

Review Article

Parent-Child Play And Playfulness Among Children With Disabilities: A Systematic Review

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ABSTRACT

Aim: This systematic review examines the role of parent-child play and playfulness among children with disabilities, and their impact on child development and parent-child relationships.

Method: A comprehensive literature search was conducted across multiple electronic databases, supplemented by reference list screening and hand-searching of relevant journals. Studies examining parent-child play and playfulness in children with disabilities were included based on predefined inclusion criteria. A total of 16 studies were identified and analysed.

Results: Findings indicate that symptoms associated with medical, developmental, or psychological conditions may negatively influence playfulness in children. However, active parental involvement and responsive interaction were consistently associated with increased playfulness. Parent-child play was also linked to improved parental self-efficacy, stronger parent-child relationships, enhanced emotional regulation, and positive developmental outcomes in children.

Conclusion: Parent-child play plays a significant role in supporting the emotional, social, and developmental wellbeing of children with disabilities, while also strengthening parental confidence and relationships.

Keywords: parent-child play, playfulness, children with disabilities, parental involvement, child development, systematic review

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INTRODUCTION

The time parents spend engaging in play with their children is increasingly constrained in today's fast-paced world. The American Academy of Paediatrics (2016) emphasises the importance of daily, high-quality interaction, highlighting play as a key medium through which parents understand their child's experiences, emotions, and individuality. Parent-child play fosters emotional bonding, enhances parental sensitivity, and supports children's social, emotional, and cognitive development.

Parenting a child with a disability presents additional emotional, social, and practical challenges. Following diagnosis, parents often experience stress, anxiety, and uncertainty,

which may have long-term implications for psychological wellbeing (Northouse et al., 2012). Financial strain, caregiving demands, and societal stigma further contribute to parental burden (Baker & Heller, 1996). Research consistently shows that parents of children with disabilities report higher levels of stress and poorer psychological wellbeing than parents of typically developing children (Ha et al., 2008; Seltzer et al., 2004), particularly in the context of autism spectrum disorder (ASD) (Bouma & Schweitzer, 1990; Koegel & Schreibman, 1992).

While much of the literature focuses on deficits and challenges, there is increasing interest in strength-based approaches that emphasise positive interactions and developmental opportunities. Parent-child play and playfulness represent one such domain. Playfulness is conceptualised as a relational construct involving creativity, flexibility, intrinsic motivation, and emotional engagement (Schaefer & Drewes, 2009; Landreth, 1983). Parental playfulness—defined as the ability to engage in responsive, flexible, and emotionally attuned interactions—has been associated with improved wellbeing and stronger parent-child relationships (Shorer, 2019; Yue et al., 2016).

Theoretical perspectives, including Winnicott's (1971) concept of transitional space, highlight the role of play in facilitating emotional development and bridging internal and external experiences. However, engaging in play may be more complex for parents of children with developmental conditions such as ASD, where social communication differences can affect interaction quality. Parent-mediated interventions have demonstrated effectiveness in improving both parental competence and child developmental outcomes (Kasari et al., 2010; Keen et al., 2010).

In low- and middle-income countries (LMICs), research on play among children with disabilities remains limited. Cultural beliefs, stigma, and restricted access to resources may constrain opportunities for play and participation. Although some studies have demonstrated the benefits of play-based interventions, the evidence base remains fragmented and lacks a comprehensive synthesis.

Despite growing recognition of the importance of play, there remains a limited understanding of how parent-child play and playfulness influence developmental and psychosocial outcomes.

Research question:

What is the role of parent-child play in influencing playfulness and developmental outcomes among children with disabilities?

METHODS

Study design Protocol and Registration

This review was not registered in PROSPERO. However, the methodology was defined a priori and conducted in accordance with established systematic review guidelines.

Study Design

This systematic review examined the role of parent-child play and playfulness among children with disabilities and their associated outcomes for children, parents, and families. The review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020) guidelines to ensure transparency, completeness, and methodological rigour. A PRISMA flow diagram (Figure 1) illustrates the study selection process.

Search Strategy

A comprehensive systematic literature search was conducted across multiple electronic databases, including JSTOR, EBSCOhost, PubMed, ProQuest, PsycINFO, and Google Scholar.

Studies published between 1997 and 2019 were included. This extended timeframe was selected due to the limited availability of empirical research specifically focusing on parent–child play and playfulness among children with disabilities. Earlier foundational studies were therefore included to ensure a comprehensive synthesis of the evidence base and to capture the development of concepts in this field.

Search terms were organised across four key domains:

1. Children (e.g., “child*”, “children with disabilities”)
2. Parents/caregivers (e.g., “parent*”, “caregiver”)
3. Play (e.g., “play”, “parent–child play”)
4. Playfulness (e.g., “playfulness”, “interaction”)

Boolean operators (AND, OR), truncation, and wildcard variations were used to maximise search sensitivity. Search strategies were adapted for each database. A sample PsycINFO search string was:

(“child*” OR “children with disability*”) AND (“parent*” OR “caregiver*”) AND (“play” OR “parent-child play”) AND (“playfulness” OR “interaction”).

Reference lists of included studies and relevant reviews were also hand-searched to identify additional eligible studies.

Inclusion and Exclusion Criteria

Inclusion Criteria

Studies were included if they were empirical in nature, including quantitative, qualitative, or mixed-methods designs, and examined parent–child play and/or playfulness. Eligible studies also needed to include children with a diagnosed disability or developmental condition and report outcomes related to children, parents, or overall family functioning. In addition, only studies published in peer-reviewed journals and written in English were considered for inclusion.

Exclusion Criteria

Studies were excluded if they focused exclusively on adolescents or adults. Review articles, commentaries, editorials, and grey literature were also excluded from the analysis. In addition, studies were not included if they did not examine parent–child play or playfulness as a primary variable of interest.

Study Selection Process

All identified records were imported into a reference management system, and duplicates were removed. Study selection followed a two-stage screening process in line with PRISMA guidelines:

1. Title and abstract screening
2. Full-text review for eligibility

A total of 35 studies were initially identified. After removal of duplicates and screening, 16 studies met the inclusion criteria and were included in the final review. Reasons for exclusion at the full-text stage are reported in the PRISMA flow diagram (Figure 1).

Data Extraction and Synthesis

Data were extracted using a structured data extraction form developed in Microsoft Excel (2013). Extracted information included author(s), year of publication, sample characteristics, study design, and key findings. These data were tabulated and presented in Annex Table 1. A narrative synthesis approach was adopted due to heterogeneity in study designs, populations, and outcome measures. Findings were organised thematically to identify patterns related to parent–child play, playfulness, and associated developmental and psychosocial outcomes.

Quality Appraisal and Risk of Bias

The methodological quality and risk of bias of included studies were assessed using the Joanna Briggs Institute (JBI) critical appraisal tools, with checklists selected according to study design (e.g., qualitative, cross-sectional, quasi-experimental).

Each study was assessed using predefined criteria, including the clarity of research questions, appropriateness of the study design, sampling strategy, validity of measures, and clarity of reporting. Each criterion was rated as “Yes,” “No,” “Unclear,” or “Not applicable.” Based on the total proportion of criteria met, studies were categorized as having a low risk of bias ($\geq 70\%$), moderate risk of bias (50–69%), or high risk of bias ($< 50\%$). Screening and quality appraisal were independently conducted by two reviewers, with any disagreements resolved through discussion. The findings were summarized in Annex Table 1 and interpreted in relation to methodological quality to ensure a balanced and rigorous synthesis of the evidence.

Ethical Considerations

The authors declare that no ethical issues were involved in the preparation of this review article. All cited literature is properly credited, and no original research on humans or animals was conducted.

RESULTS

Study Selection

A total of 35 records were initially identified through database searching and additional sources. After removal of duplicates and screening of titles and abstracts, full-text articles were assessed for eligibility. Sixteen studies met the inclusion criteria and were included in the final synthesis. Reasons for exclusion at the full-text stage are presented in the PRISMA flow diagram (Figure 1).

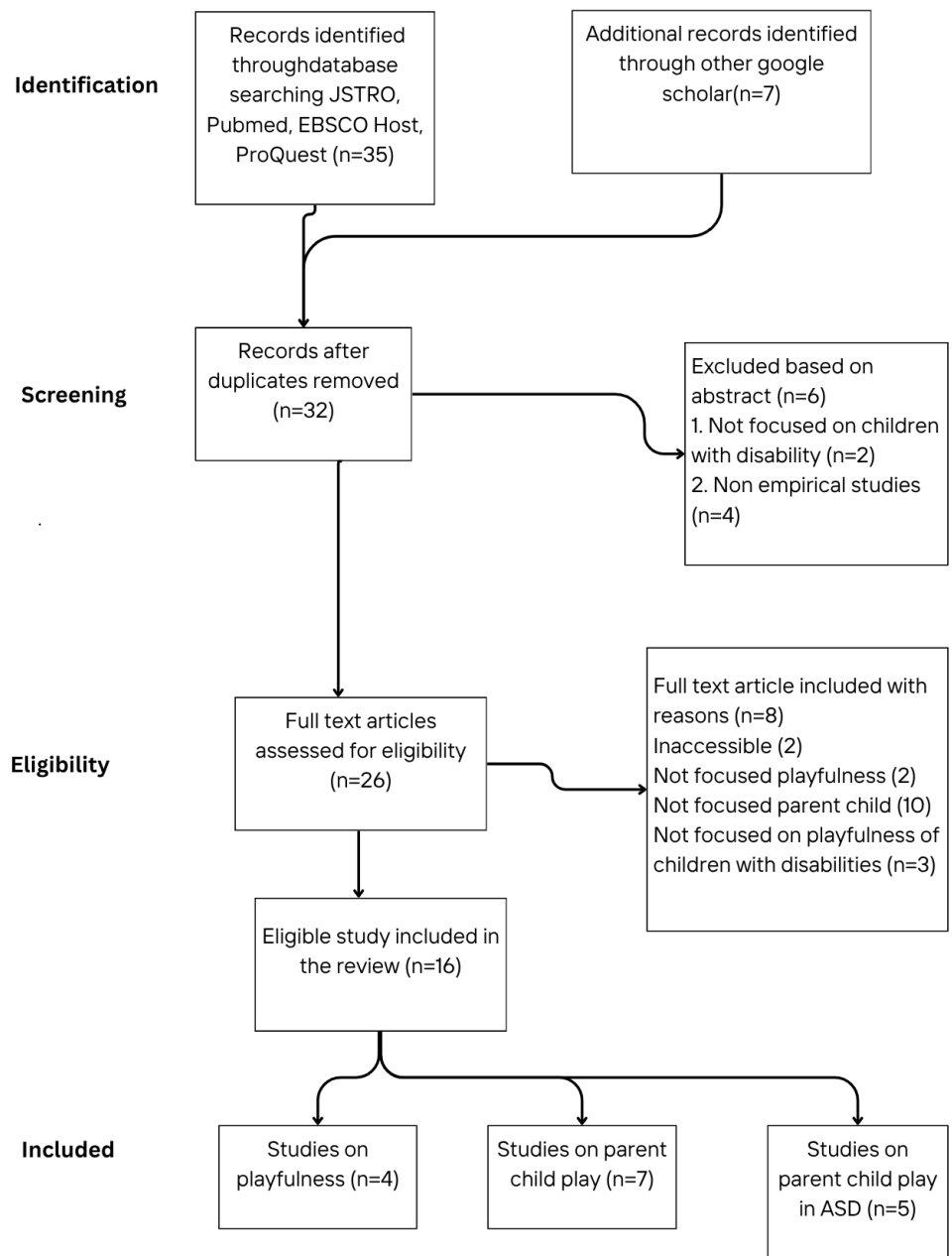


Figure 1. Presents the flow chart on the number of identified abstracts, reasons for exclusion, and articles that were further considered.

Study Characteristics

The characteristics of the included studies are summarised in Annex Table 1, including author, year of publication, sample characteristics, study design, and key findings. The included studies were published between 1997 and 2019 and varied in methodological design, including qualitative, quantitative, and intervention-based approaches.

Thematic Synthesis of Findings

Findings from the included studies were synthesised narratively and organised into three overarching themes: (1) playfulness in parents, (2) playfulness in children, and (3) parent–child play interactions.

Theme 1: Playfulness in Parents

1.1 Parental Playfulness and Self-Efficacy

Evidence examining parental playfulness in the context of disability was limited but suggests a meaningful association with parental self-efficacy. Quantitative findings indicated that higher levels of adult playfulness were associated with greater emotional parental self-efficacy during play interactions. In addition, child-related factors, particularly sensory processing characteristics, were identified as significant predictors of parental self-efficacy, highlighting the influence of child presentation on parental confidence. Qualitative findings further suggested variation in parental self-efficacy across caregivers, with fathers reporting higher confidence in play interactions than mothers, potentially reflecting differences in motivational orientation and engagement styles during play.

1.2 Parental Beliefs, Engagement, and Facilitation of Play

Beyond self-efficacy, parental attitudes and engagement in play emerged as important factors. Parents were found to value play as a meaningful context for interaction and actively supported their child's engagement, often adapting their involvement to the child's developmental level. Intervention-based and observational studies also indicated that structured and activity-based play contexts, such as music-based interactions, were associated with increased child engagement and social interaction. These findings suggest that parental facilitation and the nature of play activities contribute to the quality of play experiences.

Theme 2: Playfulness in Children

2.1 Impact of Disability on Child Playfulness

Across studies, children with disabilities were generally reported to demonstrate lower levels of playfulness compared to typically developing peers. This pattern was observed across a range of conditions, including autism spectrum disorder (ASD), cerebral palsy, and developmental delays. However, findings also indicated variability in play profiles depending on the type of play assessed. For example, children with ASD were observed to demonstrate higher levels of exploratory play, with no significant differences in symbolic play when compared to typically developing peers. These findings suggest that playfulness in children with disabilities may be uneven across different play domains rather than uniformly reduced.

2.2 Influence of Context and Parent–Child Interaction

Child playfulness was consistently influenced by both environmental and relational factors. Contextual elements, such as structured versus unstructured play settings, were found to affect observed play behaviours. Parental responsiveness, interaction style, and emotional availability were identified as key contributors to variations in child playfulness. Evidence suggests that playfulness is not solely determined by developmental factors but is shaped through ongoing interaction between the child and their environment, particularly within parent–child relationships.

Theme 3: Parent–Child Play Interactions

3.1 Collaborative and Interactive Play

Collaborative play between parents and children was consistently associated with increased engagement and more complex play behaviours. Children demonstrated higher levels of exploratory and symbolic play during interactive play with caregivers compared to solitary contexts. Parental behaviours such as responsiveness, guidance, and emotional engagement were linked to improved child participation. Additionally, interactional qualities such as mutual initiation and compliance within play were associated with better social competence outcomes, highlighting the importance of reciprocal engagement in play interactions.

3.2 Parent Play Strategies in ASD

Distinct patterns of parental behaviour were observed in families of children with ASD. Parents of children with ASD were more likely to initiate play interactions and adopt structured or directive strategies compared to parents of typically developing children. These adaptations may reflect attempts to support engagement and compensate for reduced child-initiated interaction. Evidence from intervention studies further indicated that parent-implemented strategies, including structured play routines and script-fading techniques, were associated with improvements in children's communicative and social engagement during play.

3.3 Parent–Child Interaction Interventions

Intervention-based studies suggested that approaches targeting parent–child interaction during play may support improvements in child engagement and playfulness. Interactive and relationship-focused play interventions were associated with more positive outcomes compared to approaches focused solely on child-directed developmental skills. However, the evidence base remains limited, and findings should be interpreted as preliminary, indicating potential benefits rather than definitive conclusions.

DISCUSSION

This review aimed to examine the effects of parent–child play and playfulness among children with disabilities. Overall, the findings highlight the importance of both parental playfulness and structured parent–child play, while also revealing significant gaps and inconsistencies in the literature.

Playfulness in Parents

The review identified a limited number of studies examining parental playfulness in the context of disability, indicating a significant research gap. Available evidence suggests that parental playfulness is positively associated with parental self-efficacy. Quantitative findings indicate that adult playfulness predicts emotional parental self-efficacy, while child-related factors, particularly sensory processing characteristics, also influence parental confidence during play interactions.

Qualitative evidence further suggests variability across caregivers, with fathers reporting higher self-efficacy and emotional engagement during play compared to mothers, who tend to adopt a more outcome-oriented approach focused on developmental goals. In addition, observational findings indicate that parents value play and actively support their child's engagement, adapting their involvement based on the child's developmental level. Structured play contexts, including activity-based approaches such as music-based interactions, were also associated with increased child engagement and social interaction.

Critical Analysis: While these findings highlight the potential role of parental playfulness and engagement, the evidence base remains limited and is largely concentrated within ASD populations. Existing studies primarily rely on self-report or small qualitative samples, with few observational or longitudinal designs. Furthermore, parental playfulness has not been examined as a multidimensional construct (e.g., emotional, cognitive, or behavioural domains), and little is known about how it varies across different disability types or cultural contexts. Future research should adopt more rigorous and diverse methodologies to better understand how parental playfulness influences both parent and child outcomes over time.

Playfulness in Children

Children with disabilities, including ASD, cerebral palsy, and developmental delays, were generally reported to demonstrate lower levels of playfulness compared to typically developing peers. However, findings suggest that playfulness is not uniformly reduced across all domains. For example, children with ASD were observed to demonstrate higher levels of exploratory play, with no significant differences in symbolic play compared to

typically developing children. This indicates that playfulness profiles may vary depending on the type of play assessed.

Environmental and relational factors also play a critical role. Structured or adult-facilitated contexts were associated with increased play engagement, suggesting that environmental support can enhance play behaviours. Additionally, parental responsiveness, emotional availability, and interaction style were consistently linked to variations in child playfulness, highlighting the importance of relational context in shaping play outcomes.

Critical Analysis: Although many studies report reduced playfulness in children with disabilities, methodological variability—such as differences in assessment tools (e.g., observational coding vs. standardised measures), age ranges, and play contexts—limits direct comparison across studies. Furthermore, few studies examine how the developmental stage interacts with playfulness or how specific disability characteristics influence different types of play (e.g., exploratory vs. symbolic). There is also limited integration of measurement validation studies, despite evidence supporting the reliability of commonly used play assessment tools. These gaps highlight the need for more standardised and developmentally sensitive approaches to studying playfulness.

Parent–Child Play, Down Syndrome and Mixed Disabilities

Collaborative parent–child play consistently emerged as beneficial across studies. Children demonstrated higher levels of exploratory and symbolic play during interactive play with caregivers compared to solitary contexts. Emotional engagement from parents, including both mothers and fathers, was associated with more complex play behaviours.

Parental behaviours such as responsiveness, direction, and support were found to facilitate child engagement. Mothers were often observed to adopt more directive and supportive roles, while children’s play behaviours reflected their developmental level, indicating that parental scaffolding plays a key role in supporting engagement and learning. Additionally, interactional qualities such as mutual initiation and compliance were linked to improved social competence, underscoring the importance of reciprocal engagement during play.

Critical Analysis: Despite consistent evidence supporting the benefits of collaborative play, most studies focus on small samples and specific caregiver roles, particularly mothers. Father–child interactions and broader family dynamics remain underexplored. In addition, limited research compares the effectiveness of different play strategies across disability types, restricting the generalisability of findings.

Autism Spectrum Disorder

Distinct interaction patterns were observed in families of children with ASD. Parents were more likely to initiate play interactions and use directive or structured strategies compared to parents of typically developing children. These behaviours appear to function as compensatory mechanisms to support engagement in children who may demonstrate reduced spontaneous initiation.

Intervention-based studies further suggest that parent-mediated strategies, such as structured play routines, script-fading techniques, and activity-based interventions, can improve children’s communicative and social engagement during play. However, findings also indicate that children’s engagement may vary across interaction partners and contexts, with some evidence suggesting greater responsiveness in interactions with siblings or other adults.

Critical Analysis: Although intervention studies demonstrate promising short-term outcomes, they are often limited by small sample sizes, short durations, and a lack of longitudinal follow-up. Most studies focus on immediate behavioural changes, with limited

exploration of broader developmental outcomes such as emotional regulation, relationship quality, or long-term social competence. Additionally, cultural and contextual influences on parent–child play in ASD populations remain largely unexamined.

Implications for Future Research

To advance the field, future studies should:

- Examine both global and domain-specific parental playfulness across different disabilities and cultural contexts.
- Incorporate longitudinal designs to assess sustained effects of parent–child play and playfulness.
- Explore father–child, sibling–child, and broader family dynamics in play interactions.
- Investigate how environmental structure, sensory characteristics, and relational factors interact to influence playfulness.
- Develop and utilise standardised, validated tools for assessing play and parent–child interaction across diverse populations.

Implications of the Study

This review highlights the critical role of parental playfulness and parent–child play in promoting wellbeing among children with disabilities and their caregivers, with important implications for low- and middle-income country (LMIC) contexts.

Parental Wellbeing

Parents of children with disabilities often experience increased stress, reduced self-efficacy, and social isolation. The findings suggest that engaging in playful interactions may enhance parental emotional regulation, confidence, and perceived competence. In LMICs, where access to specialised services may be limited, promoting play-based parent training can serve as a cost-effective and accessible intervention.

Child Development

Playful parent–child interactions support children’s social, emotional, and communication development. When parents are actively engaged and responsive, children demonstrate increased participation and improved developmental outcomes. In resource-limited settings, empowering parents as facilitators of play may help address gaps in early intervention services.

Professionals and Service Delivery

The findings provide guidance for professionals working with children with disabilities. Integrating play-based, family-centred approaches into community programs, schools, and early intervention services may enhance accessibility and effectiveness. Training for practitioners should include strategies to support parent–child play and address cultural and contextual barriers.

Limitations

Several limitations must be considered:

1. Small and uneven evidence base: Only a limited number of studies addressed parental playfulness, and many used small or convenience samples.
2. Methodological variability: Differences in study design, measurement tools, and play contexts limit comparability across studies.
3. Short-term focus: Many studies examined immediate outcomes, with limited longitudinal evidence.
4. Lack of contextual diversity: Most studies were conducted in high-income countries, with minimal representation from LMIC settings.

5. Database coverage limitations: Although major databases were included, the exclusion of Scopus and Web of Science due to access constraints may have limited the comprehensiveness of the literature search.

These limitations highlight the need for more rigorous, context-sensitive research that captures the complexity of parent–child play across diverse populations.

CONCLUSION

This review demonstrates that **parental playfulness and parent-child play are key factors in enhancing child development and parental well-being**, particularly for children with disabilities. The evidence suggests that structured, playful interactions can improve emotional regulation, communication, and social engagement, but gaps remain, especially in LMIC contexts.

Policy Recommendations

- Integrate parent-child play and playful interaction training into **national early intervention and disability support programs**.
- Promote awareness campaigns to **reduce stigma surrounding disability**, emphasizing the importance of play in child development.
- Ensure **equitable access to resources and services**, including community-based and school-based play interventions in resource-limited settings.
- **Practice Recommendations**
- Train parents and caregivers in **playful interaction strategies**, including low-cost, culturally appropriate activities.
- Encourage **family-centered approaches** where fathers, siblings, and extended family members are involved in play interventions.
- Adapt interventions to **resource-constrained environments**, leveraging community centers, schools, or digital platforms where possible.

Research Recommendations

- Conduct **longitudinal, LMIC-focused studies** to explore the impact of parental playfulness and parent-child play in diverse cultural and socioeconomic settings.
- Investigate **interventions targeting both parents and children**, including script-fading, music-play, and structured collaborative play.
- Examine **father-child interactions, sibling involvement, and community-level factors** to understand broader influences on playfulness.
- Develop **standardized, culturally validated tools** to assess playfulness and parent-child interaction outcomes across settings.

In conclusion, promoting **playfulness in parents and parent-child play** offers a low-cost, scalable strategy to enhance the well-being of both children with disabilities and their families, especially in LMICs where access to specialized services is limited. Future research and policy must address existing gaps to support the holistic development of children with disabilities and empower their caregivers in real-world, resource-constrained contexts.

Data Availability Statement: All data used in this review are from published studies and are available from the respective sources.

Competing Interests: The authors declare no competing interests.

Declaration of interest statement: The authors declare that they have no known competing financial, professional, or personal interests that could have influenced the work reported in this manuscript.

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Annex

Table 1: Summary of the characteristics of the eligible studies and their key findings.

Playfulness among parents and children with disabilities

Authors, year of publication	Sample description	Design	Measures / Method	Summary of Results
Roman, Reynolds, Feliciano, Cabrera, & Vega (2017)	136 parents of children diagnosed with ASD aged 3–7 years	Quantitative study	Short Sensory Profile; Playfulness Scale for Adults; Parenting Self-Efficacy Tool	Child sensory profile was a key predictor of parental self-efficacy. Findings suggest evaluating interventions based on parental playfulness and self-efficacy.
Rosa, Veronica, Yoliannie, Jorg, Keyshla, Samariz, & Luis (2018)	8 parents of children aged 3–7 years with ASD	Qualitative study	Semi-structured interviews	Parents linked self-efficacy to play experiences and emotional engagement. Fathers reported higher self-efficacy than mothers due to differences in motivation.
Buchanan (2009)	3 toddlers with disabilities and their mothers	Qualitative study	Home-based observation of play	Children’s play reflected developmental level. Mothers supported play engagement and valued play highly.
Grace, Emily, & Ian (2018)	9 mother–child dyads	Qualitative study	Content analysis of weekly play sessions	Music-based play increased perceived child engagement and social interaction.

Parent–child play among children with Down syndrome and other disabilities

Authors, year of publication	Sample description	Design	Measures / Method	Summary of Results
Okimoto, Bundy, & Hanzlik (2000)	38 children (CP, developmental delays, TD) playing with mothers	Quantitative study	Test of Playfulness (ToP)	Children with disabilities showed lower playfulness than TD peers; parent–child interaction supports play expression.
Hamm (2006)	20 children with disabilities and 20 TD children (6–38 months)	Quantitative study	ToP; TOES	ToP and TOES were reliable/valid; children with disabilities were less playful.
Chiarello, Huntington, & Huntington (2006)	20 children and their parents	Qualitative study	Home video-recorded play sessions	Similar play behaviours with both mothers and fathers; importance of both parent roles in play.
Paola, Simona, Zeno, & Marc (2008)	28 children with Down syndrome and mothers	Qualitative study	Observational coding	Children showed more exploratory play during mother–child interaction than solitary play.
Falco, Esposito, Venuti, & Bornstein (2008)	19 children with Down syndrome and fathers	Quantitative study	Play coding; Emotional Availability Scales	Father–child emotional engagement was linked to increased symbolic play.

Authors, year of publication	Sample description	Design	Measures / Method	Summary of Results
Roach, Barratt, Miller, & Leavitt (1998)	28 mothers and children with Down syndrome	Qualitative study	Observational analysis	Mothers were more directive and supportive compared to TD groups.
Eric, Jacquelyn, & Gregory (1997)	35 preschoolers and parents	Quantitative study	Video coding and interviews	Higher mutual initiation and compliance linked to better social competence.

Parent-child play among children with Autism Spectrum Disorders

Authors, year of publication	Sample description	Design	Measures / Method	Summary of Results
Stephanny & Con- nie (2013)	16 ASD dyads and 16 TD dyads	Quantitative study	Structured play observation	Parents of children with ASD initiated more play acts and used more directive strategies.
Nabil & Raymond (1999)	9 families with a child with autism	Qualitative study	Dyadic play observation	Parents initiated more interactions; siblings received more child-initiated play.
Kara & Thomas (2009)	3 mothers of children with autism	Qualitative study	Script-fading intervention	Increased scripted and spontaneous vocal initiations during play.
Pinchover, Shulman, & Bundy (2016)	29 children with ASD and 32 TD children (3–6 years)	Quantitative study	Observational play assessment	Playfulness differed by context; environment influences play behaviour.
Bentenuto, Simona, & Paola (2016)	75 mothers and children with ASD	Quantitative study	Coding of exploratory and symbolic play	Children with ASD showed higher exploratory play; no differences in symbolic play.

Note. Summary of empirical studies on parent-child play and parental playfulness among children with disabilities. The number of studies reviewed on parental playfulness is 8 and on parent-child play is 10.