

Promoting mental health of parents with special educational needs through counseling intervention

Fotini Rista and Agathi Stathopoulou *

Department of Public and Community Health School of Public Health University of West Attica, Greece.

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Abstract

Most parents today face significant challenges in raising and caring for their children. These challenges are amplified when children are diagnosed with Special Educational Needs (SEN) or Neurodevelopmental Disorders, often leading parents to experience elevated levels of stress and emotional distress. For this reason, the development of services that address the needs of both children and their caregivers is of critical importance. Counseling and family-based interventions constitute a vital component in the empowerment and support of families. The aim of the present study is to explore current data regarding the counseling support provided to parents of children with SEN. Using a systematic literature review methodology, 16 international studies were selected based on established inclusion and exclusion criteria. The findings highlight that parent counseling is primarily delivered through intervention and training programs designed to equip caregivers with stress-reduction strategies, foster positive parent-child interactions, and enhance socio-emotional skills and communication.

Keywords: Special Educational Needs; Parents; Parental Stress; Parent Counseling; Family Support Programs; Parent Training

1. Introduction

It is estimated that over 291 million children and adolescents under the age of 20 worldwide are diagnosed with developmental disabilities and special educational needs (SEN), including intellectual disability, hearing or vision loss, autism spectrum disorder (ASD), or attention deficit hyperactivity disorder (ADHD) [1]. Parents of children with SEN frequently report experiencing chronic stress that significantly impacts their mental health. Raising a child with SEN and the constant demand for psychological and physical support often increase parental psychological distress and affect their interpersonal and social relationships. Consequently, addressing and managing stress in parents of children with SEN is essential, and targeted interventions should be developed for stress prevention and relief [2].

Furthermore, it is crucial that family members receive accurate information as soon as possible following the child's diagnosis, to ensure appropriate adjustments and prepare the family for the emotional stress that may arise. It is also necessary to explore the specific problems and needs of parents when designing appropriate support services. Research conducted with parents in this context remains limited [3].

1.1. The Role and Daily Life of Families with Children with SEN

The family plays a central role in the development of children's skills and abilities. During middle childhood (defined as ages 5–12), children are strongly influenced by family life experiences and the relational dynamics within the household. Family-related events affect children's participation in everyday activities as well as their life experiences during and

* Corresponding author: Agathi Stathopoulou

beyond this developmental stage. A deeper understanding of the family factors consistently associated with the daily participation of children with SEN can inform the development of appropriate family-centered interventions [4].

Raising a child with SEN can be a fulfilling journey filled with meaning and joy, yet it can also present significant challenges and caregiving burdens [1]. Most often, parents of children with SEN face numerous social and psychological challenges as they take on the caregiver role, which can have multiple adverse effects on the quality of care they provide [5]. These parents often experience profound shifts in family life, with increased responsibilities affecting various aspects of their lives. Prolonged stress from managing the child's daily needs and complex challenges may impair overall family functioning and well-being. Parents may be more vulnerable to psychological distress such as anxiety, sleep disturbances, and frustration. In addition, they may face significant financial burdens due to repeated hospitalization or the necessity of ongoing therapies and interventions. To enhance the well-being of parents of children with SEN, it is critical to identify both risk and protective factors for stress within this population [1].

1.2. Developing Specific Parental Skills to Address Challenges

Raising a child with SEN is a demanding process that requires highly developed skills for managing difficult situations. Parents of children who engage in repetitive behaviors or have impaired social abilities may be adversely affected. Because those around them often struggle to understand their children's behaviors, these parents may withdraw from their social networks and adopt ineffective problem-solving or coping strategies [6].

Problem-solving refers to the cognitive and behavioral processes aimed at reducing the discrepancy between a stressful situation and the desired outcome. It involves the ability to manage or adapt to sources of stress. In addition to the everyday challenges all individuals face, parents of children with SEN confront unique and often more complex difficulties both within the family and in their interactions with their child. As a result, finding effective solutions can be particularly challenging [6].

Problem-solving skills are especially critical for parents of children with SEN, as they foster psychological flexibility and control in the face of stress. A lack of effective stress management impairs parents' capacity to cope with demanding situations. Long-term exposure to stress may diminish an individual's sense of agency, and parents of children with SEN frequently face persistent difficulties, underscoring the need for well-designed support programs. Effective support planning depends on the accurate identification of family needs [6].

1.3. Parenting Programs

Parenting programs are focused, short-term interventions designed to help parents strengthen their relationships with their children and to prevent or manage a range of emotional and behavioral difficulties. Parental involvement in behavior modification began in the 1960s, when research demonstrated that parents could effectively reduce tantrums, self-injurious behavior, verbal aggression, excessive crying, speech difficulties, and antisocial or immature behavior by applying behavioral techniques. Initial research focused on individual families, while in the 1970s, studies expanded into group-based formats. Since then, group-based parenting programs have been implemented in many countries [7].

These programs are grounded in a variety of theoretical approaches and utilize techniques such as discussion, role-playing, video modeling, and homework assignments. Typically, parenting sessions last 8 to 12 weeks, with each session ranging from 1 to 2 hours per week. Programs can be delivered individually or in parent groups and generally follow structured curricula designed to increase parental knowledge, skills, and insight [7].

Parenting programs based on social learning theory have proven effective in preventing and treating mental health problems in children, enhancing parenting practices, improving family relationships, and promoting parental adjustment [8].

1.4. Parent Education Programs

The transition to parenthood is often a stressful and challenging period. Parent education refers to a process aimed at expanding parental knowledge, attitudes, and competencies concerning child development, the parent-child relationship, and self-awareness. These programs are founded on the belief that increasing parental knowledge will reduce anxiety, promote healthy parenting behaviors, and strengthen parent-child relationships. The aim is to enhance developmental outcomes for children. Parent education encompasses a range of activities designed to address specific learning needs that support children's physical, psychological, and social development [9].

A core premise of parent education is that many of the difficulties parents experience—especially in relation to caregiving stress—stem from knowledge deficits. Thus, prenatal and postnatal educational support is deemed essential in bridging these gaps (e.g., providing information about breastfeeding, nutrition, or child development). These programs assume that equipping parents with relevant knowledge will reduce their distress and foster positive changes in attitudes and behavior. These behavioral changes are, in turn, intended to help parents cultivate nurturing environments for their children [9].

Beyond simply imparting knowledge, parent education also aims to foster trust between parents and professionals, encourage peer connections, and reduce social isolation. Still, its primary focus remains on providing structured guidance to help individuals become more confident and effective parents [9].

Parents of children with SEN must be equipped with both support and training to face their unique challenges. Parent education is a critical factor in facilitating successful adaptation to their child's diagnosis, enhancing their capacity to support treatment plans, and fostering collaborative relationships with professionals. Research shows that parent education enhances understanding of diagnoses, strengthens caregiving skills, reduces parental stress, and improves overall family quality of life [10].

2. Methodology

2.1. Purpose of the Study

The aim of this study is to provide a comprehensive overview of recent developments regarding parental counseling for children with SEN. To achieve this, a systematic literature review was conducted focusing on international scientific articles on the topic. The primary research questions examined in this study concern:

- the types of family dysfunction that parental counseling for children with SEN aims to address, and
- the potential benefits of counseling interventions for parents of children with SEN.

2.2. Sources of Information

In the initial stage, relevant articles were identified and collected through electronic searches of the following databases: PubMed, Science Direct, and Scopus. The search terms (key words) used included: "Parents of children with special educational needs" OR "Parents of children with neurodevelopmental disorders" AND "Parental stress and coping" OR "Counseling parents" OR "Family support programs" OR "Counseling intervention" OR "Parent training" OR "Psychosocial group intervention".

2.3. Inclusion Criteria

Studies were included if they met the following criteria:

- Empirical studies focusing on parents of children diagnosed with ASD, Intellectual Disability, Psychiatric Disorders, or ADHD—conditions commonly associated with significant family dysfunction.
- Studies published between the years 2014 and 2024.
- Experimental studies describing specific counseling or intervention programs.
- Systematic reviews aimed at identifying primary research on intervention programs.
- Research samples involving children formally diagnosed with a neurodevelopmental disorder, including cases with documented comorbidities.

2.4. Exclusion Criteria

The following exclusion criteria were applied:

- Studies involving parents of children with Specific Learning Disabilities (SLD), as these conditions are not typically associated with significant family dysfunction.
- Studies in which children were receiving pharmacological treatment during the intervention.
- Theoretical literature reviews.

2.5. Data Extraction Flowchart

The PRISMA 2020 flow diagram was used to illustrate the process followed for identifying the studies included in this review.

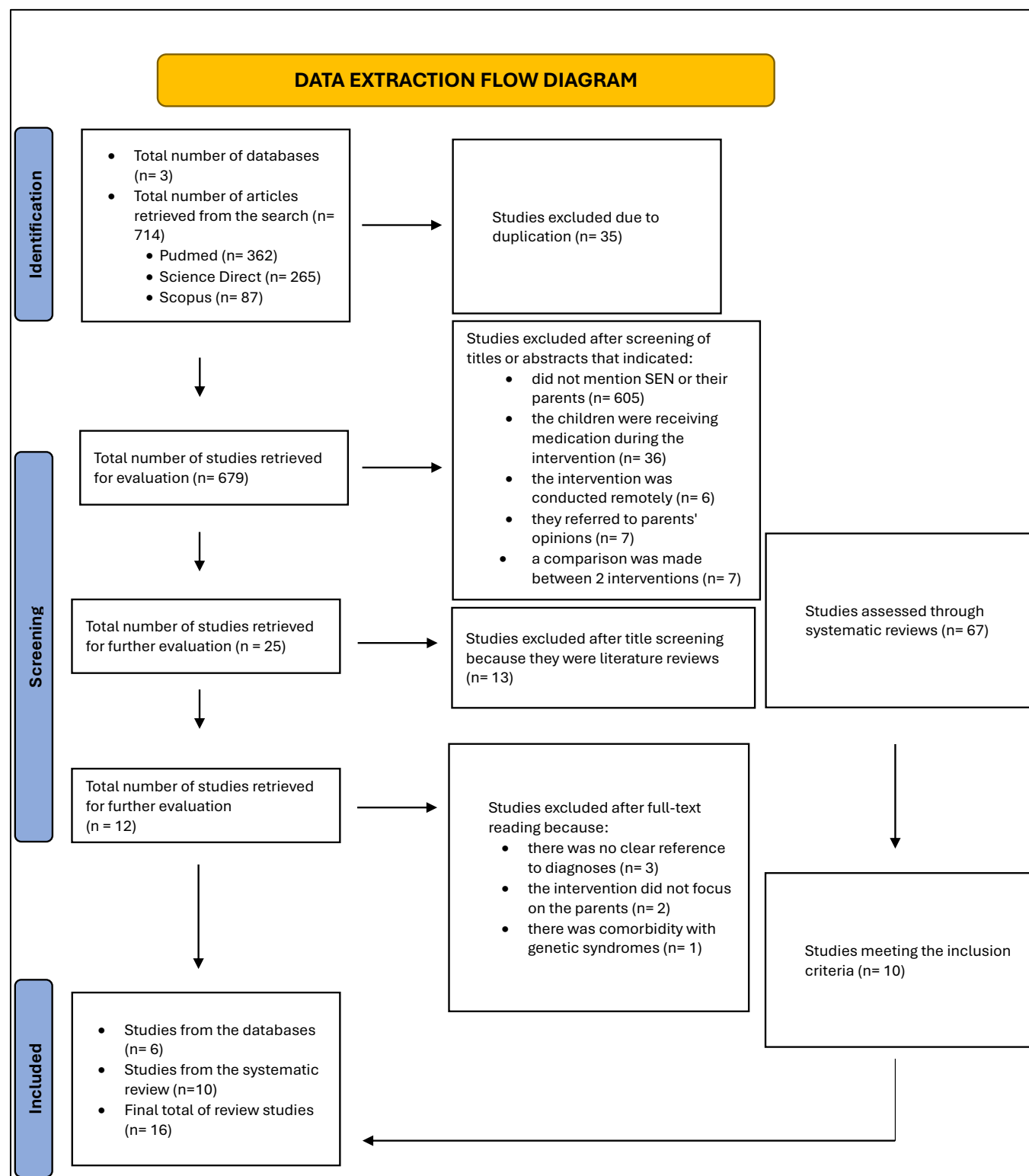


Figure 1 The Prisma Method

3. Results

In the study conducted by Boonsuchat [11], parental anxiety among parents of children with ASD was examined. Parents reported frequent headaches, elevated stress levels, and concern about the kind of individuals their children would grow up to become and how they would cope with life within society. The research sample consisted of 20 parents (10 in the experimental group and 10 in the control group). Using the Demographic Data Questionnaire and the State-Trait Anxiety Inventory (STAI) for parents of children with ASD, the study found that those who participated in a Group Counseling Program developed improved problem-solving abilities and greater autonomy in decision-making.

The study by Feng et al. [12] described a parent-child interaction training program tailored for preschoolers diagnosed with ADHD, offering a new perspective on early intervention strategies. The purpose of the study was to examine the efficacy of parent group therapy in reducing core ADHD symptoms and enhancing emotional, behavioral, and social functioning in preschool-aged children. A total of 123 parents of children aged 4 to 6 participated, with 62 assigned to the intervention group and 61 to the control group. Assessment tools included the ADHD Rating Scale (ADHD-RS), the Strengths and Difficulties Questionnaire (SDQ), and the Questionnaire for Children with Difficulties (QCD). The intervention aimed to provide parents with a systemic understanding of their child's behavior, promote insight, and facilitate change by adapting parent-child interactions and fostering a supportive environment. Analysis indicated that, by the end of the 2-month intervention, children in the treatment group exhibited significant improvement in emotional regulation, behavioral issues, hyperactivity symptoms, and peer interactions. Furthermore, daily functional performance improved, and academic-related difficulties were reduced. These therapeutic effects were maintained to some extent during the 6-month follow-up period, especially in relation to emotional challenges.

A study was conducted in 2014 to evaluate communication skills intervention by comparing a standard model with a version enhanced using a speech-generating device (SGD) [13]. The intervention sought to promote joint parent-child engagement and early social communication within the context of developmentally appropriate play. The sample consisted of 61 parents of children aged 5 to 8 years, all diagnosed with ASD and using fewer than 20 functional spoken words. Two intervention groups were formed: one received strategies based on the Joint Attention, Symbolic Play, Engagement, and Regulation (JASPER) framework combined with Enhanced Milieu Teaching (EMT), while the second group received the same approach supplemented with the use of an SGD. Findings demonstrated that parents gained greater competence in intervention strategies during the observation phase, with further improvement during active intervention. Notably, most children responded positively from the outset. The study concludes that increasing joint engagement time between parent and child is vital for establishing a foundation for developing social communication skills.

Haakonsen Smith et al. [14] aimed to assess whether a modified, personalized version of Coping Effectiveness Training (CET) could be feasibly applied to caregivers of children with ASD, with the future goal of integrating it into clinical settings such as genetic counseling sessions. The training focused on appraising stressors, managing emotions and problems, adapting to challenges, and employing ASD-related coping strategies. The sample included 28 parents of children with ASD (average child age: 5.4 years). Participants engaged in discussions about situations they felt either able or unable to manage, followed by psychoeducation on anxiety, appraisal processes, and coping mechanisms. Parents in the treatment group reported acquiring new information, identifying controllable aspects of their child's condition, and generating new approaches to stressful situations. Problem-solving strategies—such as breaking down stressors into manageable parts and identifying actionable solutions—were particularly beneficial.

Gengoux et al. [15] conducted a 24-week randomized controlled trial to evaluate the efficacy of Pivotal Response Treatment (PRT), a parent-training and in-home clinical intervention targeting children with ASD who exhibited limited verbal communication. Participants were parents of children aged 2 to 5 years with significant language delays. Language abilities ranged from nonverbal communication to short phrases, and most children were already receiving speech therapy. A total of 43 families completed the study (23 in the treatment group, 20 in the control group). Results showed that children in the treatment group demonstrated significantly greater overall improvements than those in the control group, including enhanced functional verbal expression and social communication behaviors, and increased word production as reported by parents. The study supports the effectiveness of combining parent training with clinician-delivered PRT for children with significant language delays.

Ho and Lin [16] investigated the effectiveness of two home-based parent-training programs focused on emotional development, adaptive functioning, and parenting skills. The study included 24 preschool-aged children with ASD (ages 36–59 months) and their parents, divided into an intervention and a control group. The intervention group engaged in child-led activities based on the children's interests, while the control group implemented parent-selected activities irrespective of the child's preferences. Activities were developmentally appropriate in both groups. Parents in the

intervention group attended additional workshops aimed at acquiring knowledge of the six functional developmental levels of the Developmental, Individual-Difference, Relationship-Based (DIR) model, as well as specific techniques associated with its application. In contrast, parents in the control group participated in sessions focusing on developmental milestones, including fine and gross motor skills and speech development. Parents received guidance from occupational therapists and were encouraged to interact with their children for at least 15 hours per week. Results indicated that the DIR-based home training program improved emotional functioning and enhanced parenting skills. Children in the intervention group exhibited greater emotional expressiveness and parental engagement than those in the control group.

Zand et al. [17] investigated the reduction of dysfunctional behaviors in children with ASD and improvements in family functioning. The sample included parents of children aged 2–12 years, recently diagnosed with ASD and presenting with moderate to severe behavioral issues. The Stepping Stones Triple P – Primary Care Positive Parenting Program consisted of sessions for 21 parents (12 in the intervention group, 9 in a waitlist control group) aimed at preventing and managing behavioral problems through education, skills-building, and confidence enhancement. Sessions were led by trained professionals (a social worker, a nurse, and a psychologist). Parents completed home assignments, such as monitoring the frequency and duration of problematic behaviors and recording challenges in applying the techniques. Findings showed that parents in the intervention group reported significant improvements in externalizing behaviors, parenting stress, and family functioning. The study underscores the importance of early behavioral intervention within the first year of diagnosis to optimize child and family outcomes.

Alquraini et al. [18] conducted a randomized controlled trial to assess the efficacy of Responsive Teaching (RT). The intervention aimed to enhance child functioning by fostering high-responsive parent-child interactions. The study involved 28 preschool-aged children with ASD (ages 3–5) and their mothers. The children exhibited moderate to severe delays in social and language development and fine motor skills, and mild delays in gross motor development. The treatment group received weekly RT sessions involving both parent and child, while the control group received standard community services. Each session targeted a developmental domain and taught parents 1–3 responsive interaction strategies. Mothers in the treatment group scored significantly higher on all four observational subscales—responsiveness, affect, encouragement, and teaching—compared to those in the control group. The findings suggest that the intervention effectively supported mothers in adapting their interactions and facilitated meaningful behavioral change. Children in the treatment group also showed marked improvements in social skills, language development, and fine motor coordination. Developmental functioning in children can be enhanced by encouraging high-responsive interactions during everyday routines using evidence-based strategies.

The study by Valeri et al. [19] examined the effectiveness of Cooperative Parent-Mediated Therapy (CPMT) in preschool-aged children with ASD. The aim was to compare CPMT with standard psychosocial interventions received by the control group, in order to assess whether CPMT offered specific benefits in addressing core ASD symptoms, particularly in social and communication skills. The study involved 34 children aged 2 to 6.11 years diagnosed with ASD. During the intervention, all participants received a Low-Intensity Psychosocial Intervention (LPI), implemented either at home or in educational settings by trained therapists. This intervention was based on the TEACCH model (Treatment and Education of Autistic and Communication Handicapped Children), focusing on core ASD symptoms with active parental involvement. CPMT aimed to enhance parenting skills and train parents to support their children in acquiring seven targeted developmental skills: socio-emotional development, play and cognitive flexibility, emotional regulation, imitation, communication, joint attention, and cooperative interaction. The findings indicated that parents in the intervention group did not experience an increase in stress related to parent-child interactions. Moreover, significant improvements were observed in the social and communication skills of the intervention group after 6 months. Indirect benefits were also reported regarding behavioral and emotional problems. In conclusion, CPMT contributed to improved social and communication skills, reduced symptom severity in ASD, and better emotional regulation and parental stress related to the parent-child relationship. The intervention's goal was to enable parents to create learning opportunities in everyday routines tailored to their child's developmental level.

Solomon et al. [20] evaluated the effectiveness of the Play and Language for Autistic Youngsters (PLAY) Project, a home-based consultation model designed to improve parent-child interaction, child development, and autism symptomatology. The sample included 128 parents (64 in the intervention group and 64 in the control group) of children aged 2.8 to 5.11 years diagnosed with ASD, with 112 completing the intervention and follow-up assessments. The intervention focused on the parent with the most daily interaction with the child. The control group received standard speech therapy through public services, typically two hours per week. Results demonstrated significant improvements in parent-child interactions without increasing parental stress. Additionally, gains were seen in children's socio-emotional development. Parents in the intervention group notably enhanced their sensitivity and ability to effectively engage their child in activities.

McDaniel et al. [21] investigated the combined effect of parent training through observed sessions and home visits by a clinician to improve communication deficits in children with ASD aged 2 to 5 years. The sample consisted of 48 participants (24 in each group), with 43 completing the study. Parent education sessions involved learning the intervention protocol, applying it clinically with their child, and practicing with clinician feedback. The control group continued receiving existing community-based services. Results indicated that the intervention group significantly improved in the frequency of functional expressions and expressive vocabulary compared to the control group after 24 weeks. However, no significant differences were found at the 12-week post-intervention follow-up. In conclusion, the findings support the intervention's effectiveness in enhancing foundational expressive communication skills crucial to language development in children with ASD.

The study by Turner-Brown et al. [22] explored the effects of the Family Implemented TEACCH for Toddlers (FITT) intervention on ASD symptoms, child skill development, and parental stress. The sample included 49 toddlers under the age of three (32 in the intervention group and 17 in the control group), all diagnosed with ASD. FITT is an early parent education and support program designed to help families understand how autism affects their child and how to implement behavior strategies that support communication, comprehension, and play. Findings revealed that FITT positively impacted parental stress and well-being and improved the toddlers' social communication. Overall, the study highlighted that interventions involving parents have a more substantial impact on parent-child interactions, though broader child outcomes were less pronounced.

Wanniachchi and Sumanasena [23] evaluated the role of play-based parental guidance in enhancing parent-child interaction to support socio-emotional, cognitive, and language development in young children with ASD. 30 parents of children aged 2 to 4 years, recently diagnosed with ASD, participated in a 3-hour guidance session. They were trained in parent-mediated, play-based interventions using video modeling to strengthen interaction. The sessions provided space for discussion of strategies to foster parent-child interaction. Results showed notable improvements in children's socio-emotional, cognitive, and language development following participation in play-based interventions. Parents expressed high satisfaction with the training, reported improved interaction skills, enjoyed spending quality time with their children, and developed more positive perceptions of them. The study underscores the importance of professional-led parental involvement in the support of children with ASD.

Schertz et al. [24] evaluated the effectiveness of Joint Attention Mediated Learning (JAML), an intervention aiming to improve early social communication in toddlers diagnosed with ASD. Participants included 144 families (73 in the intervention group and 71 in the control group), with children aged 16 to 30 months; 114 families completed the study. Three intervention coordinators guided weekly home sessions, teaching parents how to promote joint attention through play and everyday routines. Parents were encouraged to engage in 30-minute daily interactions and apply targeted strategies during daily routines. Findings showed improvement in prelinguistic social communication, as the intervention supported the development of foundational social skills. Children in the intervention group maintained these benefits 6 months after program completion. Improvements in communication synchrony, joint attention responses, and engagement in social approaches are emphasized as essential elements of successful early social communication. The results confirm the value of early interventions targeting prelinguistic communication and parent engagement in the learning process.

Nowell et al. [25] investigated the effectiveness of the Growing, Learning, and Living with Autism (GoriLLA) intervention, which integrates structured teaching and social thinking to improve social communication and self-regulation in early elementary school children with ASD and their parents. Parents actively participated by completing weekly home activities with their children aimed at acquiring and generalizing new skills. The study included 18 children (8 in the intervention group and 10 in the delayed-treatment control group), all in grades 1 or 2 and proficient in reading. Findings indicated that the intervention group showed significant improvements in knowledge and skills related to social communication and self-regulation during the intervention period, compared to the control group. Parents found the program highly valuable for teaching these skills and reported feeling empowered to support their child's development in both home and community settings. They also noted that their children enjoyed participating in the intervention.

Kong and Au [26] evaluated the effectiveness of the Incredible Years Basic Parent Training (IYPT) program in reducing parental stress and promoting positive parent-child interaction. The sample consisted of 52 parents of children aged 3–6 years with at least one diagnosed developmental disorder (including ASD, developmental delay in speech, cognition, or motor skills, ADHD, Pervasive Developmental Disorder (PDD), and intellectual disability); 47 parents completed the study. The IYPT curriculum includes four modules tailored to the child's developmental stage, aiming to develop parenting skills that foster social competence, emotional regulation, and academic success while reducing behavioral issues. The control group received no services during the intervention and was trained afterward. After 12 sessions,

parents in the intervention group reported reduced stress levels and a significant decrease in their children's oppositional behaviors compared to the control group. They also provided more praise, spent less time in irrelevant conversation, and engaged in more positive and child-centered dialogues. Improvements in joint attention behaviors—such as children responding with gestures or vocalizations—were noted, despite the children not receiving direct intervention. These findings highlight the indirect developmental benefits for children resulting from their parents' improved interaction strategies.

Last but not least, we want to emphasize how important digital technologies are in the field of inclusive education. ICTs enhance universal access to education, provide new strategies for effective teacher training, boost learning retention, promote teamwork, increase openness, develop learner-centered strategies, develop innovative teaching techniques, and quicken the pace of knowledge acquisition. Additionally, through virtualization, mobilization, artificial intelligence, and new learning environments-worlds, provide educational activities and methodologies with new tools for knowledge representation. More specifically, ICTs are very effective and productive in ADHD training. They facilitate and improve the assessment, intervention, and educational processes through mobile devices, which bring educational activities everywhere [27-28], and through a variety of ICT applications, which are the main supporters of education [29-44]. The use of AI, STEM, and robotics raises educational practices to new levels of adaptation, inventiveness, and performance [45-47], while games turn education into a multimodal, incredibly amiable, and pleasurable engagement [48-50]. Additionally, the adoption, enhancement, and fusion of ICTs with theories and models of metacognition, mindfulness, meditation, and emotional intelligence cultivation [51-65] places the development of mental abilities at the center of educational procedures and policies, which accelerates and improves educational practices and outcomes, particularly in parents inclusion and education.

4. Discussion

The aim of the present study was to investigate recent developments in the literature concerning parent counseling for children with Neurodevelopmental Disorders (NDD). Through a systematic literature review, the objective was to identify research studies focusing on interventions involving the parents of children with NDD.

Regarding the effective functioning of families with children diagnosed with NDD, the reviewed studies suggest a classification into three primary categories: (1) parental stress and the need to enhance parenting skills, (2) improvement of parent-child interaction, and (3) development of communication and socio-emotional skills.

More specifically, the first category addresses the high levels of parental stress and the need to develop parenting competencies related to managing symptoms arising from the child's diagnosis. Several studies aimed to reduce and manage the stress experienced by parents of children with developmental disorders. Parents expressed the need for guidance on how to handle stress-inducing situations and how to adapt to such challenges. The findings highlight parents' desire to strengthen their parenting skills and to improve overall family functioning and intra-family relationships. Overall, the guidance of a qualified professional appears to be helpful in supporting parents to better fulfill their roles, better understand their children's needs, and manage daily challenges. Additionally, parents expressed a strong need for training in strategies for navigating the often highly stressful demands of raising a child with NDD.

The second category emphasizes the need for parents to improve the quality of their interaction with their children. Research indicates that parents seek to enhance their ability to engage meaningfully with their children. They strive to better understand their children's needs, spend quality time with them through play, and communicate in ways that are developmentally appropriate.

The third category involves the need for children to acquire adequate communication and socio-emotional skills. According to the reviewed studies, parents—particularly those of children with ASD or ADHD—seek ways to enhance their children's social, emotional, cognitive, and language development. This may occur either through parent training using play-based activities or through direct interventions with the children themselves. In summary, when children can express their needs and desires, communication with those around them becomes more effective. Furthermore, parents report a sense of joy when their children develop skills that support peer relationships.

As for the benefits of parent counseling, the studies reviewed also support a threefold classification: (1) training in strategies for managing both parental stress and the daily challenges associated with raising a child with NDD, (2) enhancement of positive parent-child interaction, and (3) improvement of communication and socio-emotional skills.

More specifically, the first category refers to training in stress management strategies as well as approaches for addressing the challenges faced by children with NDD in daily life. The studies revealed that parents who participated

in intervention programs became a more supportive environment for their children, helping them manage emotions and behaviors and contributing to the reduction of symptoms. Moreover, parents discovered new ways of resolving stressful situations related to parenting, while also improving family interactions. The interventions were shown to significantly reduce parental stress, largely due to the support and education parents received in understanding developmental disorders and applying communication-enhancing strategies. Following such interventions, parents reported reduced anxiety, increased self-confidence in problem-solving, and improved decision-making skills.

The second category refers to the improved quality of parent-child interaction achieved through intervention programs. Parents enhanced their communication skills and interaction patterns, for example, through the use of interaction strategies that fostered both social and linguistic development in their children with developmental disorders. They also learned how to effectively motivate and engage their children in various activities. With professional guidance, parents became more responsive to their children's needs and were able to have more meaningful conversations. Consequently, parents felt that they were spending more quality time with their children during the interventions.

The third category pertains to the acquisition and development of communication and emotional expression skills, as well as the management of behavioral problems in children. After the interventions targeting both parents and children, improvements were observed in emotional regulation, peer relationships, and the development of spoken language in children with developmental disorders. Trained parents demonstrated enhanced communication with children who had limited verbal skills and facilitated language development through structured activities. Thus, parent-inclusive interventions contributed significantly to improvements in both communication and socio-emotional skills among children with NDD.

5. Conclusion

Based on the studies selected for this review, it can be concluded that parental involvement in the intervention and treatment of children with NDD is highly important—not only for the child's development and functionality but also for the parents' own mental well-being. In the studies referenced, parents expressed positive views about their active involvement in the intervention process, as it allowed them to learn practical strategies applicable to their daily routines with their children. Improvements in children's symptoms led to easier family life and, in turn, a reduction in parental stress.

Furthermore, most of the reviewed studies focused on counseling programs, parent training programs, and skill development interventions targeting both parents and children with NDD. Most of these programs were short-term duration. Lastly, the findings of this systematic review highlight that many parent counseling programs were directed at parents of children ASD and ADHD.

Compliance with ethical standards

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Disclosure of conflict of interest

The Authors proclaim no conflict of interest.

Statement of ethical approval

The Author had taken the approval of the appropriate committee of ethical and deontology on research

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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