. (2023). Emotion regulation interventions in the development of preterm children: A systematic review of randomized controlled trials. *Children*, *10*(3), 603. https://doi.org/10.3390/children10030603

Downs, J., Blackmore, A. M., Epstein, A., Skoss, R., Langdon, K., Jacoby, P., Whitehouse, A., Leonard, H., & Glasson, E. J. (2018). The prevalence of mental health disorders and symptoms in children and adolescents with cerebral palsy: A systematic review and meta-analysis. *Developmental Medicine & Child Neurology*, *60*(1), 30–38. https://doi.org/10.1111/dmcn.13539

Famelart, N., Diene, G., Çabal-Berthoumieu, S., Glattard, M., Molinas, C., Tauber, M., & Guidetti, M. (2022). What underlies emotion regulation ability? An innovative program based on an integrative developmental approach to improve emotional competence: Promising results in children with Prader–Willi syndrome. *Frontiers in Psychiatry*, *13*, 1038223. https://doi.org/10.3389/fpsyt.2022.1038223

Gao, X., Zhang, J., He, X., Wang, Y., Zhang, X., Hu, H., & Wang, Y. (2025). Motor-based interventions for overall motor skills, body function, activity, participation, and psychosocial factors in children with developmental coordination disorder: A systematic review and meta-analysis. *Sports Medicine - Open*, *11*(1), 59. https://doi.org/10.1186/s40798-025-00833-w

Girgis, M., Paparo, J., & Kneebone, I. (2025). A qualitative study of the emotion regulation experiences of children and adolescents with intellectual disability: "Because it helps my brain to calm down". *Journal of Intellectual & Developmental Disability*, *50*(4), 386–397. https://doi.org/10.3109/13668250.2025.2474197

Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the Difficulties in Emotion Regulation Scale. *Journal of Psychopathology and Behavioral Assessment*, *26*(1), 41–54.

Green, D., & Payne, S. (2018). Understanding organizational and self-regulation abilities in children with developmental coordination disorder. *Current Developmental Disorders Reports*, *5*(1), 34–42. https://doi.org/10.1007/s40474-018-0130

Gross, J. J. (1998). The emerging field of emotion regulation: An integrative review. *Review of General Psychology*, *2*(3), 271–299. https://doi.org/10.1037/1089-2680.2.3.271

Gross, J. J. (Ed.). (2014). *Handbook of emotion regulation* (2nd ed.). The Guilford Press.

Hansen, K. H., Weber, L., Johansen, M., Hoei-Hansen, C. E., et al. (2025). Social-emotional development in young children with cerebral palsy: A scoping review. *Child: Care, Health and Development*, *51*(4), e70130. https://doi.org/10.1111/cch.70130

Holmqvist Larsson, K., Falkenström, F., Andersson, G., Stern, H., Bolmgren, L., Engström, T., Källström, V., Nilsson, M., Pettersson, E., Seesing, F., Öhman, T., Österman, K., & Zetterqvist, M. (2026). Emotion regulation skills training for adolescents and parents in a clinical setting: A randomized controlled trial. *Child and Adolescent Psychiatry and Mental Health*, *20*(1), 85. https://doi.org/10.1186/s13034-026-01098-1

Izadi-Najafabadi, S., Gill, K., & Zwicker, J. G. (2022). Brain functional connectivity changes associated with CO-OP intervention in children with developmental coordination disorder. *Pediatric Research*, *91*(6), 1459–1468. https://doi.org/10.1038/s41390-021-01517-3

Jasni, S. H., Graham, F., Bell, E., & Tan, V. T. Y. (2025). A systematic review of group-based emotion regulation interventions for the social-emotional competence of autistic children. *OTJR: Occupational Therapy Journal of Research*, *46*(3), 402–421. https://doi.org/10.1177/15394492251330507

Lancastle, D., Davies, N. H., Gait, S., Gray, A., John, B., Jones, A., Kunorubwe, T., Molina, J., Roderique-Davies, G., & Tyson, P. (2024). Mapping the landscape of interventions targeting emotion regulation: A systematic review. *Journal of Behavioral and Cognitive Therapy*, *34*(1), 100505. https://doi.org/10.1016/j.jbct.2024.100505

Moltrecht, B., Deighton, J., Patalay, P., & Edbrooke-Childs, J. (2021). Effectiveness of current psychological interventions to improve emotion regulation in youth: A meta-analysis. *European Child & Adolescent Psychiatry*, *30*(6), 829–848. https://doi.org/10.1007/s00787-020-01498-4

Morcov, M. V., Padure, L., Morcov, C. G., & Onose, G. (2021). Findings regarding emotion regulation strategies and quality-of-life domains in families with children with spinal muscular atrophy. *Journal of Medicine and Life*, *14*(3), 384–391. https://doi.org/10.25122/jml-2021-0098

Mursa RA, Patterson C, McErlean G, Halcomb E. How many is enough? Justifying sample size in descriptive quantitative research. Nurse Res. 2025 Jun 11;33(2):35-40. doi: 10.7748/nr.2025.e1958. Epub 2025 Mar 13. PMID: 40078064.

National Association for the Education of Young Children. (2009). *Developmentally appropriate practice in early childhood programs serving children from birth through age 8* [Position statement]. NAEYC.

Novianti, R. (2025). Implementasi CANA sebagai pedagogi neurohumanistik dalam pendidikan inklusif berbasis komunitas: Studi kasus kualitatif di Pusat Intervensi dan Pembelajaran Anak Rainbow [Implementation of CANA as neurohumanistic pedagogy in community-based inclusive education: A qualitative case study at the Rainbow Child Intervention and Learning Center]. *Jurnal Ortopedi Indonesia*, *1*(1), 47–55.

Novianti, R. (2026a). *Paradigma neurohumanistik: Fondasi baru memahami manusia, kesadaran, dan pembelajaran* [Neurohumanistic paradigm: A new foundation for understanding humans, consciousness, and learning]. UPI Press.

Novianti, R. (2026b). *Neurohumanitas jiwa: Jalan pulang menuju kesadaran* [Neurohumanity of the soul: The way home to awareness]. UPI Press.

Novianti, R. (2026c). *Neurohumanitas kehidupan: Dari pikiran ke hati yang sadar* [Neurohumanity of life: From the mind to the aware heart]. UPI Press.

Novianti, R. (2026d). Empowering children with dyslexia through neuroplasticity-based intervention: The CANA method in inclusive education. In M. A. Peters & R. Heraud (Eds.), *Encyclopedia of educational innovation* (pp. 1–7). Springer. https://doi.org/10.1007/978-981-13-2262-4_370-1

Novianti, R., Permana, M. Z., Nurhadi, J., Perdana, D. B. P., Nadiyah, S., & Hutasuhut, F. H. (2026). *CANA (Collaborative Activation for Nurturing Awareness): Paradigma neurohumanistik untuk mendidik dengan kesadaran* [CANA (Collaborative Activation for Nurturing Awareness): A neurohumanistic paradigm for educating with awareness] (S. Syihabuddin & E. Rochyadi, Eds.). UPI Press.

NovoPsych. (n.d.). Emotion Regulation Checklist (ERC). (https://novopsych.com/)

Noyek, S., Davies, C., Champagne, M., Batorowicz, B., & Fayed, N. (2022). Emotional well-being of children and youth with severe motor and communication impairments: A conceptual understanding. *Developmental Neurorehabilitation*, *25*(8), 554–575. https://doi.org/10.1080/17518423.2022.2099997

Oliveira, A., Castro, I., Guimarães, A., Vidal, S., Carneiro, M., Magalhães, B., Rosário, P., & Pereira, A. (2025). Promoting self-regulation in children with cerebral palsy: A mixed-methods analysis of the impact of a training program for psychologists. *European Journal of Investigation in Health, Psychology and Education*, *15*(7), 120. https://doi.org/10.3390/ejihpe15070120

Republic of Indonesia. (2003). *Undang-Undang Republik Indonesia Nomor 20 Tahun 2003 tentang Sistem Pendidikan Nasional* [Law of the Republic of Indonesia Number 20 of 2003 on the National Education System].

Riquelme, I., Hatem, S. M., Sabater-Gárriz, Á., Martín-Jiménez, E., & Montoya, P. (2024). Proprioception, emotion, and social responses in children with developmental disorders: An exploratory study in autism spectrum disorder, cerebral palsy, and various neurodevelopmental situations. *Children*, *11*(6), 719. https://doi.org/10.3390/children11060719

Rowland, G., et al. (2023). Mindfulness-based interventions for emotion regulation in children: A systematic review. *Journal of Child and Family Studies*, *32*(5), 1294–1303. https://doi.org/10.1007/s10826-023-02540-1

Severinsen, L., Nissen-Lie, H. A., Shahar, B., & Zahl-Olsen, R. (2025). Emotion-focused skills training for parents: A randomized controlled trial. *Psychotherapy Research*, *35*(2), 120–135. https://doi.org/10.1080/10503307.2024.2345678

Shields, A., & Cicchetti, D. (1997). Emotion regulation among school-age children: The development and validation of a new criterion Q-sort scale. Developmental Psychology, 33(6), 906–916. https://doi.org/10.1037/0012-1649.33.6.906

Sugiyono. (2024). *Metode penelitian kuantitatif* [Quantitative research methods] (3rd ed., 4th printing). Alfabeta.

Sunanto, J., Takeuchi, K., & Nakata, H. (2005). *Pengantar penelitian dengan subyek tunggal* [Introduction to single-subject research]. Universitas Pendidikan.

Tawney, J. W., & Gast, D. L. (1984). *Single subject research in special education*. Merrill.

White, O. R., & Haring, N. G. (1980). *Exceptional teaching* (2nd ed.). Charles E. Merrill.

Zahl-Olsen, R., Severinsen, L., Stiegler, J. R., Fernee, C. R., Simhan, I., Rekdal, S., & Bertelsen, T. B. (2023). Emotion-oriented parenting interventions for children's mental health: A systematic review and meta-analysis. *Frontiers in Psychology*, *14*, 1159892. https://doi.org/10.3389/fpsyg.2023.1159892