Case Study 1: An Evidence-Based Practice Review Report

Theme: The evidence based for a single intervention, or particular type of intervention, implemented by parents.

Does parent training in emotion coaching (across cultures) support child behaviour and emotional regulation?

Summary

Childhood behavioural difficulties have been associated with a number of negative outcomes including poor self-esteem, negative school outcomes and difficulties with peer relationships (Zdoupas & Laubenstein, 2022; Seaman & Giles, 2019; Papachristou & Flouri, 2020). Emotion coaching is a five-stage process that enables the parent to attune to the child's emotion and respond with empathy in order to support their child's emotional regulation (Gottman, 2011). Research has demonstrated the positive impact of emotion coaching on children's behaviour and emotional regulation (Rose et al., 2015). The 'Tuning in to Kids' (TIK) programme teaches parents how to use emotion coaching to respond to a child's emotions and support their behaviour (Havighurst et al., 2010). This review investigated whether parent involvement in the TIK programme would influence their child's internalising and externalising behaviours and emotional regulation. It also considered whether this effect would be sustained cross-culturally. This review identified mixed results with regard to changes in behaviours, with results varying

depending on timing of the follow-up measure and the sample of participants. Variations between studies make it difficult to draw conclusions regarding differences across countries, further research is required to clarify this.

Introduction

Behaviour and Emotional Regulation

Childhood behavioural difficulties can generally be classified as either internalising or externalising. Internalising behaviours may include anxiety, depression and social withdrawal, and externalising behaviours may include aggression, hyperactivity and impulsivity (Rosenfield et al., 2005; Zdoupas & Laubenstein, 2022). Behavioural difficulties in young children have been associated longitudinally with health risk factors in adolescence and adulthood (Havighurst et al., 2012; Gore et al., 2011). Research has also demonstrated that outcomes for such individuals include higher rates of exclusion, poorer self-esteem, difficulties with peer relationships, reduced sense of school belonging, and negative school experiences and outcomes (Papachristou & Flouri, 2020; Seaman & Giles, 2019; Zdoupas & Laubenstein, 2022).

Emotional regulation refers to a child's ability to moderate their affect, as well as develop strategies to respond to emotional situations (Havighurst et al., 2004). Skills in emotional regulation can act as a protective factor against social and behavioural difficulties (Bølstad et al., 2021), and research has shown that children with behavioural difficulties have poorer emotional regulation skills (Trentacosta & Shaw, 2009). Children in the Early Years, defined as age 0-5 in the United Kingdom (Department for Education, 2021) are often reliant on caregivers to monitor and regulate their emotions and assist them in managing their behaviours (Thompson, 1991). Erdmann and Hertel (2019) describe this co-regulation behaviour as an adults' attempt to

modify a child's thoughts, behaviours or emotions in accordance with their context.

Emotion Coaching

Gottman (2011) outlined emotion coaching as an approach to respond to children's emotions and support their emotional regulation. He described five distinct stages to the emotion coaching process, namely:

1. Become aware of the child's emotion
2. Recognise the emotion as an opportunity for intimacy and teaching
3. Listen empathically, validating the child's feelings
4. Help the child find the words to label the emotion they are having
5. Set limits whilst exploring strategies to solve the problem at hand

Research has shown that parenting programmes incorporating emotional communication principles are effective for improving children's emotional competence and problem behaviours (Kaminski et al., 2008). A literature review by Havighurst et al. (2020) further highlighted the effectiveness of parenting interventions incorporating emotion-focused elements in reducing mental health difficulties in children and adolescents. Research into the effects of training educational staff on emotion coaching principles has begun to emerge, showing that such training can positively influence student's emotional regulation and behaviour (Romney et al., 2022; Rose et al., 2015). This review will build on the literature by considering the impact of parental training that specifically teaches emotion coaching principles, on child behaviour and emotional regulation.

Tuning in to Kids (TIK)

Developed by Havighurst and Harley (2010), 'Tuning in to Kids' (TIK) is a parenting programme which teaches emotion coaching principles. Its use within research has emerged in recent years in order to assess its effectiveness in supporting children's emotional regulation (Bølstad et al., 2021). The intervention is structured in to six sessions, run for two hours weekly, with two 'booster' sessions recommended to consolidate learning. TIK targets parent's emotional socialisation and responsiveness to children's emotional expression and regulation. The programme uses activities to enable parents to reflect on their own expression and perception towards emotions, often referred to as 'meta-emotion awareness'. Parents are taught to attend and respond to low and high intensity emotions using the key emotion coaching principles as outlined by Gottman (2011). These principles are taught through psycho-education with exercises including discussions, watching visual content, home activities, and role-play (Havighurst et al., 2013).

Is emotion coaching appropriate for parents across cultural contexts?

Ecological theories of development highlight that parent-child relationships are influenced by cultural values and beliefs (Bronfenbrenner, 1994). An individual's interactions within these systems impacts on their perceptions of emotions and definitions of emotional competence, and ultimately, parenting practices and styles (Lansford, 2022). For example, alternative to western individualist cultures, within collectivist cultures such as certain Asian communities, 'ego-focused' emotions such as pride or anger can be seen to be disruptive whilst 'other-focused' emotions such as shame and sympathy

may be encouraged (Chan et al., 2009). Research has found associations between parenting styles, and aggressive behaviour as well as poorer emotional regulation (Denham et al., 2000; Gottman et al., 1997; Ramsden & Hubbard, 2002). Building on research by Havighurst et al. (2022) who conducted a qualitative study to investigate the appropriateness of the TIK intervention across cultures, this review aims to investigate whether emotion coaching is an appropriate parenting intervention to support child behaviour and emotional regulation across cultures. This is particularly relevant given the diverse cultural backgrounds of England and Wales, with areas such as London and the West Midlands having populations of up to 46.2% and 20.8% respectively, not identifying as White-British (The Office for National Statistics, 2022). All studies included within this review used the TIK Programme to teach emotion coaching to parents, and as this programme was created based on a western sample, some studies adapted the programme to fit their own culture, including translating instructional materials and defining concepts.

Rationale

The SEND Code of Practice (2015) emphasises the importance and benefit of providing early intervention, considering its positive impact on social and emotional development and ultimately, school success (Department for Children, Schools and Families, 2010; Margetts, 2005; Thummler et al., 2022). Considering this focus on early intervention, this study focuses on children aged 3-6, although the UK Early Years Foundation Stage comprises children up to age 5, children up to age 6 were included in this review considering the cut off age for pre-school in other countries discussed.

Educational Psychologists are well placed to disseminate evidence-based intervention in order to support the development and learning of children within the diverse communities that they work within, whilst the importance of considering such cultural differences is outlined within the HCPC Standards of Proficiency (2015).

Review Question:

Does parent training in emotion coaching (across cultures) support child behaviour and emotional regulation?

Critical Review of the Evidence

Literature Search

A systematic literature search was undertaken in December 2022 using three databases including Web of Science Core Collection, PsycINFO and ERIC (EBSCO), (See Table 1 – Database Search Terms).

Table 1

Database Search Terms

Criteria	Search Terms
Emotion Coaching	'emotion coaching OR emotion-coaching'
	AND
Parent Intervention	'parent intervention OR parent program* OR home intervention OR parent training'

Note. Truncation (*) was used to ensure that multiple endings of root words would be detected. The use of 'AND' combines search term so that results include both terms. Search terms separated by 'OR' ensure that results consider alternative terms of the same concept.

Screening of Articles

The initial searches generated 171 results, whereby 20 studies were excluded due to duplication. 151 studies were identified for title screening, followed by abstract and full-text screening. Studies were excluded based on the inclusion and exclusion criteria (See Table 2). Following full-text screening, 8 studies were included in the final review (See Figure 1 - PRISMA Flowchart of Screening Process; Table 3 - List of Studies Excluded at Full Text Screening; Table 4 – List of Included Studies).

Figure 1

PRISMA Flowchart of Screening Process

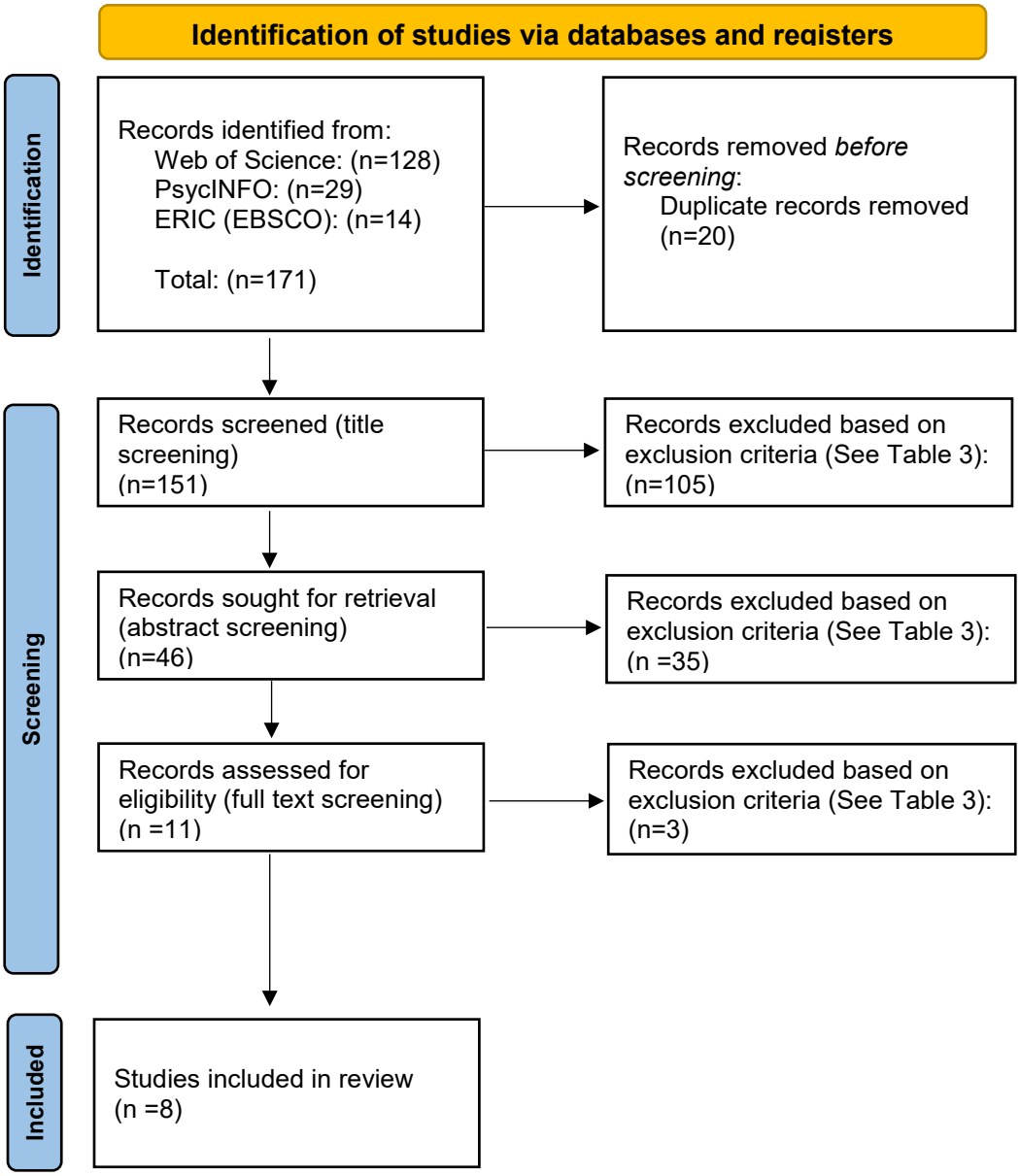

Table 2

Record Inclusion and Exclusion Criteria

	Inclusion Criteria	**Exclusion Criteria**	**Rationale**
1 Peer Review	Peer Reviewed Journal	Not Peer-Reviewed	Peer Reviewed journals are considered to be of higher quality as they have received an additional check from a trained researcher.
2 Intervention	Emotion Coaching intervention implemented to support behaviour and emotional regulation.	Different intervention implemented that is not Emotion Coaching.	This review aims to look specifically at the role of emotion coaching in improving behaviour.
		Emotion Coaching intervention implemented alongside additional intervention/s.	Studying more than one intervention would make it hard to determine which intervention resulted in the effects found within the study.
		Emotion coaching intervention implemented to target a specific need other than behavioural difficulty (e.g. eating disorder).	This review aims to investigate the impact of emotion coaching on behaviour and emotional regulation.
3 Experimental Design	Randomised Controlled Trial (RCT)	Design that is not a Randomised	Randomised Controlled Trials are considered

	Inclusion Criteria	Exclusion Criteria	Rationale
		Controlled Trial (e.g. Qualitative, Correlational, Interrupted Time Series)	the most effective typology of evidence for research measuring effectiveness[1]
4 Language	Article available in English	Article not available in English	The author of this review only understands English.
5 Participants - Child	3-6years old	Aged below 3 or above 6.	This study aimed to consider programmes appropriate to support early intervention, age 3-6 was deemed an appropriate range considering child cognitive ability and that this range covers pre-school age of countries included within the reviews.
	No Autism Spectrum Condition (ASC) Diagnosis	Autism Spectrum Condition (ASC) Diagnosis	Research has highlighted that differences in affective empathy in autistic individuals can impact emotion coaching outcomes[2], therefore this group was excluded as differences in empathy may impact the intervention

	Inclusion Criteria	Exclusion Criteria	Rationale
			effectiveness. Additional research focusing on the impact of emotion coaching with this group may be of interest.
	Not care-experienced child	Care-experienced child	Care experienced: As emotion coaching relies on the initial development of attunement between a parent and child. Care-experienced children were excluded from this study due to potential differences in attunement ability[345]. Additional research focusing on the impact of emotion coaching with this group may be of interest.
6 Participants - Parents	Parent not recently imprisoned	Parent recently imprisoned.	Theory behind emotion coaching highlights the importance of attunement between a caregiver and a child, this group was excluded as parental

	Inclusion Criteria	Exclusion Criteria	Rationale
			imprisonment may have impacted levels of attunement with their child. Additional research focusing on the impact of emotion coaching with this group may be of interest.
7 Outcome Measure	Included a measure for behaviour or emotional regulation.	Not including a measure for behaviour or emotional regulation.	Research question specifically looking at impact on child behaviour and emotional regulation.

Note. [1] (Petticrew & Roberts, 2003),[2] (O'Connor, 2020), [3](Bowlby, 1976), [4] (DePasquale & Gunnar, 2020), [5] (Rees, 2007)

Table 3

List of Excluded Studies at Full-Text Screening

Reference	Reason for Exclusion
Otterpohl, N., Buchenau, K., Havighurst, S., Stiensmeier-Pelster, J., & Kehoe, C. (2020). A German adaptation of tuning in to kids: fostering emotion socialization strategies in German parents of preschool children. *Kindheit und Entwicklung*, *29*(1), 52-60.	4 – Language (written in German, not available in English).
Havighurst, S. S., Harley, A., & Prior, M. (2004). Building preschool children's emotional competence: A parenting program. *Early Education & Development*, *15*(4), 423-448.	3 – Not RCT, Interrupted Time Series Design.
Havighurst, S. S., Duncombe, M., Frankling, E., Holland, K., Kehoe, C., & Stargatt, R. (2015). An emotion-focused early intervention for children with emerging conduct problems. *Journal of abnormal child psychology*, *43*(4), 749-760.	2 - Alongside additional school-based intervention

Table 4

List of Included Studies

	Study Reference (APA)
1	Bølstad, E., Havighurst, S. S., Tamnes, C. K., Nygaard, E., Bjørk, R. F., Stavrinou, M., & Espeseth, T. (2021). A pilot study of a parent emotion socialization intervention: Impact on parent behavior, child self-regulation, and adjustment. *Frontiers in psychology*, 4552.
2	Havighurst, S. S., Wilson, K. R., Harley, A. E., Prior, M. R., & Kehoe, C. (2010). Tuning in to Kids: improving emotion socialization practices in parents of preschool children–findings from a community trial. *Journal of Child Psychology and Psychiatry*, *51*(12), 1342-1350.
3	Aghaie Meybodi, F., Mohammadkhani, P., Pourshahbaz, A., Dolatshahi, B., & Havighurst, S. S. (2019). Improving parent emotion socialization practices: piloting tuning in to kids in Iran for children with disruptive behavior problems. *Family Relations*, *68*(5), 596-607.
4	Qiu, C., & Shum, K. K. M. (2022). Emotion coaching intervention for Chinese mothers of preschoolers: A randomized controlled trial. *Child Psychiatry & Human Development*, *53*(1), 61-75.

	Study Reference (APA)
5	Wilson, K. R., Havighurst, S. S., & Harley, A. E. (2012). Tuning in to Kids: an effectiveness trial of a parenting program targeting emotion socialization of preschoolers. *Journal of family Psychology*, *26*(1), 56.
6	Chan, R. F. Y., Qiu, C., & Shum, K. K. M. (2021). Tuning in to kids: A randomized controlled trial of an emotion coaching parenting program for Chinese parents in Hong Kong. *Developmental Psychology*, *57*(11), 1796.
7	Edrissi, F., Havighurst, S. S., Aghebati, A., Habibi, M., & Arani, A. M. (2019). A pilot study of the tuning in to kids parenting program in Iran for reducing preschool children's anxiety. *Journal of Child and Family Studies*, *28*(6), 1695-1702.
8	Havighurst, S. S., Wilson, K. R., Harley, A. E., Kehoe, C., Efron, D., & Prior, M. R. (2013). "Tuning into kids": Reducing young children's behavior problems using an emotion coaching parenting program. *Child Psychiatry & Human Development*, *44*(2), 247-264.

Note. Sophie S. Havighurst is the creator of the TIK Intervention. As this individual was involved in the majority of the studies included, as a researcher or supervisor for delivery of the intervention, it is important to consider a potential bias within the research and to report findings with this in mind.

Quality and Relevance of the Studies

Gough's Weight of Evidence (WoE) (2007) was used to assess the quality of the research articles discussed within this review, this framework allows for evaluation of general and review-specific criteria in order to produce an overall judgement of a study's contribution to answering a review question. It comprises of three dimensions; WoE A considers the Methodological Quality of a research study, WoE B focuses on the Methodological Relevance of a research study in answering the review question, and WoE C considers topic relevance and appropriateness of a study to answer a review question. The ratings of these three components can then be combined to produce an overall rating (WoE D) which considers the extent to which a study contributes to answering the specific review question.

An adapted version of the Gersten et al. (2005) protocol was used to appraise the Methodological Quality of the research studies, this framework was chosen considering its relevance for critiquing group experimental designs (See Table A1 for Amendments). For WoE B and C Criteria, See Table A5 and A7 respectively. WoE D was calculated by adding together the ratings of WoE A, B and C to create an average rating. The overall WoE ratings are outlined in Table 5 (See Appendix A, B and C for Additional Tables).

Table 5

Overview Weight of Evidence Ratings

Study	WoE A: Methodological Quality	WoE B: Methodological Relevance	WoE C: Topic Relevance	WoE D: Overall Rating
1 Bølstad et al. (2021).	3 (High)	3 (High)	2 (Medium)	2.67 (High)
2 Havighurst et al. (2010).	3 (High)	3 (High)	1.66 (Medium)	2.55 (High)
3 Aghaie Meybodi et al. (2019).	3 (High)	3 (High)	2.33 (Medium)	2.78 (High)
4 Qiu and Shum (2022).	3 (High)	3 (High)	1.67 (Medium)	2.78 (High)
5 Wilson et al. (2012).	3 (High)	3 (High)	1.33 (Low)	2.44 (Medium)
6 Chan et al. (2021).	3 (High)	3 (High)	1.33 (Low)	2.44 (Medium)
7 Edrissi et al. (2019).	3 (High)	3 (High)	1.33 (Low)	2.44 (Medium)
8 Havighurst et al. (2013).	3 (High)	3 (High)	2 (Medium)	2.67 (High)

Note. WoE D ratings are defined as: <1.5= 'low', ≥ 1.5 and < 2.5= 'medium', and ≥ 2.5= 'high'.

Mapping the Field

Eight studies were included within this systematic literature review, with all studies using the TIK programme to teach Emotion Coaching principles to parents. A description of these studies is outlined in Table 6.

Table 6

Mapping the field

Study	Country	Sample Characteristics	Study Design and Measures	Outcome
1 Bølstad et al. (2021)	Norway	Sample Size: 39 (19 girls, 21 boys) Age: 5-6 years. Setting: 17 kindergartens	Design: Randomised Control Trial Questionnaire Measures: - Parent Emotional Style Questionnaire (PESQ), was used to measure parental beliefs towards emotions. - Preschool Anxiety Scale Revised (PAS-R) was used to measure child anxiety. - Eyberg Child Behaviour Inventory (ECBI) was used to measure child behaviour problems. The first subscale (intensity) measures frequency of problem behaviours, the second subscale (problem) measures whether the scorer perceives the behaviour to be a problem or not. Experimental Measures: - Emotional Go/No Go Task (EGNG) measures several areas of cognition including emotional regulation. - AX Continuous Performance Task (AX-CPT) measures adaptive cognitive control.	Parent Outcomes: - Parents in the intervention condition had significant increases in self-reported emotion coaching ability and reduced emotion dismissiveness compared to the control condition. Child Outcomes: - There was an uncorrected significantly larger decrease in parent-reported child behavioural problems on the ECBI in the intervention group compared to the control group. - There were no significant differences between conditions for intensity of behaviour problems or child anxiety. - The number of child behaviours reported by parents as a problem decreased significantly within both groups.

Study	Country	Sample Characteristics	Study Design and Measures	Outcome
2 Havighurst et al. (2010)	Australia	Sample Size: 216 (103 girls, 113 boys) Age: 46-68 months. Setting: 61 preschools	Design: Randomised Control Trial Questionnaire Measures: - Difficulties in Emotional Regulation Scale (DERS) was used to measure parents own reported emotion awareness and regulation. - Parent Emotional Style Questionnaire (PESQ) was used to measure parent beliefs about children's emotions, emotion coaching, and empathy/emotional connection. - The Eyberg Child Behaviour Inventory 6 (ECBI) was used to measure child problem behaviours. - The Sutter–Eyberg Student Behaviour Inventory (SEBSI) was used to measure teacher perceptions on child problem behaviours. Experimental Measures: - The Peabody Picture Vocabulary Test - Third Edition (PPVT-II) was used to measure child receptive language. - The Emotion Skills Task was used to measure child emotional knowledge. Observational Measures: - Observed Emotion Coaching	Parent Outcomes: - Significant improvement in parent's emotion awareness and regulation within intervention group at follow-up. - Parents in the intervention group were observed to use a greater number of emotion labels and to engage in more emotion exploration at follow-up compared to waitlist group. Child Outcomes: - All children improved in emotion knowledge over the duration of the study, though children in the intervention group showed better emotional knowledge at follow-up compared to control group. - There was a significant reduction in parent-reported behaviour problems within the intervention group compared to the control group over time. - Teachers reported significantly lower intensity of behaviour problems for children in the intervention group at follow-up.

Study	Country	Sample Characteristics	Study Design and Measures	Outcome
3 Aghaie Meybodi et al. (2019)	Iran	Sample Size: 54 (2 girls, 32 boys) Age: 3-5 years Setting: 18 pre-schools Inclusion criteria: T-score ≥ 65 on the externalizing subscale of the CBCL. Only mothers included in the sample.	Design: Randomised Control Trial Questionnaire Measures: - The Achenbach Child Behaviour Checklist (CBCL) externalising subscale was used to screen child problem behaviour. - The Coping with Children's Negative Emotions Scale (CCNES) was used to measure parent socialisation practices. - Difficulties in Emotion Regulation Scale (DERS) measured mother's emotional awareness and regulation. - The Persian version of the Emotion Regulation Checklist (ERC) was used to measure child emotional regulation. - The Persian version of the Eyberg Child Behaviour Inventory (ECBI) was used to measure child behaviour problems.	Parent Outcomes: - Parents in the intervention condition reported being slightly less dismissive at post-test compared to pre-test but not from post-test to follow-up. There were no significant changes within parents in the control group. - Parents in the intervention condition showed a slight increase in emotion coaching behaviours pre-test to post-test, but not post-test to follow-up. - There were no statistical differences in parent's emotional regulation between conditions. Child Outcomes: - Parents in the intervention condition reported substantial reductions in behaviour problems at follow-up. - There was no statistical change reported on the emotional regulation subscale.
4 Qiu and Shum (2022)	China	Sample Size: 81 (34 girls, 47 boys). Age: 3-6 years.	Design: Randomised Control Trial Questionnaire Measures:	Parent Outcomes: - Parents in the intervention group reported substantially more positive involvement in parenting than the control group at post-test.

Study	Country	Sample Characteristics	Study Design and Measures	Outcome
		Setting: pre-schools Inclusion criteria: Only mothers included in the sample	- The Alabama Parenting Questionnaire-Preschool Version (APQ-P) was used to measure general parenting practices. - The Maternal Emotional Style Questionnaire (MESQ) and the Coping with Children's Negative Emotions Scale (CCNES) were used to measure emotional parenting practices. - The Strengths and Difficulties Questionnaire (SDQ) was used to measure children's problem behaviour (internalising and externalising). - A Family Communication Subscale adapted from the Parent-Adolescent Communication Scale (PACS) was used to measure family communication. - A Chinese version of the General Health Questionnaire (GHQ) was used to measure parent wellbeing. Observational Measures: - Observation of mother-child interactions was used to measure parent use of emotion-related language.	- Parents in the intervention group reported increased use of emotion coaching, expressive encouragement and emotion-focused reactions to deal with their child's negative emotions, and decreased use of dismissing emotions compared to the control group. - Observations revealed significantly higher quality of family communication and better psychological wellbeing for mothers in the intervention group compared to mothers in the control group at post-test. Child Outcomes: - There were no significant changes to children's behaviour at post-test.
5 Wilson et al. (2012)	Australia	Sample Size: 128 (67 boys, 61 girls) Age: 4-5 years	Design: Randomised Control Trial Questionnaire Measures: - The Maternal Emotional Style Questionnaire (MESQ) was used to	Parent Outcomes: - Parents in the intervention group scored lower on emotion dismissing beliefs and practices, and higher on emotion coaching

Study	Country	Sample Characteristics	Study Design and Measures	Outcome
		Setting: pre-schools	measure parent emotion socialisation beliefs. - The Coping with Children's Negative Emotions Scale (CCNES) was used to measure parent emotion socialisation practices. - Relevant items on the Alabama Parenting Questionnaire-Preschool Version (APQ-P) was used to measure general parenting practices. - The Eyberg Child Behaviour Inventor (ECBI) was used to measure child problem behaviours. - The Devereux Early Childhood Assessment (DECA) was used to measure resilience and protective factors. - The Social Competence and Behaviour Evaluation (SCBE) was used to measure teacher report of social competence and behaviour.	practices and positive child involvement post intervention. Child Outcomes: - There were no significant intervention effects detected through measures of child behaviour. - There were improved scores in behaviour of children across the sample, with significant main effects for time found on the variables of behaviour problems intensity and problem score.
6 Chan et al. (2021)	Hong-Kong	Sample Size: 104 (54 girls, 50 boys) Age: 3-6 years Setting: 5 pre-schools	Design: Randomised Control Trial Questionnaire Measures: - Alabama Parenting Questionnaire–Preschool Revision (APQ-Pr) was used to measure general parenting practices. - The Coping with Children's Negative Emotions Scale (CCNES) was used to	Parent Outcomes: - No significant interaction effects were observed for parent measures of CCNES and parent's emotion regulation strategies between the groups over time. - Parents in the intervention group reported significantly reduced use

Study	Country	Sample Characteristics	Study Design and Measures	Outcome
			measure parent's reactions to their child's negative emotions. - Emotion Regulation Questionnaire (ERQ) measured parent's emotional regulation strategies. - Parenting Stress Index–Short Form (PSI–SF) was used to assess parents' perception of distress in taking care of their children. - The Emotion Regulation Checklist (ERC) measured children's ability to manage emotional situations.	of punitive parenting and lower parenting stress at post-test and at follow-up, these changes were not significant within the waitlist group. - Parents reported significant improvements in expressive encouragement on the CCNES at follow-up compared to post-intervention. Child Outcomes: - No significant interaction effects were observed for child emotion regulation between the groups over time. - Children in the intervention group showed significant improvements in lability/negativity on the ERC at follow-up but not immediately after the intervention.
7 Edrissi et al. (2019)	Iran	Sample Size: 45 (19 girls, 26 boys) Age: 4-6 years Setting: kindergarten	Design: Randomised Control Trial Questionnaire Measures: - The Preschool Anxiety Scale (PAS) was used to measure child anxiety.	Child Outcomes: - Children in the intervention group were reported to have significantly lower anxiety at follow up compared to the control group.

Study	Country	Sample Characteristics	Study Design and Measures	Outcome
		and community-centres. Inclusion criteria: Elevated anxiety levels as indicated from t-score ≥ 35+1 SD above mean, t=60 for PAS. Only mothers included in the sample.		
8 Havighurst et al. (2013)	Australia	Sample Size: 54 (12 girls, 42 boys) Age: 4-5 years Setting: behaviour clinic at children's hospital Inclusion criteria:	Design: Randomised Control Trial Questionnaire Measures: - Difficulties in Emotional Regulation Scale (DERS) was used to measure parents own reported emotion awareness and regulation. - Parent Emotional Style Questionnaire (PESQ) was used to measure parent beliefs about children's emotions, emotion coaching, and empathy/emotional connection.	Parent Outcomes: - Parents in the intervention condition reported significantly lower emotion dismissing, higher emotion coaching and greater empathy compared to waitlist condition. - Parents in the intervention group were observed to use significantly more emotion labels and more emotion exploration.

Study	Country	Sample Characteristics	Study Design and Measures	Outcome
		Elevated scores in problem behaviours as indicated through scores above the clinical cut off on the ECBI. Additional information: only mothers included in the sample	- The Eyberg Child Behavior Inventory 6 (ECBI) was used to measure child problem behaviours. - The Sutter–Eyberg Student Behavior Inventory (SEBSI) was used to measure teacher perceptions on child problem behaviours. Experimental Measures: - The Peabody Picture Vocabulary Test - Third Edition (PPVT-II) was used to measure child receptive language. - The Emotion Skills Task was used to measure child emotional knowledge. Observational Measures: - Observed Emotion Coaching	Child Outcomes: - There were significant improvements in child behaviour in both conditions, this was greater at follow-up. - Parents in the intervention condition reported significantly lower child behaviour intensity compared to the waitlist group. - Teachers reported lower child behaviour intensity and fewer problems at follow-up in the intervention group compared to the control group. - Children in the intervention group scored significantly higher on emotion knowledge at follow up compared to the control group.

Design

All studies included within this review used a Randomised Controlled Trial (RCT) design, RCTs are considered the most appropriate design for studies measuring effectiveness (Petticrew & Roberts, 2003), therefore all studies received a 'high' rating on WoE B. All studies used a baseline and follow-up measure, although some studies did not use a measure post-intervention. It may be considered that the follow-up measure is of most importance in that enables measurement of changes in child behaviour and emotional regulation over time. Studies varied in the time of their follow-up, ranging from 12 weeks to 6 months post-intervention.

Measures

In measuring the behavioural outcomes of the children, it is important to consider the impact of the intervention on parents' emotion coaching ability, as this would provide support in attributing changes in the child's behaviour to the intervention itself, rather than additional factors. All but one study used a measure to indicate this, Edrissi et al. (2019) did not include parent measures, therefore this study received a 'low' rating on WoE C criteria 'parent measure'. Studies that received a 'high' rating on WoE C (Havighurst et al., 2010, and Qiu & Shum, 2022) used observations to measure parents use of emotion coaching language, pre and post intervention, arguably providing the more valid measure of emotion coaching use. Studies were rated as 'medium' if they used a self-report measure for parent's emotion coaching practices, although this may provide some indication of parent emotion coaching ability, the validity of the measure for representing actual behaviour may be questioned (Davidiov & Grusec, 2006).

With regard to child measures for behaviour, all measures used a questionnaire format, bringing forward issues of social desirability and expectancy bias which can impact the validity of results. Havighurst et al. (2010), Wilson et al. (2012) and Havighurst et al. (2013) used both parent and teacher reports to measure externalising behaviours, increasing the validity of results by taking multiple perspectives. This review was interested in studies that measured behaviour, distinguishing between components of internalising and externalising behaviour. Studies that measured both components of behaviour were therefore seen as having more weight within this review, as these studies are more representative of behavioural difficulties. This review was also interested in studies that measured emotional regulation, considering the value of this measure in that it can provide some indication of the mechanism by which behaviour improves. Considering this, Bølstad et al. (2021)'s study was rated as 'high' in the 'child measures' section of WoE C as they measured both behavioural components as well as emotional regulation. Studies received a 'medium' weighting if they used two of these relevant measures, this includes Aghaie Meybodi et al. (2019) as they measured externalising behaviour and emotional regulation, and Qiu and Shum (2022) as they measured both components of behaviour. All other studies received a 'low' rating as they used only one relevant measure. Havighurst et al. (2010), Wilson et al. (2012) and Havighurst et al. (2013) measured only externalising behaviours, Edrissi et al. (2019) measured only internalising behaviour, and Chan et al. (2021) measured only emotional regulation.

As this review includes studies with participants from a range of countries, it is important to consider how valid measures are for use across these samples. Chen et al., (2018) discuss differences between cultures and highlight how differences in normative study samples can impact the validity and generalisability of results. The psychometric properties of measures should be considered when interpreting results. Some studies within this review made explicit reference to cultural relevance of their measures, e.g. Aghaie Meybodi et al. (2019) outlined that research has demonstrated that the Persian version of the ERC is appropriate for the Iranian sample used within their study (Meybodi et al, 2018).

A strength of the studies included within this review, is that all reported Cronbach's alpha, this is a measure of internal consistency which can be compared to published normed data for individual measures in order to determine its reliability. However, although most studies showed at least acceptable ratings for measures at different time points, Qiu and Shum (2022) found that Cronbach alpha ratings were poor for SDQ sub-tests, therefore they outlined that this posed a threat to the reliability of the results from this measure. Similarly, Wilson (2012) found 'questionable' Cronbach alpha ratings for their emotion coaching.

Participants

Within the eight studies included within this systematic literature review, 721 parent-child dyads were included. In line with the inclusion and exclusion criteria (See Table 2), children's ages ranged between 3-6 years, 45% of these participants were girls, and 55% were boys. This review included studies from five countries, participants were based in: Norway, Australia,

Iran, China and Hong-Kong. The majority of parents that took part in the study were mothers, with several of the research papers including only mothers, two of which outlined this within their inclusion criteria, Aghaie Meybodi et al. (2019) explained their rationale being that mothers are predominantly the primary caregivers in Iran. Participants were selected from lower to upper socioeconomic backgrounds, Edrissi et al. (2019) used a cluster sampling method in order to ensure recruitment from a range of socioeconomic areas. Most studies randomized participants into intervention or waitlist condition, preventing self-selection bias, though Havighurst et al. (2013) divided the sample by pre-school to prevent participant contamination; whereby participants in the control group may receive elements of the intervention, e.g. through word of mouth. All studies reported and controlled for parent demographic differences between groups.

Although this review was interested in assessing the effectiveness of emotion coaching for the general population, studies aimed at addressing its appropriateness for children with behavioural difficulties were rated higher on WoE C, as this population is considered to be more at-risk of negative outcomes. This review investigated both internalising and externalising behaviours; therefore, the highest WoE C rating was for studies that included both children with internalising difficulties and children with externalising behavioural difficulties, which none of the studies did. The studies that did look at a population with behavioural difficulties included only one component of behaviour, these studies were rated as 'medium' as although they looked specifically at at-risk individuals, they did not encompass all elements of 'behaviour' (internalising and externalising). For example, Aghaie Meybodi et

al. (2019) and Havighurst et al. (2013)'s samples included children with elevated levels of externalising behaviour, whilst Edrissi et al. (2019) used a sample with elevated levels of internalising behaviour. This meant that the other five studies within this review received a 'low' WoE C rating within the category of 'sample population' as they did not require participants to have either internalising or externalising behaviour difficulties and therefore, these findings may be less applicable to supporting these at-risk groups.

Intervention

All studies used the TIK programme to teach emotion coaching principles to parents. All studies with the exception of Havighurst et al. (2013) mentioned the use of fidelity checklists to ensure that TIK facilitators had maintained fidelity to the intervention. Wilson et al. (2012) and Chan et al. (2021) also used peer supervision to support this. As this review was interested in implementation of the TIK programme across different cultures, there were some adaptations that were made based upon pilot studies and qualitative information (e.g. translating materials, adaptations to materials, terminology to outline key concepts).

Effect sizes

This review was interested in differences in child outcomes through group (intervention, control) by time (pre-measure, post-measure, follow-up) interaction. The majority of studies reported this interaction effect size as Cohen's d, those that reported effect sizes as η2 were converted using Psychometrica (Lenhard & Lenhard, 2016). Table 7 outlines the Cohen's d effect size descriptions. Havighurst et al. (2013) reported descriptive statistics of time points separately, therefore Campbell Collaboration Effect

Size Calculator (Wilson, 2020) was used to calculate the Cohen's d effect size for the interaction. Effect sizes reflect the magnitude of difference between groups (Kelley & Preacher, 2012), some studies reported a negative effect size, indicating a reduction in scores post-measure, though effect sizes need to be considered alongside significance. Intervention effects are outlined in Table 8.

Table 7

Effect Size Descriptors for Cohens d (1988).

Effect Size	Descriptor
.8	Large
.5	Medium
.2	Small

Results – Behaviour

Havighurst et al. (2010) and Aghaie Meybodi et al. (2019) found statistically significant reductions in externalising behaviour for children in the intervention conditions over time when compared to the control condition, with medium to large effect sizes, these studies were rated as 'medium' on WoE C. Bølstad et al. (2021) also found significant reductions in externalising behaviours, though their result was not significant after controlling for multiple tests. They found no significant difference in internalising behaviour between groups over time. This study received a 'medium' WoE C rating as they considered multiple components of behaviour within their measure, enabling for a more representative view of the effect of the intervention on behaviour.

Alternatively, Wilson et al. (2012) and Havighurst et al. (2013) found no significant effect on child externalising behaviour. Qui & Shum (2022) found no significant change in children's behaviours (internalising and externalising) at post-measure. Edrissi et al. (2019) found a significant reduction in internalising behaviours in the intervention group, reporting a high effect size, however this study received a 'medium' WoE D rating as they did not include measures for parent emotion coaching, therefore it is difficult to conclude that the results were due to the intervention and not a placebo effect.

Results - Emotional Regulation

Aghaie Meybodi et al. (2019) found that children in the intervention condition increased significantly in the lability/negativity subscale measuring emotional

regulation, reporting a medium effect size, though there were no significant effects found in the adaptive emotional regulation subscale. This effect was also observed in the intervention group within Chan et al. (2021)'s study at follow-up, reporting a large effect size, though this was not found immediately after the intervention. However, this study received a 'medium' WoE rating as a self-report emotion coaching measure was used by parents, this makes it difficult to attribute these outcomes to the intervention. Further, this study did not use a child behavioural measure and therefore the results are less applicable to the findings of this review.

Table 8

Study Findings

Study	Authors	Sample Size (Intervention/ Control)	Outcome Measure	Outcome Variable	Analysis	Effect Size (Cohens *d*) and descriptor	p-value	Time of Measures	WoE D
1	Bølstad et al. (2021).	N=21/ N=19	Preschool Anxiety Scale Revised (PAS-R)	Behaviour (Internalising)	Time by condition interaction	0.05 (Minimal effect size)	p=0.94	T1: Pre-intervention, T2: 6 weeks, T3: 6 months	High
			Eyberg Child Behaviour Inventory (ECBI) – Intensity subscale	Behaviour (Externalising)	Time by condition interaction	-0.47 (Small effect size)	p<0.05*		
			Emotional Go/No Go Task (EGNG)	Emotional Regulation	Time by condition interaction	-1.1 (Large effect size)	p=0.02		
2	Havighurst et al. (2010).	N=106/ N=110	The Eyberg Child Behavior Inventory (ECBI)	Behaviour (Externalising)	Time by condition interaction	0.57 (Medium effect size)	p<.001	T1: Pre-intervention, T2: 6 weeks, T3: 6 months	High

3	Aghaie Meybodi et al. (2019)	N=27/ N=26	The Persian version of the Eyberg Child Behavior Inventory (ECBI)	Behaviour (Externalising)	Time by condition interaction	0.91 (Large effect size)	p<.001	T1: Pre-intervention, T2: 6 weeks, T3: 3 months	High
			The Persian version of the Emotion Regulation Checklist (ERC)	Emotional Regulation (Adaptive Emotional Regulation)	Time by condition interaction	0.35 (Small effect size)	p=.258		
				Emotional Regulation (Lability/Negativity)	Time by condition interaction	0.55 (Medium effect size)	p=.032		
4	Qiu & Shum (2022).	N=45/ N=44	The Strengths and Difficulties Questionnaire (SDQ) – emotional problems	Behaviour (Internalising)	Time by condition interaction	0.35 (Low effect size)	p=.18	T1: Pre-Intervention, T2: 6 weeks	High
			The Strengths and Difficulties Questionnaire (SDQ) –	Behaviour (Externalising)	Time by condition interaction	0.46 (Low effect size)	p=0.10	T1: Pre-intervention, T2: 6 weeks	
							p=<.05	T1: Pre-intervention, T2: 6	

			conduct problems		Effect of time in intervention group across the three time points	0.67 (Medium effect size)		weeks, T3: 6 months	
5	Wilson et al. (2012).	N=62/ N=66	The Eyberg Child Behaviour Inventor (ECBI)	Behaviour (Externalising)	Time by condition interaction	0.37 (Low effect size)	p=.097	T1: Pre-intervention, T2: 7 months	Medium
6	Chan et al. (2021).	N=54/ N=50.	The Emotion Regulation Checklist (ERC)	Emotional Regulation (Adaptive Emotional Regulation)	Time by condition interaction	0.20 (Low effect size)	p=0.65	T1: Pre-intervention, T2: 6 weeks, T3: 18 weeks	Medium
				Emotional Regulation (Lability/Negativity)	Time by condition interaction	0.59 (Medium effect size)	p=.20		
					Effect of time in intervention group between pre-intervention and 18 weeks.	1.33 (Large effect size)	p<.05		

7	Edrissi et al. (2019).	N=30/ N=26	The Preschool Anxiety Scale (PAS)	Internalising (Anxiety)	Time by condition interaction	0.97 (Large effect size)	p<.001	T1: Pre-intervention, T2: 6 weeks, T3: 6 months	Medium
8	Havighurst et al. (2013)	N=31/ N=23	The Eyberg Child Behaviour Inventory 6 – Behaviour Intensity	Behaviour (Externalising)	Between-group difference at T3 (accounting for T1)	-0.13 (Minimal effect size)		T1: Pre-intervention, T2: 6 weeks, T3: 6 months	High
			The Eyberg Child Behavior Inventory 6 (ECBI) – Problem Behaviour	Behaviour (Externalising)	Between-group difference at T3 (accounting for T1)	-0.43 (Small effect size)			

Note. *significant before adjusting for multiple tests

Conclusions and Recommendations

This review found mixed results regarding the effectiveness of an emotion coaching parenting intervention in improving child behaviour (both internalising and externalising) and emotional regulation. All studies received 'medium' and 'high' WoE D ratings, this may be indicative of the high methodological quality of the studies, and relevance of RCT's in assessing the effectiveness of interventions (Petticrew & Roberts, 2003). Though all studies received 'low' and 'medium' ratings within WoE C which may make it difficult to draw inferences from these results to the current topic of interest in this review.

In studies investigating the impact of the intervention on child externalising behaviours, two studies found significant improvements in behaviour within the intervention group (Havighurst et al., 2010 and Aghaie Meybodi et al., 2019), reporting medium and large effect sizes. An additional study showed significance before adjusting for multiple tests (Bølstad et al., 2021) and three studies showed no significant differences in behaviour between groups (Havighurst et al., 2013; Qui & Shum, 2022; Wilson et al., 2012). The largest effect size was found by Aghaie Meybodi et al. (2019) when using a 3-month follow-up measure, whilst studies that used a 6-month follow-up measure identified small and medium effect sizes (Bølstad et al., 2021; Havighurst et al., 2013; Qui & Shum, 2022). This might suggest that the effectiveness of the intervention is most evident at a particular time point post-intervention, and its impact may decrease following this. This has important implications for practice with regards to considering the need for continued support for parents to embed emotion coaching within their practice.

It may also be concluded that emotion coaching interventions are more appropriate for children with elevated levels of behavioural difficulty, as studies stating child behavioural difficulties within their inclusion criteria appeared to show better outcomes on child behaviour. Aghaie Meybodi et al. (2019) looked specifically at children with externalising behaviour difficulties and found significant reductions in behaviour problems, reporting a high effect size. Edrissi et al. (2019) also reported a high effect size, with significant reductions in child internalising behaviours in children with elevated anxiety levels. These findings might suggest that training in emotion coaching is most effective for parents of children with elevated levels of difficulty. However, it is unclear as to whether these outcomes were a result of parent's levels of motivation to engage with the intervention itself or if this was due to the child's responsiveness to the emotion coaching strategies employed, bringing forward the need for further research.

Although fewer studies included a measure for emotional regulation, there is some support to evidence that emotional regulation is the mechanism by which behavioural change occurs. Aghaie Meybodi et al. (2019) and Chan et al. (2021) used versions of the ERC and found improved emotional regulation abilities. Although Chan et al. (2021) did not use a measure for behaviour, Aghaie Meybodi et al. (2019)'s observed reduction in child externalising behaviour alongside their significant emotional regulation increase might provide support that improvements in emotional regulation was the mechanism by which this behavioural change occurred.

This review aimed to investigate whether the TIK emotion coaching intervention would be appropriate for parents from a range of cultural

backgrounds. Although the mixed findings make it difficult to draw conclusions on this, we can consider possible hypotheses based on the findings of this review. For example, Iranian samples showed improvements in both internalising and externalising behaviours as well as emotional regulation. These findings, however, were not shown with Norwegian samples, who found some decrease in externalising behaviours but not internalising behaviours. We may therefore consider whether cultural differences impact the effectiveness of emotion coaching for different types of behaviour (i.e. internalising or externalising) and whether this links to differences in emotional socialisation between cultures.

Further research

As this review found differences in study results considering time of measure, future research considering the impact of emotion coaching training over time could provide useful insights to the implementation of such programmes. This might inform appropriate timings or strategies for follow-up sessions to embed practices. Longitudinal studies which assess the impact of parental training over time will also provide additional insight given that we may expect to see changes in emotional regulation to develop over longer periods of time.

Although this review reported inconclusive results, there was some evidence that a parent emotion coaching intervention can support child behaviour in studies based in Iran and Australia, though this was not shown within other countries such as China. Future studies could investigate these differences

between cultures further, whilst also considering how valid measures are across cultures.

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Appendix

Appendix A: Weight of Evidence A

Table A1

Amendments to the Gersten et al. (2005) Protocol for WoE A Rating

Question	Amendment	Rationale
Quality Indicators for Describing Participants 1. Was sufficient information provided to determine/confirm whether the participants demonstrated the disability(ies) or difficulties presented?	Removed from measure	The current review focused on the general population as well as individuals with behavioural difficulties, therefore it was not necessary to determine difficulty of population in order to generalise the findings.
Quality Indicators for Implementation of the Intervention and Description of Comparison Conditions 3. Was the nature of services provided in	Adjusted wording to: 3. Was the nature of services provided in comparison conditions	Most of the studies included samples from the general population, and all studies offered the intervention to the control group at post-test or follow-up. Therefore, it was only necessary to

comparison conditions described?	described if necessary?	describe control group nature of services if recruited from a specific setting such as a hospital.
Desirable Quality Indicators 3. Were outcomes for capturing the intervention's effect measured beyond an immediate post-test?	Exclude	Some studies did not do an immediate post-test, instead using a delayed post-test. Due to the nature of the intervention, a post-test was not deemed necessary. Where needed, this was addressed in outcome measured within WoE A.

Table A2
Summary WoE A

Study	Essential Criteria				Total Essential Criteria (/9)	Desirable Criteria (/7)	Overall (/16)
	Participants (/2)	Intervention implementation (/3)	Outcome Measures (/2)	Data Analysis (/2)			
Bølstad et al. (2021).	2	3	2	2	9	4	13
Havighurst et al. (2010).	2	2	2	2	8	5	13
Aghaie Meybodi et al. (2019).	2	3	2	2	9	5	14
Qiu and Shum (2022).	2	3	2	2	9	5	14
Wilson et al. (2012).	2	3	2	2	9	4	13
Chan et al. (2021).	2	3	2	2	9	5	14
Edrissi et al. (2019).	2	3	2	1	8	4	12
Havighurst et al. (2013).	2	3	2	2	9	6	15

Table A3
WoE A Coding Criteria based on the Gersten et al. (2005) Coding Protocol

WoE Rating	Requirements
(3) High	- Study meets at least 8 essential criteria - Study meets 3 or more desirable criteria
(2) Medium	- Study meets at least 8 essential criteria - Study meets 1 or more desirable criteria
(1) Low	- Study meets less than 8 essential criteria

Note. The criteria for weighting studies as High, Medium and Low is based upon the Gersten et al. (2005) recommendation that to be considered acceptable quality, a study should meet all but one of the essential criteria and at least one desirable criteria. To be considered high quality, a study should meet all but one of the essential criteria and at least four of the desirable criteria. This was adjusted to three desirable criteria as one question was removed (See Table A1).

Table A4
Summary of WoE A Ratings

Study	Rating
Bølstad et al. (2021).	3 (High)
Havighurst et al. (2010).	3 (High)
Aghaie Meybodi et al. (2019).	3 (High)
Qiu and Shum (2022).	3 (High)
Wilson et al. (2012).	3 (High)
Chan et al. (2021).	3 (High)
Edrissi et al. (2019).	3 (High)
Havighurst et al. (2013).	3 (High)

Gersten et al. (2005) Protocol for WoE A Rating Studies Example.

Study 1 - Bølstad et al. (2021)

Essential Quality Indicators

Quality Indicators for Describing Participants

1. Were appropriate procedures used to increase the likelihood that relevant characteristics of participants in the sample were comparable across conditions?

☒Yes ☐ No ☐ Not Applicable/Unable to Code

2. Was sufficient information given characterizing the interventionists or teachers provided? Did it indicate whether they were comparable across conditions?

☒Yes ☐ No ☐ Not Applicable/Unable to Code

Quality Indicators for Implementation of the Intervention and Description of Comparison Conditions

1. Was the intervention clearly described and specified?

☒Yes ☐ No ☐ Not Applicable/Unable to Code

2. Was the fidelity of implementation described and assessed?

☒Yes ☐ No ☐ Not Applicable/Unable to Code

3. Was the nature of services provided in comparison conditions described? *(adjustment: if necessary)*

☐Yes ☐ No ☒ Not Applicable/Unable to Code

Quality Indicators for Outcome Measures

1. Were multiple measures used to provide an appropriate balance between measures closely aligned with the intervention a and measures of generalized performance?

☒Yes ☐ No ☐ Not Applicable/Unable to Code

2. Were outcomes for capturing the intervention's effect measured at the appropriate times?

☒Yes ☐ No ☐ Not Applicable/Unable to Code

Quality Indicators for Data Analysis

1. Were the data analysis techniques appropriately linked to key research questions and hypotheses? Were they appropriately linked to the unit of analysis in the study?

☒Yes ☐ No ☐ Not Applicable/Unable to Code

2. Did the research report include not only inferential statistics but also effect size calculations?

☒Yes ☐ No ☐ Not Applicable/Unable to Code

Desirable Quality Indicators

1. Was data available on attrition rates among intervention samples? Was severe overall attrition documented? If so, is attrition comparable across samples? Is overall attrition less than 30%?

☐Yes ☒ No ☐ Not Applicable/Unable to Code

2. Did the study provide not only internal consistency reliability but also test–retest reliability and interrater reliability (when appropriate) for outcome measures? Were data collectors and/or scorers blind to study conditions and equally (un)familiar to examinees across study conditions?

☐Yes ☒ No ☐ Not Applicable/Unable to Code

3. Was evidence of the criterion-related validity and construct validity of the measures provided?

☒Yes ☐ No ☐ Not Applicable/Unable to Code

4. Did the research team assess not only surface features of fidelity implementation (e.g., number of minutes allocated to the intervention or teacher/interventionist following procedures specified), but also examine quality of implementation?

☒Yes ☐ No ☐ Not Applicable/Unable to Code

5. Was any documentation of the nature of instruction or series provided in comparison conditions?

☒Yes ☐ No ☐ Not Applicable/Unable to Code

6. Did the research report include actual audio or videotape excerpts that capture the nature of the intervention?

☐Yes ☒ No ☐ Not Applicable/Unable to Code

7. Were results presented in a clear, coherent fashion?

☒Yes ☐ No ☐ Not Applicable/Unable to Code

Appendix B: Weight of Evidence B

Table B1
Summary of WoE B Ratings

Study	Rating
Bølstad et al. (2021).	3 (High)
Havighurst et al. (2010).	3 (High)
Aghaie Meybodi et al. (2019).	3 (High)
Qiu and Shum (2022).	3 (High)
Wilson et al. (2012).	3 (High)
Chan et al. (2021).	3 (High)
Edrissi et al. (2019).	3 (High)
Havighurst et al. (2013).	3 (High)

Table B2
WoE B Criteria

Criteria	**Rating**	**Rationale**
Study Design	3 (High) – Randomised Controlled Trial 2 (Medium) – Quasi experimental and Cohort Studies 1 (Low) – Non-Experimental Designs	Based on Petticrew and Roberts (2003) research looking at the typology of evidence for research investigating the effectiveness of an intervention.

Appendix C: Weight of Evidence C

Table C1
WoE C Scoring Overview

Study	Sample Population	Child Measures	Parent Measures	Overall WoE C
Bølstad et al. (2021).	1 (low)	3 (high)	2 (medium)	2 (medium)
Havighurst et al. (2010).	1 (low)	1 (low)	3 (high)	1.66 (medium)
Aghaie Meybodi et al. (2019).	2 (medium)	2 (medium)	2 (medium)	2 (medium)
Qiu and Shum (2022).	1 (low)	2 (medium)	3 (high)	2 (medium)
Wilson et al. (2012).	1 (low)	1 (low)	2 (medium)	1.33 (low)
Chan et al. (2021).	1 (low)	1 (low)	2 (medium)	1.33 (low)
Edrissi et al. (2019).	2 (medium)	1 (low)	1 (low)	1.33 (low)
Havighurst et al. (2013).	2 (medium)	1 (low)	3 (high)	2 (medium)

Note. WoE C ratings are defined as: <1.5= 'low', ≥ 1.5 and < 2.5= 'medium', and ≥ 2.5= 'high'.

Table C2
WoE C Criteria

Criteria	Rating	Rationale
Sample Population - Behavioural Difficulties	3 (high) – study inclusion criteria stated children with *either* internalising or externalising behavioural difficulties (both groups included in review). 2 (medium) – study inclusion criteria stated children with internalising behavioural difficulties or children with externalising behavioural difficulties. 1 (low) - study inclusion criteria did not state behavioural difficulties.	Children with internalising or externalising behavioural difficulties are at a greater risk of negative outcomes, therefore studies investigating the impact on this population were deemed as more beneficial within research. As many studies focus on either internalising or externalising behaviours, studies that investigated both were deemed of more value.
Child Measures	3 (high) – study included three relevant measures including for internalising behaviours, externalising behaviours and emotional regulation.	This review was interested in measuring both internalising and externalising behaviour as well as emotional regulation.

Criteria	Rating	Rationale
	2 (medium) – study included two relevant measures (from internalising behaviour, externalising behaviour, and emotional regulation). 1 (low) – study included one relevant measure (either internalising or externalising behaviour, or emotional regulation).	
Parent Measures	3 (high) – study included an observational measure of parent emotion coaching practice. 2 (medium) – study included at least one self-report measure of parent emotion coaching practice. 1 (low) – study either included no measure of parent emotion coaching practice or reported no significant improvement in practice.	In order to attribute changes in child's behaviour to the emotion coaching intervention, it is important for researchers to use a measure for parent emotion coaching ability. Although report measures may be useful in this, observational measures may be seen as the most valid measure in that they enable researchers to recognise implementation of practice.

Table C3
Summary of WoE C Ratings

Study	WoE C Rating
Bølstad et al. (2021).	2 (medium)
Havighurst et al. (2010).	1.66 (medium)
Aghaie Meybodi et al. (2019).	2.33 (medium)
Qiu and Shum (2022).	1.67 (medium)
Wilson et al. (2012).	1.33 (low)
Chan et al. (2021).	1.33 (low)
Edrissi et al. (2019).	1.33 (low)
Havighurst et al. (2013).	2 (medium)