Counseling-Based Socio-Emotional Interventions for Children with Autism Spectrum Disorder: A PRISMA-Guided Empirical Systematic Review

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ABSTRACT:
Socio-emotional difficulties remain a persistent developmental concern among children with Autism Spectrum Disorder (ASD), particularly within counseling and psychoeducational contexts. Despite a growing body of intervention research, limited evidence syntheses have critically examined the methodological robustness and certainty of counseling-based socio-emotional interventions. This study conducted a systematic review following PRISMA 2020 guidelines to evaluate the effectiveness and evidential strength of such interventions. Database searches (2015–2026) yielded 642 records, of which eight studies met inclusion criteria after duplicate removal and independent multi-stage screening. Methodological quality was appraised using the Mixed Methods Appraisal Tool (MMAT 2018), and certainty of evidence was assessed through the GRADE framework. Findings indicate that cognitive-behavioral therapy (CBT)-based interventions consistently demonstrate significant reductions in anxiety and improvements in emotion regulation, supported by high methodological quality. In contrast, developmental, play-based, and school-based counseling approaches show positive outcomes in peer engagement and social competence but are characterized by fewer controlled designs and greater variability. Overall, certainty of evidence ranges from high for structured CBT adaptations to moderate for developmental and ecological approaches. These findings provide a structured evidence map that clarifies intervention robustness and supports more transparent, evidence-informed decision-making in socio-emotional counseling for children with ASD.

Keywords: Autism Spectrum Disorder, counseling, socio-emotional development, emotion regulation, systematic review.

INTRODUCTION

Children with Autism Spectrum Disorder (ASD) frequently experience persistent socio-emotional difficulties that affect peer interaction, emotional awareness, and self-regulation across developmental stages. These challenges are

associated with elevated rates of anxiety, social withdrawal, and long-term psychosocial adjustment problems (American Psychiatric Association, 2022; Lord et al., 2020; Masi et al., 2017). Recent longitudinal evidence further highlights that early emotion regulation deficits significantly predict internalising trajectories in autistic children (Boulter et al., 2014; Gotham et al., 2013). Although intervention research in ASD has expanded substantially over the past two decades, much of the focus has centered on behavioral modification and communication training, with comparatively less systematic synthesis devoted specifically to counseling-based socio-emotional interventions (Spain, Blainey, et al., 2017; Wood et al., 2020). A focused empirical review of counseling-oriented socio-emotional approaches therefore remains warranted.

Socio-Emotional Challenges in Autism Spectrum Disorder

Socio-emotional impairment in ASD extends beyond observable communication deficits and includes difficulties in emotion recognition, regulation, and anxiety management (Mazefsky et al., 2013). Emotional dysregulation has been identified as a transdiagnostic mechanism contributing to internalising and externalising symptoms among autistic youth (Cai et al., 2018; Kern et al., 2022; Patel et al., 2017). More recent meta-analytic findings confirm that anxiety severity in ASD is strongly mediated by maladaptive cognitive appraisal and regulatory inflexibility (Sharma et al., 2014). Anxiety disorders occur at significantly higher rates in children with ASD compared to neurotypical peers, often exacerbating social avoidance and functional impairment (Conner et al., 2023; White et al., 2014). Structured counseling interventions targeting emotional awareness and coping strategies have demonstrated meaningful reductions in anxiety symptoms and improvements in adaptive functioning (Reaven et al., 2012; Wood et al., 2020). Contemporary counseling research further emphasises the importance of context-sensitive and developmentally adapted anxiety interventions for neurodiverse youth (Arizona et al., 2019; Cooper et al., 2023).

Counseling-Based Socio-Emotional Interventions in ASD

Cognitive-behavioral therapy (CBT) represents one of the most empirically supported psychosocial approaches for anxiety and emotional regulation in ASD, demonstrating moderate to large effect sizes in controlled trials (Spain, Blainey, et al., 2017; Ung et al., 2015; Wood et al., 2020). More recent randomized and hybrid implementation studies indicate that emotionally focused CBT adaptations tailored to neurodevelopmental profiles produce sustained gains across school and clinical settings (Delgado et al., 2024; Lerner et al., 2012). Beyond CBT, developmental and play-based counseling approaches have shown promise in strengthening peer engagement and socio-emotional reciprocity during early childhood (Davidson & Stagnitti, 2021; Kasari et al., 2015). School-based social-emotional learning adaptations and community-implemented psychosocial programs have further extended structured counseling models into ecological contexts, with emerging evidence suggesting that implementation fidelity and cultural responsiveness significantly influence intervention outcomes (Brookman-Frazee et al., 2016; Conaughton et al., 2017; J. Durlak et al., 2022; Humphrey et al., 2018). Collectively, contemporary findings indicate that structured, theory-informed socio-emotional counseling interventions are increasingly recognised as a distinct and evidence-supported domain within ASD intervention research. However, existing reviews often aggregate heterogeneous intervention models without isolating counseling-based socio-emotional components, and relatively few systematically evaluate methodological quality and certainty of evidence using structured appraisal frameworks (Gates et al., 2017; Hong et al., 2018; Sandbank et al., 2023).

Integrative and Spiritual Perspectives on Socio-Emotional Development

From the perspective of Islamic intellectual tradition, socio-emotional development has long been associated with the cultivation of balanced character (akhlaq) and disciplined self-regulation. Classical scholars conceptualised emotional refinement as part of ethical and psychological maturation. Al-Ghazali described the regulation of fear, anger, and desire as central to achieving internal equilibrium and moral clarity (Martin & Hambali, 2023; Soleh, 2022). Similarly, Ibn Miskawayh emphasised the development of virtuous character through habituation, reflective guidance, and moderation of emotional impulses (van Ess et al., 1969; van Ess & Nasr, 1969). Within these traditions, emotional balance is framed as an integrated state involving cognition, affect, and intentional action rather than as an isolated psychological symptom. Contemporary Islamic counseling scholarship increasingly situates these classical insights within modern therapeutic frameworks, integrating cognitive restructuring, spiritual reflection, and relational guidance in addressing emotional distress (Haque & Keshavarzi, 2014; Skinner, 2019). More recent developments highlight structured Islamic counseling models that align spiritual regulation with evidence-based psychosocial interventions (Keshavarzi & Haque, 2013; Rothman & Coyle, 2018). Rather than positioning spirituality as a substitute for psychological intervention, this perspective conceptualises counseling as a holistic process that attends to emotional regulation, moral development, and adaptive functioning simultaneously.

Research Gap and Purpose of the Study

Despite increasing empirical attention to socio-emotional interventions in ASD, the literature remains methodologically fragmented. Existing reviews frequently aggregate heterogeneous intervention types without isolating counseling-based socio-emotional approaches as a distinct analytic category. In addition, relatively few syntheses systematically appraise methodological quality and certainty of evidence using structured evaluation frameworks. Consequently, practitioners and researchers lack a clearly delineated, counseling-focused evidence map that clarifies the relative strength and consistency of socio-emotional intervention outcomes for children with ASD.

This study responds to the methodological fragmentation in the literature by providing a systematic and empirically focused synthesis of counseling-based socio-emotional interventions for children with Autism Spectrum Disorder. Guided by PRISMA 2020 recommendations, the review includes only primary intervention studies and applies structured appraisal of methodological quality using the MMAT framework alongside certainty evaluation through GRADE. By isolating counseling-oriented socio-emotional interventions as a distinct analytic focus, this review clarifies their design characteristics, methodological robustness, and the relative strength and consistency of reported socio-emotional outcomes.

METHODOLOGY

Design

This study employed a systematic review design. The review protocol followed PRISMA 2020 recommendations (Page et al., 2021). The review focused exclusively on empirical primary intervention studies examining counseling-based socio-emotional interventions for children with Autism Spectrum Disorder (ASD). Methodological quality was appraised using the Mixed Methods Appraisal Tool (MMAT 2018) (Hong et al., 2018), and certainty of evidence was evaluated through the GRADE framework (Guyatt et al., 2011)

Information Sources and Search Strategy

A comprehensive literature search was conducted in PubMed, Scopus, Web of Science, and ERIC. The final search update was completed in May 2026. Search terms combined controlled vocabulary and Boolean operators to capture empirical counseling-based socio-emotional interventions for children with ASD. Core terms included:

"Autism Spectrum Disorder" OR "ASD," combined with "counseling intervention" OR "psychotherapy" OR "cognitive behavioral therapy" OR "play therapy" OR "parent-mediated intervention," and further combined with outcome-related terms such as "social-emotional skills," "emotion regulation," "social competence," and "anxiety."

Database filters were applied to include peer-reviewed journal articles. No initial restriction was placed on publication year to ensure comprehensive coverage, but only articles published in English were considered. Reference lists of eligible studies were manually screened to identify additional relevant records.

Eligibility Criteria

Studies were eligible if they involved children formally diagnosed with Autism Spectrum Disorder and evaluated a counseling-based intervention explicitly targeting socio-emotional outcomes, including emotion regulation, anxiety reduction, social competence, or adaptive functioning. Eligible study designs were limited to randomized controlled trials, quasi-experimental studies, school-based intervention trials, and empirical implementation studies reporting primary outcome data. Only peer-reviewed journal articles published between January 2015 and May 2026 were considered, and articles had to be available in English.

Studies were excluded if they focused solely on pharmacological treatment, behavioral compliance training without socio-emotional outcome measures, adult populations, observational research without intervention components, systematic reviews, meta-analyses, conceptual discussions, or case reports without empirical evaluation.

Criteria Study Selection

The search initially identified 642 records. After removal of 142 duplicates, 500 records remained for title and abstract screening. Screening was conducted to exclude clearly irrelevant studies based on population, intervention type, and outcome focus. Seventy full-text articles were assessed for eligibility. Following full-text evaluation against predefined inclusion criteria, 62 studies were excluded due to intervention mismatch, absence of socio-emotional outcomes, methodological limitations, or ineligible age range. Eight empirical studies met all eligibility criteria and were included in the final qualitative synthesis.

Criteria Data Extraction

Data were extracted using a structured extraction form developed for this review. Extracted information included study design, country, sample characteristics, intervention type and duration, theoretical orientation, primary socio-emotional outcomes, key findings, and reported limitations. Extraction focused on variables necessary to support cross-study comparison and methodological appraisal. All extracted data were verified for consistency with published reports.

Quality Appraisal

Methodological quality was assessed using the Mixed Methods Appraisal Tool (MMAT 2018) (Hong et al., 2018). Each study was evaluated according to criteria appropriate to its design. Studies meeting all relevant criteria were classified as high methodological quality and low risk of bias. Studies meeting most criteria were classified as moderate–high quality with moderate risk of bias, and those with notable methodological limitations were classified as moderate quality with moderate–high risk of bias. Appraisal criteria addressed sampling adequacy, intervention integrity, outcome measurement validity, and completeness of reporting.

Certainty of Evidence

Certainty of evidence across intervention clusters was evaluated using the GRADE framework (Guyatt et al., 2011). Assessment considered risk of bias, inconsistency of findings, indirectness of evidence, imprecision related to sample size or confidence intervals, and potential publication bias. Randomized controlled trials were initially considered high certainty but were downgraded where necessary based on methodological concerns. Non-randomized designs were

evaluated with appropriate caution in accordance with GRADE principles.

Ethical Considerations

This study is a systematic review based solely on previously published research and did not involve human participants, animal subjects, or identifiable personal data; therefore, formal ethical approval was not required and the study is considered exempt from ethical review. All included studies were screened to ensure appropriate ethical approval and informed consent procedures. The review followed PRISMA 2020 guidelines and adhered to principles of transparency and responsible research practice. Generative AI and AI-assisted tools (ChatGPT, Scite, and Scopus AI) were used in a limited capacity for language refinement and literature support only, while all substantive aspects of the research, including study selection and interpretation of findings, were conducted and verified by the authors, who take full responsibility for the manuscript.

RESULTS

Study Selection

The database search identified 642 records across PubMed, Scopus, Web of Science, and ERIC. After removal of 142 duplicates, 500 records remained for title and abstract screening. A total of 430 records were excluded during screening due to irrelevance to counseling-based interventions, non-ASD populations, or absence of socio-emotional outcomes. Seventy full-text articles were assessed for eligibility. Of these, 62 studies were excluded because of intervention mismatch, lack of primary socio-emotional outcome measures, methodological limitations, or ineligible age range. Eight empirical studies met all inclusion criteria and were included in the qualitative synthesis. The study selection process is presented in *Figure 1* below.

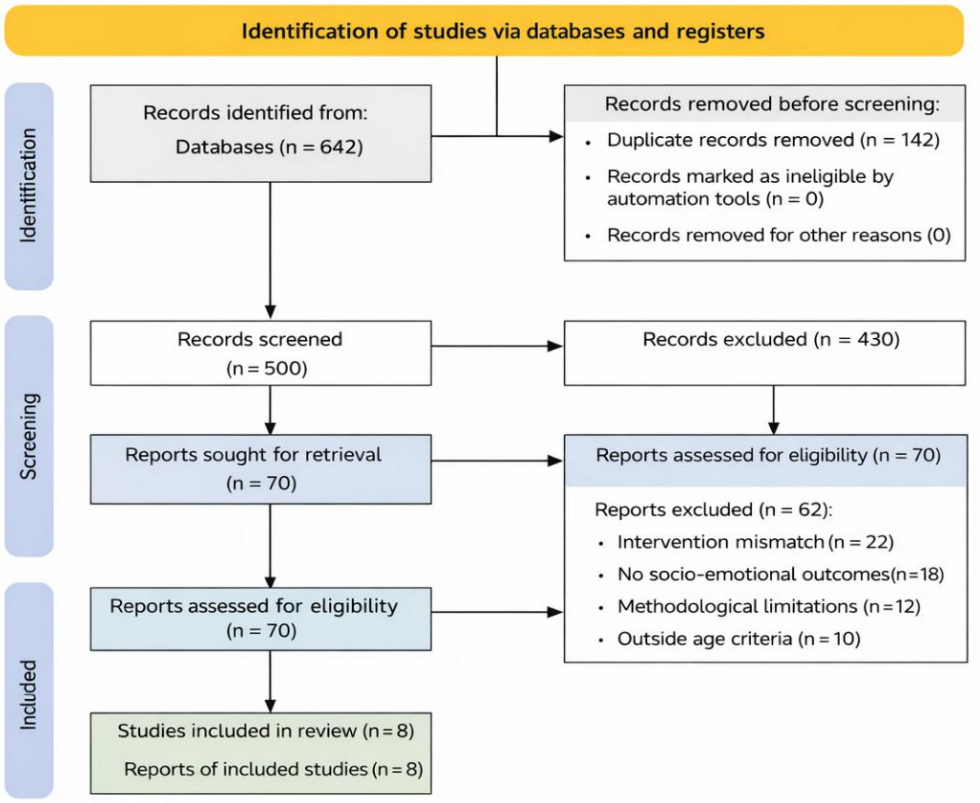

Figure 1. PRISMA 2020 Flow Diagram of Study Selection (642 → 142 → 500 → 70 → 8).

(Note. The flow diagram illustrates the systematic filtering process leading to the final inclusion of eight empirical intervention studies)

Study Characteristics

The eight included studies comprised three randomized controlled trials, two quasi-experimental studies, one school-based intervention trial, one community implementation study, and one applied intervention study. Four studies were conducted in the United States, two in Canada, one in Australia, and one in Indonesia. Participants across all studies were children formally diagnosed with Autism Spectrum Disorder, spanning early childhood to adolescence.

Intervention duration ranged from eight to sixteen weeks. Counseling-based approaches included cognitive-behavioral therapy adaptations, developmental and play-based interventions, school-based social-emotional learning programs, and community-implemented psychosocial models. Primary socio-emotional outcomes assessed across studies included anxiety severity, emotion regulation, social competence, peer engagement, adaptive functioning, and emotional awareness. The final qualitative synthesis included eight empirical intervention studies: (Allen et al., 2023; Brian et al., 2016; Brookman-Frazee et al., 2016; Conaughton et al., 2017; Davidson & Stagnitti, 2021; Kasari et al., 2006; Muazar Habibi, 2023; Wood et al., 2020). Detailed characteristics of the included studies are summarised in *Table 1* below.

Table 1. Characteristics of Included Empirical Counseling-Based ASD Intervention Studies (n = 8).

		Study Characteristic						
Author & Year	**Country**	**Design**	**Sample Characteristics**	**Intervention Type & Duration**	**Theoretical Framework**	**Primary Socio-Emotional Outcomes**	**Key Statistical Findings**	**Reported Limitations**
Allen et al., 2023	USA	Randomized Controlled Trial	Children with ASD (school-age)	Parent–Child Interaction Therapy (12 weeks)	Behavioral–Relational	Anxiety symptoms; emotion regulation	Significant reduction in anxiety ($p < .05$); improved regulation scores	Short follow-up duration
Wood et al., 2020	USA	Randomized Controlled Trial	Youth with ASD (high-functioning)	CBT for anxiety (16 sessions)	Cognitive-Behavioral	Anxiety severity; coping skills	Large effect size compared to control	Limited generalizability
Conaughton et al., 2017	Australia	Randomized Controlled Trial	Children with high-functioning ASD and comorbid anxiety	Internet-based CBT program	Cognitive-Behavioral (technology-supported)	Anxiety symptoms	Significant reduction in anxiety compared to control condition	Limited generalizability to adolescent populations
Davidson &	Australia	Quasi-experimental	Early childhood ASD	Play-based interventio	Developmental–Play	Social reciprocity; peer	Significant pre–post	Small sample size

Stagnitti, 2021				n (10 weeks)		engagement	improvements	
Brookman-Frazee et al., 2016	USA	Implementation Trial	Community ASD sample	Evidence-based psychosocial program	Implementation Science	Adaptive functioning; social skills	Improved functional outcomes	Contextual variability
Brian et al., 2017	Canada	Intervention Study	Preschool ASD	Environmental/social engagement program	Ecological-Developmental	Socio-emotional competence	Moderate improvement across domains	Limited control group
Kasari et al., 2016	USA	Randomized Controlled Trial	School-aged children with ASD	School-based peer-mediated social engagement intervention (8–12 weeks)	Developmental–Social Engagement Framework	Social competence; peer engagement; social network inclusion	Significant improvements in peer engagement and social network centrality compared to control	Variability in implementation fidelity and limited long-term follow-up
Habibi, 2023	Indonesia	Quasi-experimental	Children with ASD	Social play therapy (10 weeks)	Developmental–Play	Peer interaction; emotional responsiveness	Significant improvement in interaction scores	Non-randomized design

Note. This overview enables cross-study comparison of intervention features and outcome focus

Methodological Quality and Risk of Bias

Methodological quality was evaluated using the Mixed Methods Appraisal Tool (MMAT 2018). Three randomized controlled trials met all relevant MMAT criteria and were classified as high methodological quality with low risk of bias. Four studies met most criteria and were classified as moderate–high quality with moderate risk of bias. One quasi-experimental study met fewer criteria and was classified as moderate quality with moderate–high risk of bias. No study was categorised as high risk overall. Detailed quality appraisal results are presented in table below.

Table 2. Methodological Quality and Risk of Bias Assessment (MMAT 2018)

Author & Year	**Methodological Quality**			
	Study Design	**MMAT Criteria Met (%)**	**Overall Quality Rating**	**Risk of Bias Level**
Allen et al., 2023	RCT	100%	High methodological quality	Low risk

Wood et al., 2020	RCT	100%	High methodological quality	Low risk
Conaughton et al., 2017	RCT	100%	High methodological quality	Low risk
Kasari et al., 2016	RCT	80%	Moderate–high quality	Moderate risk
Davidson & Stagnitti, 2021	Quasi-experimental	80%	Moderate–high quality	Moderate risk
Brookman-Frazee et al., 2016	Implementation trial	80%	Moderate–high quality	Moderate risk
Brian et al., 2017	Intervention study	80%	Moderate–high quality	Moderate risk
Habibi, 2023	Quasi-experimental	60%	Moderate quality	Moderate–high risk

Note. Empirical ASD Intervention Studies, n = 8

Thematic Synthesis of Intervention Types

Studies were grouped according to intervention orientation and outcome focus. Three randomized controlled trials evaluated cognitive-behavioral therapy–based interventions targeting anxiety reduction and emotional regulation. Two studies employed developmental or play-based counseling approaches focusing on peer engagement and socio-emotional reciprocity. One study examined a school-based social-emotional learning adaptation, while two studies evaluated community or implementation-oriented psychosocial programs.

Across studies, CBT-based interventions consistently reported reductions in anxiety symptoms and improvements in emotion regulation. Developmental and play-based interventions reported improvements in peer interaction and social reciprocity. School-based and community programs reported gains in social competence and adaptive functioning. The thematic clustering and cross-study comparison are summarised below.

Table 3. *Thematic Synthesis Matrix of Counseling-Based Socio-Emotional Interventions (n = 8)*

Intervention Cluster	Theoretical Orientation	Contributing Studies (n)	Direction of Effect	Consistency Across Studies	Methodological Strength
Cognitive-Behavioral Therapy (CBT)	Cognitive-Behavioral	Allen et al., 2023; Wood et al., 2020; Conaughton et al., 2017 (n = 3)	Strong positive reduction in anxiety and improved regulation	High consistency across RCTs	High (Low risk of bias)
Play-Based / Developmental Approaches	Developmental–Play	Davidson & Stagnitti, 2021; Habibi, 2023 (n = 2)	Moderate improvements in peer engagement	Moderate consistency	Moderate

			and social reciprocity		
School-based Peer-Mediated Social Engagement	Developmental–Social Engagement Framework	Kasari et al., 2016 (n = 1)	Positive effects on peer engagement and social network inclusion	Moderate (supported by RCT evidence but limited replication within cluster)	High (RCT design with structured protocol; fidelity variability noted)
Community / Implementation-Based Programs	Implementation Science / Ecological	Brookman-Frazee et al., 2016; Brian et al., 2017 (n = 2)	Positive improvements in adaptive functioning and socio-emotional competence	Moderate consistency	Moderate

Table 3 presents intervention clusters, theoretical orientation, contributing studies, direction of effect, consistency across studies, and methodological strength.

Certainty of Evidence

Certainty of evidence was assessed using the GRADE framework across domains of risk of bias, inconsistency, indirectness, and imprecision. The CBT cluster demonstrated high certainty of evidence, with minor downgrading in some cases due to sample size limitations. Developmental and play-based interventions demonstrated moderate certainty, reflecting non-randomized designs and smaller samples. The school-based intervention demonstrated low to moderate certainty due to single-study representation. Community and implementation-based programs demonstrated moderate certainty, with downgrading for methodological variability. A summary of certainty ratings is provided in *Table 4*.

Table 4 *GRADE Certainty of Evidence Summary Across Intervention Clusters*

Intervention Cluster	No. of Studies	Study Design Base	Risk of Bias	Inconsistency	Imprecision	Overall Certainty
Cognitive-Behavioral Therapy (CBT)	3	RCTs	Low	Low	Moderate	High
Play-Based / Developmental	2	Quasi-experimental	Moderate	Moderate	Moderate	Moderate
School-based Peer-Mediated Social Engagement	1	Randomized Controlled Trial	Low to Moderate	Not assessable (single study)	Moderate	Moderate
Community / Implementation Programs	2	Non-randomized trials	Moderate	Moderate	Moderate	Moderate

Certainty ratings were determined based on GRADE domains, including risk of bias, inconsistency, indirectness, and imprecision. Ratings reflect overall confidence in the stability and generalizability of reported socio-emotional outcomes.

DISCUSSION

Despite increasing empirical attention to socio-emotional interventions in Autism Spectrum Disorder, the literature has remained methodologically fragmented, limiting clarity regarding the relative strength of counseling-based approaches. This fragmentation is consequential because practitioners require clearly appraised evidence to guide intervention selection across clinical, school, and community contexts. The present review addressed this issue by isolating counseling-based socio-emotional interventions and systematically evaluating their methodological quality and certainty of evidence. This study provides a more differentiated evidence map that clarifies the relative robustness of intervention models and strengthens the foundation for counseling-informed practice in ASD populations.

A central pattern emerging from this synthesis is the concentration of high-certainty evidence within cognitive-behavioral therapy–based interventions. The structured nature of CBT, particularly its emphasis on cognitive restructuring, emotion identification, and skills rehearsal, may contribute to greater standardisation in research design and outcome measurement. Prior trials have similarly demonstrated sustained anxiety reduction and improved emotional regulation in adapted CBT protocols for autistic youth (Spain, Sin, et al., 2017; Wood et al., 2020) The present synthesis extends these findings by situating CBT within a broader comparative appraisal, highlighting not only effectiveness but also relative methodological maturity.

Developmental and play-based interventions demonstrated promising improvements in peer engagement and socio-emotional reciprocity, yet were supported by fewer controlled designs. This pattern suggests that while such approaches may be developmentally appropriate and relationally sensitive, their research base remains comparatively emergent. Earlier studies have emphasised the value of play-mediated interaction for social communication development (Kasari et al., 2015), and the current review reinforces their potential while underscoring the need for more rigorous comparative trials.

Evidence from school-based and community-implemented programs further illustrates the contextual complexity of socio-emotional intervention research. Gains in social competence and adaptive functioning were reported across ecological settings, yet certainty ratings were moderated by implementation variability and design limitations. This finding aligns with broader implementation research emphasising the influence of fidelity and contextual adaptation on intervention outcomes (Brookman-Frazee et al., 2016; J. A. Durlak et al., 2022). Rather than diminishing their relevance, these results highlight the importance of structured delivery frameworks and systematic monitoring in applied settings.

Importantly, the review does not position one intervention model as universally superior. Instead, it clarifies evidentiary gradients across counseling approaches. By applying structured appraisal frameworks, the synthesis differentiates between interventions supported by high-certainty randomized evidence and those supported by promising but methodologically developing research. This distinction enables more transparent evidence-informed decision-making and reduces the risk of overgeneralisation based on heterogeneous or uneven study designs.

From a broader counseling perspective, the findings reinforce the central role of guided emotional regulation and relational scaffolding in supporting children with ASD. Contemporary counseling psychology emphasises adaptive self-regulation and social competence as foundational

developmental processes. These principles resonate with classical Islamic ethical perspectives that conceptualise emotional moderation and disciplined self-regulation as integral to balanced character formation (Haque & Keshavarzi, 2014; Soleh, 2022). The convergence lies not in replacing empirical practice with spiritual frameworks, but in recognising shared emphases on structured guidance, intentional behaviour, and emotional equilibrium. Within this integrative lens, counseling-based socio-emotional interventions may be understood as structured mechanisms that support balanced emotional development across diverse cultural and educational contexts.

Several methodological considerations emerge from the present synthesis. The variability in design robustness across intervention clusters indicates a need for greater standardisation in socio-emotional outcome measurement and extended follow-up assessment. Multi-site randomized trials evaluating developmental and school-based models would strengthen comparative certainty. *Additionally,* hybrid effectiveness–implementation designs may offer valuable insight into how contextual factors influence sustained outcomes in real-world settings.

Overall, this review advances understanding by moving beyond narrative aggregation and providing a structured appraisal of counseling-based socio-emotional interventions for children with ASD. By clarifying evidentiary gradients and methodological robustness, the study contributes a more transparent and practically relevant synthesis to the counseling and ASD intervention literature.

The differentiated certainty levels identified in this review have direct implications for counseling practice and research. Practitioners working with children with ASD may prioritise structured, evidence-supported socio-emotional frameworks—particularly CBT-informed approaches—when addressing anxiety and emotional regulation concerns. At the same time, developmental and school-based interventions remain viable options in contexts where relational engagement and ecological integration are central, provided that implementation fidelity and outcome monitoring are maintained.

For counseling researchers, the findings underscore the importance of rigorous study design and transparent reporting. Incorporating standardised socio-emotional outcome measures, clearly defined intervention protocols, and structured appraisal frameworks can strengthen the cumulative evidence base. The integration of quality assessment and certainty evaluation within intervention research may further support clearer translation of findings into applied counseling settings.

Several limitations should be acknowledged. The review was restricted to peer-reviewed English-language studies published between January 2015 and May 2026, which may have excluded relevant research in other languages or earlier foundational trials. The limited number of high-rigor randomized trials outside CBT-based interventions constrains broad generalisation across all counseling models. In addition, the synthesis was qualitative and did not include meta-analytic aggregation of effect sizes.

Future research should prioritise larger randomized and multi-site trials evaluating developmental and school-based socio-emotional interventions. Greater standardisation in measuring emotion regulation and social competence would enhance cross-study comparability. Longitudinal follow-up designs are needed to assess sustainability of intervention effects. Expanding culturally responsive adaptations and hybrid effectiveness–implementation studies may further strengthen the applicability of counseling-based socio-emotional interventions across diverse ASD populations.

CONCLUSION

Socio-emotional challenges remain a central concern in interventions for children with Autism Spectrum Disorder, particularly in relation to anxiety, emotional regulation, and social competence. Although research in this area has expanded, methodological fragmentation has

limited clarity regarding the relative strength of counseling-based approaches. By systematically isolating and appraising empirical intervention studies, the present synthesis clarifies evidentiary gradients across counseling models and highlights the stronger methodological consolidation within structured cognitive-behavioral adaptations. Developmental, school-based, and community-oriented interventions demonstrate promising but comparatively developing evidence bases. These findings contribute a more transparent and counseling-focused evidence map to support informed decision-making and strengthen the alignment between intervention design, methodological rigor, and socio-emotional outcomes in ASD populations.

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