

Review

Practical Challenges Faced by Fathers in Participating in Parent-Child Games Breakthrough Path Research

Jin Bi^{1,*}, Zhaojie Cao¹ and Yangwei Zhu¹

¹ Sichuan University of Light Industry and Chemical Technology, Zigong, China

* Correspondence: Jin Bi, Sichuan University of Light Industry and Chemical Technology, Zigong, China

Abstract: Parent-child games represent a distinctive and developmentally significant gaming model within the broader spectrum of recreational activities available to families. Collaborative play between children and their fathers holds considerable importance for early childhood development, contributing to cognitive, emotional, and social growth. This review systematically examines the practical challenges that fathers encounter when participating in parent-child games. Current barriers to meaningful father participation include role ambiguity within the family context, a limited understanding of the developmental value embedded in play activities, insufficient allocation of dedicated playtime, inadequate physical and psychological play environments, restricted game formats that fail to engage diverse interests, and weak collaboration between home and school settings. To maximize fathers' contributions to parent-child games and foster more effective parent-child interaction, this paper proposes a comprehensive breakthrough path. Key recommendations include clarifying paternal roles in play contexts, updating cognitive frameworks regarding the significance of father-child play, optimizing the allocation of familial and institutional resources, establishing consistent and supportive play environments, integrating diverse game types to accommodate varying developmental stages, enriching content diversity to sustain engagement, and strengthening home-school partnerships to create a cohesive support network. These strategies collectively aim to enhance the quality and frequency of father involvement in parent-child games, ultimately promoting healthier family dynamics and more robust child development outcomes.

Keywords: father involvement; parent-child games; parent-child interaction; early childhood development; family dynamics

1. Introduction

In recent years, national policy initiatives and legislative developments in China have placed growing emphasis on family education as a foundational component of holistic child development, with particular attention directed toward strengthening the role of fathers [1]. The enactment of the Family Education Promotion Law in 2021 represented a significant institutional advancement, formally establishing parental responsibility for family education within the national legal system. This law explicitly affirms the principle of joint parental participation, thereby reinforcing the expectation that both mothers and fathers share equitable responsibility in nurturing children's growth. Complementing this legislative foundation, the Guidelines on Enhancing Collaborative Education Mechanisms Among Schools, Families, and Society, issued in 2023, articulated a tripartite framework wherein families bear primary accountability—responsibility that inherently encompasses active, sustained, and substantive paternal engagement. These coordinated policy instruments reflect a consistent and deliberate orientation toward redefining fatherhood as an engaged, responsive, and co-equal dimension of family-based learning [2]. Empirical evidence further underscores that father-child play interactions contribute distinctively to developmental outcomes, including enhanced executive functioning, improved peer interaction competence,

Received: 06 June 2026

Revised: 20 July 2026

Accepted: 01 August 2026

Published: 04 August 2026



Copyright: © 2026 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

greater emotional regulation capacity, and stronger motor coordination. Despite such well-documented advantages, observational and survey-based studies consistently indicate persistent gaps in the frequency, quality, and consistency of fathers' involvement in play-oriented educational activities at home. This study therefore undertakes a systematic examination of structural, cultural, and institutional barriers limiting paternal participation, viewed specifically through the lens of home-school collaborative mechanisms, and advances contextually grounded, actionable strategies to foster deeper, more sustained, and pedagogically meaningful father-child play engagement.

2. The Value Implications of Father Participation in Parent-Child Games

2.1. Promoting Cognitive Development

In parent-child play, fathers frequently exhibit interaction styles that differ meaningfully from those of mothers, often emphasizing open-ended questioning, physical engagement, and adventure-oriented exploration to actively stimulate children's cognitive processes. During activities such as building with blocks, assembling mechanical models, or solving multi-step puzzles, fathers tend to scaffold learning by posing thought-provoking questions, encouraging trial-and-error experimentation, and resisting the impulse to supply immediate solutions. This pedagogical stance nurtures intrinsic motivation, sustained attention, and metacognitive awareness—key precursors to advanced reasoning. Empirical evidence indicates that consistent paternal participation in such structured yet flexible play contexts correlates strongly with enhanced performance in spatial visualization tasks, numerical estimation accuracy, and pattern recognition abilities. These competencies collectively contribute to stronger foundational skills in mathematics and science-related domains. Moreover, the unique temporal and behavioral rhythms of father-child play—often characterized by higher energy levels, greater physicality, and tolerance for ambiguity—appear to complement maternal interaction patterns, thereby enriching the child's overall cognitive ecology. Such synergistic contributions support holistic neural development, particularly in prefrontal and parietal regions associated with executive function and spatial processing [2].

2.2. Cultivating Social Literacy

Family games constitute vital experiential contexts for children's social development, offering structured yet flexible opportunities to internalize shared expectations, collaborative practices, and respectful communication patterns. Within these interactions, fathers often assume a distinctive facilitative role—emphasizing clarity, consistency, and mutual respect in the application of game-related guidelines. Through both cooperative and turn-based activities, they model and scaffold children's understanding of fairness, accountability, and procedural integrity, reinforcing that rules serve collective well-being rather than individual advantage. Children learn to articulate preferences clearly, listen actively to others' perspectives, seek mutually agreeable solutions, and recognize emotional cues in themselves and peers [3–5]. These experiences cultivate foundational competencies including perspective-taking, self-regulation, constructive dialogue, and shared goal orientation [6–8]. Over time, such repeated, guided practice strengthens prosocial dispositions, enhances group cohesion awareness, and supports the formation of trusting, reciprocal peer relationships—all essential for successful participation in classroom settings, extracurricular teams, and broader community environments.

2.3. Nourishing Emotional Nourishment

A father's consistent, warm, and responsive involvement plays a pivotal role in cultivating children's emotional well-being and psychological stability. Through sustained physical engagement—such as gentle touch, shared movement, and playful interaction—as well as affirming verbal communication and co-participation in meaningful daily activities, fathers contribute significantly to the formation of secure attachment bonds. These relational experiences lay a foundational framework for children's developing self-awareness, enabling them to identify internal affective states

with increasing accuracy and articulate feelings in developmentally appropriate, socially constructive ways [3, 9]. Over time, such supportive paternal presence fosters adaptive coping strategies, enhances capacity for managing everyday challenges, and strengthens overall psychological endurance. Empirical evidence indicates that children who regularly engage in interactive, emotionally attuned play with their fathers exhibit more balanced affective responses, greater flexibility in adapting to change, and improved capacity to maintain composure during periods of stress or uncertainty. This contributes meaningfully to long-term mental wellness and supports the cultivation of confident, grounded, and socially competent individuals.

2.4. Enhancing Physical Fitness

Fathers frequently take an active and energetic role in physically oriented parent-child interactions, often initiating and facilitating dynamic, full-body activities such as running, jumping, throwing, climbing, and balancing games. These structured yet playful engagements significantly contribute to the development of gross motor skills, including bilateral coordination, postural stability, spatial awareness, and neuromuscular control. Through consistent modeling of correct movement patterns and providing real-time, constructive feedback on posture and technique, fathers support the safe acquisition of foundational physical competencies. Such involvement not only strengthens muscular endurance, cardiovascular capacity, and joint mobility but also reinforces positive attitudes toward regular physical activity. Longitudinal observation suggests that early exposure to guided, joyful movement experiences correlates with sustained participation in sports and recreational exercise during adolescence and adulthood. Furthermore, the emotional security fostered during these shared physical endeavors enhances motivation, self-efficacy, and resilience—key psychosocial determinants of lifelong health behavior. Emphasis remains on inclusive, age-appropriate, and safety-conscious practice aligned with national physical education guidelines [10, 11].

2.5. Building Synergistic Educational Efforts

Father participation in parent-child games constitutes a meaningful and constructive dimension of family education, reflecting the evolving understanding of shared responsibility in child development. Such involvement not only supports equitable distribution of caregiving tasks within the household but also contributes to maternal well-being by easing daily childcare demands. Through structured and unstructured play interactions—such as cooperative storytelling, joint problem-solving with age-appropriate puzzles, or imaginative role-play—both parents gain richer, real-time insights into their child's cognitive, emotional, social, and linguistic growth trajectories. These shared observational experiences foster mutual understanding and alignment in educational values, expectations, and responsive strategies, thereby strengthening family cohesion and pedagogical consistency. Furthermore, consistent paternal engagement provides children with diverse relational models, enriching their capacity for empathy, communication, and self-regulation. It also supports the natural formation of balanced perspectives on interpersonal roles, without reinforcing rigid stereotypes. A supportive, emotionally attuned, and collaboratively engaged family environment serves as the foundational context for lifelong learning, resilience, and positive psychosocial adaptation.

3. Practical Challenges of Father Participation in Parent-Child Games

3.1. Role Absence and Insufficient Recognition of Game Value

Empirical observations indicate that, globally, paternal involvement in daily caregiving and interactive play with young children has gradually increased over recent decades; however, the extent of such engagement consistently remains substantially lower than maternal involvement. In China, despite significant socioeconomic progress and evolving family structures, enduring cultural norms continue to shape parental role expectations—particularly the conventional distinction between external economic contribution and internal domestic responsibility. This normative framework often leads

fathers to conceptualize their primary familial contribution as financial provision, while viewing childcare and playful interaction as supplementary or secondary duties. Consequently, many fathers adopt a supportive rather than co-equal stance in early childhood education and recreational activities, interpreting their participation in parent-child games as optional assistance rather than an essential component of child development. This mindset contributes to inconsistent engagement patterns, reduced time investment, and diminished psychological presence during shared play, ultimately reinforcing structural imbalances in parental responsibility distribution within the household.

Parent-child games serve multifaceted developmental functions that extend well beyond momentary enjoyment or relational warmth. From a developmental science perspective, structured and unstructured play interactions significantly advance children's executive functioning, language acquisition, emotional regulation, peer negotiation skills, and theory-of-mind development. Simultaneously, these activities strengthen attachment security, foster mutual responsiveness, and cultivate reciprocal communication patterns that lay the foundation for lifelong relational competence. While fathers commonly acknowledge the relational benefits—such as improved trust, increased affection, and more frequent verbal exchanges—they frequently overlook the evidence-based link between specific game types (e.g., pretend play, rule-based cooperative games, physical coordination activities) and targeted developmental outcomes. For instance, rough-and-tumble play correlates with enhanced self-control and social boundary awareness; narrative co-construction during imaginative play supports metacognitive growth and perspective-taking. Therefore, enhancing paternal awareness requires not only emphasizing affective dimensions but also integrating foundational knowledge about play-based learning mechanisms, age-appropriate scaffolding strategies, and observational assessment techniques [12, 13]. Systematic capacity-building—through accessible parenting education, community-based workshops, and culturally resonant digital resources—can help fathers move beyond intuitive or reactive engagement toward intentional, developmentally informed participation in parent-child games.

3.2. Unstable Game Time and Game Space

Parents are advised to thoughtfully regulate the duration and structure of play activities within family routines. Insufficient time allocation often leads to ambiguous rule frameworks and underdeveloped gameplay strategies, whereas excessively prolonged engagement poses multifaceted health risks: extended screen-based play may contribute to visual fatigue and ocular strain; sustained physical exertion without adequate rest intervals increases susceptibility to musculoskeletal discomfort and minor injuries; and overly long sessions can precipitate caregiver exhaustion, thereby diminishing parental responsiveness and reducing children's intrinsic motivation and sustained attention. Empirical guidance suggests an optimal duration of approximately thirty minutes for preschool-aged children's structured play, balancing cognitive engagement with physiological sustainability. However, contemporary familial realities—including demanding occupational schedules, caregiving responsibilities across generations, and community-level social expectations—frequently constrain fathers' availability and energy reserves upon returning home. Consequently, play episodes tend to be truncated, both temporally and substantively, often concluding before children reach deeper stages of symbolic representation or collaborative problem-solving. This premature termination restricts interaction primarily to surface-level motor actions, limiting opportunities for reflective dialogue, hypothesis testing, and narrative construction—all essential scaffolds for creative cognition and imaginative expansion. Equally significant is the spatial dimension of play: consistent access to a designated, safe, and resource-rich environment supports predictable routines, role clarity, and progressive skill integration [14, 15]. In practice, however, many father-child play interactions occur spontaneously, without prior spatial preparation or environmental adaptation, resulting in fragmented scheduling,

reduced continuity, and diminished capacity to align play experiences with developmental milestones or individual learning trajectories.

3.3. The Game Format and Content Are Monotonous

The diversity and developmental appropriateness of parent-child games significantly influence early childhood outcomes across multiple domains, including motor coordination, socio-emotional regulation, executive functioning, and symbolic thinking. Overly simplistic or repetitive game structures—characterized by limited rule complexity, minimal narrative scaffolding, and narrow interaction modalities—fail to align with the rapidly evolving cognitive and affective capacities observed in children aged three to six years. Such monotony not only diminishes sustained attention and intrinsic motivation but also constrains opportunities for joint attention, shared intentionality, and reciprocal communication, all of which are foundational to secure attachment and language acquisition. Empirical observation indicates that many parental engagements prioritize physical exertion over integrated learning experiences; for instance, activities such as running, tossing, or basic imitation often omit embedded opportunities for prediction, hypothesis testing, perspective-taking, or collaborative goal-setting. In contrast, well-structured interactive games incorporating layered challenges—such as sequential storytelling with variable outcomes, cooperative construction tasks requiring role negotiation, or rule-modification exercises guided by child input—demonstrate measurable gains in working memory, flexible thinking, and empathic responsiveness. Furthermore, digital-augmented play, when thoughtfully designed and co-facilitated, can extend representational capacity and multimodal expression without displacing embodied interaction. Sustained innovation in game design must therefore balance developmental science, cultural relevance, and intergenerational accessibility to support holistic growth.

3.4. Weak Collaborative Guidance and Support among Households

The importance of coordinated education between kindergartens and families is widely acknowledged as a foundational element in supporting holistic early childhood development. Regulatory guidance underscores the necessity of strengthening ongoing evaluation with attention to key quality dimensions—including activity design, teacher-child relational dynamics, and collaborative engagement with caregivers—thereby affirming home-kindergarten partnership as an integral component of educational practice. In delivering effective parent-child play activities, kindergartens encounter operational constraints when alignment among stakeholders is incomplete, whether due to divergent understandings of developmental goals, variations in pedagogical orientation, or inconsistent conceptualization of play's educational significance. Structural and procedural factors further compound these challenges. First, institutional practices often reflect enduring gendered assumptions about caregiving roles; many kindergartens continue to underemphasize fathers' contributions to early learning experiences, inadvertently reinforcing conventional divisions of domestic responsibility. This tendency manifests in program design, facilitation strategies, and communication protocols that implicitly position mothers as default participants. Second, scheduling patterns for joint activities predominantly fall on weekdays, limiting accessibility for fathers whose occupational commitments restrict availability during standard working hours [13]. Third, information dissemination mechanisms—including digital platforms such as parent messaging groups, face-to-face consultation sessions, and developmental progress updates—frequently exhibit pronounced gender asymmetry in outreach and engagement. Teachers may unintentionally direct communications primarily toward mothers, omitting fathers from routine updates or failing to provide tailored guidance on how they might meaningfully participate in play-based learning at home. Addressing these systemic gaps requires intentional policy refinement, staff professional development focused on inclusive family engagement, and the redesign of logistical frameworks to ensure equitable participation opportunities across caregiver identities.

4. Breakthrough Approaches for Father Participation in Parent-Child Games

4.1. Clarify One's Role and Innovate Cognitive Concepts

To overcome persistent barriers to fathers' participation in parent-child play, a foundational intervention involves facilitating a deliberate and reflective redefinition of paternal identity and responsibility. This process extends beyond surface-level behavioral encouragement and targets deep-seated cognitive schemas that shape how fathers perceive their relational and developmental contributions. Father involvement must be reconceptualized not as episodic assistance or supplementary caregiving but as an integrated, dynamic, and developmentally consequential presence across multiple domains: sustained emotional attunement, active cognitive scaffolding during exploratory activities, consistent modeling of ethical reasoning and prosocial norms, observable co-regulatory behaviors during stress or novelty, and meaningful indirect contributions—such as curating enriching home environments, selecting age-appropriate materials, or coordinating community-based learning opportunities. Such a multidimensional framework challenges traditional role boundaries rooted in historical division of labor and affirms fathers as co-architects—not just co-participants—in early childhood development. Grounded in the principle of shared parental responsibility, interventions should explicitly position fathers as equal partners in nurturing developmental outcomes. Community-organized parenting workshops, kindergarten-facilitated reflection circles, and structured case-based dialogues offer experiential platforms where fathers can examine real-world scenarios, compare diverse engagement patterns, and articulate personal values aligned with child-centered goals. These settings foster metacognitive awareness about paternal influence, helping fathers recognize how seemingly minor interactions—such as narrating daily routines, asking open-ended questions during block play, or jointly interpreting picture books—accumulate into significant developmental leverage. When fathers internalize this expanded conception of their role, participation shifts from obligation to agency, laying the groundwork for sustained, high-quality, and developmentally responsive parent-child play experiences that holistically advance children's emotional regulation, executive functioning, moral reasoning, linguistic fluency, and physical coordination.

Equally critical is transforming fathers' understanding of play itself—not as leisure or recreation, but as a primary vehicle for structured, embodied, and relational learning. This requires moving beyond instrumental views focused solely on relationship maintenance or behavioral compliance and cultivating a scientifically grounded appreciation of play's multifaceted developmental architecture. Play functions as a natural laboratory where children integrate sensory input, test hypotheses, negotiate social rules, regulate affect, and consolidate neural pathways. Systematic educational resources—including evidence-informed online modules, annotated parent-child game guides with developmental annotations, and interactive digital toolkits—can illustrate precise linkages between specific play modalities and domain-specific growth: rhythmic movement games strengthen vestibular and proprioceptive integration while supporting attentional control; collaborative storytelling games scaffold narrative competence and theory of mind; rule-based board games cultivate working memory, inhibitory control, and perspective-taking; and open-ended construction play fosters spatial reasoning, iterative problem-solving, and symbolic representation. Complementing these resources, guided reflection practices—such as maintaining structured growth journals documenting observed shifts in children's persistence, verbal complexity, emotional vocabulary, or cooperative strategies—enable fathers to witness tangible developmental milestones emerging directly from shared play episodes. Over time, such documentation cultivates pedagogical sensitivity, reinforcing the idea that play is neither incidental nor secondary but a core, intentional, and irreplaceable component of early learning ecosystems. This epistemological shift transforms participation from passive support into purposeful co-construction of developmental opportunity.

4.2. Optimizing Spatiotemporal Support to Establish Stable Parent-Child Gaming Scenarios

To address persistent challenges—including fragmented availability of shared time and variability in physical environments—a robust, adaptive parent-child gaming support system must be intentionally cultivated across both spatial and temporal dimensions. Spatial planning entails more than mere arrangement of furniture or toys; it requires thoughtful design grounded in developmental principles, where distinct functional zones—such as a quiet reading nook with age-appropriate books and tactile supports, an open-ended art station stocked with washable, sensory-rich media, and a flexible construction zone featuring modular blocks, natural materials, and collaborative building tools—serve as catalysts for sustained, developmentally responsive engagement. These zones should be clearly demarcated yet fluidly interconnected, allowing children to transition between activities while maintaining continuity of attention and relational focus. Caregivers, particularly fathers who often assume distinct interactional roles within family play routines, are encouraged to curate materials not only for novelty but for layered affordances: items that simultaneously support fine motor coordination, symbolic representation, problem-solving, and emotional co-regulation. Furthermore, material selection must be dynamically reviewed every four to six weeks, aligned with observed shifts in the child's emerging competencies—such as increased narrative capacity, improved bilateral coordination, or heightened curiosity about cause-effect relationships—ensuring that environmental scaffolding evolves in step with developmental progression.

Temporal structuring demands equal intentionality. Rather than treating play as residual leisure, families benefit from embedding consistent, predictable opportunities for joint activity into weekly rhythms—ideally scheduling one to two dedicated, uninterrupted sessions lasting 30–45 minutes each, during which digital distractions are minimized and adult presence is fully attuned. These sessions should be co-planned whenever possible, inviting children to contribute ideas, select themes, or help prepare materials, thereby reinforcing agency and shared ownership. When extended periods are impractical due to competing responsibilities, micro-interactions offer meaningful alternatives: collaborative meal preparation with measured ingredients and sequential steps, joint sorting of laundry by color or texture, or structured pet care routines involving observation logs and gentle handling—all of which embed mathematical reasoning, language development, and socio-emotional learning within authentic, low-pressure contexts. Crucially, consistency—not duration—emerges as the strongest predictor of relational security and cognitive enrichment; even brief, high-quality exchanges characterized by mutual attention, responsive dialogue, and affective attunement yield measurable benefits for executive function and attachment quality.

4.3. Integration of Multiple Game Types to Enrich Game Content

Fathers frequently engage with children's play in observational or supportive roles, with sports-related games representing the most prevalent form of participation. However, when fathers shift from passive observers to intentional co-designers of play experiences, they significantly elevate the developmental quality and emotional resonance of shared playtime. This active design role enables fathers to model curiosity, scaffold learning, and reinforce the intrinsic value of imaginative, purposeful play. Effective implementation involves layered, developmentally attuned strategies: first, jointly exploring narrative-rich picture books to seed thematic inspiration; second, repurposing everyday discarded materials—such as cardboard boxes, fabric scraps, or plastic containers—to collaboratively construct game props grounded in story worlds; and third, designing low-barrier, high-flexibility games that prioritize accessibility, adaptability, and joyful iteration. Crucially, enriching game content requires deliberate integration across modalities—for instance, embedding movement-based challenges within narrative-driven role-play, or layering spatial reasoning tasks into performance-oriented scenarios where children build structures and then enact stories around them. During joint play, fathers can nurture cognitive flexibility by inviting iterative redesign: encouraging children to modify rules, reassign roles, or reimagine outcomes based on

emerging interests. Open-ended prompts—such as "What might happen next if this character made a different choice?" or "How could we use these blocks to solve this pretend problem?"—stimulate associative thinking and hypothesis generation. Children's contributions should be honored as central to the design process, with their preferences, questions, and spontaneous ideas shaping rule evolution and activity sequencing. Game elements must be calibrated to match children's current capacities in language comprehension, fine and gross motor coordination, and symbolic representation—ensuring challenges are neither overwhelming nor under-stimulating. Sustained, responsive engagement in such co-creative play cultivates divergent thinking, strengthens executive function, and supports holistic developmental progress.

4.4. Optimizing Home-School Collaboration to Facilitate Parent-Child Games

Home-school collaboration represents a strategic educational alliance that systematically integrates familial resources with institutional pedagogical expertise, thereby reinforcing developmental continuity across learning contexts. This synergy not only strengthens children's cognitive, socio-emotional, linguistic, and motor development but also cultivates sustainable family engagement grounded in evidence-informed practices. A truly effective partnership is characterized by mutual respect, reciprocal accountability, shared decision-making, and co-constructed goals—elements that collectively foster children's holistic growth, emotional security, and ethical reasoning. To maximize the developmental efficacy of parent-child games, kindergartens must adopt a proactive, differentiated, and technologically responsive approach. First, systematic observation and formative assessment data should inform the design of personalized game recommendations; digital platforms—including mobile applications and secure web portals—can disseminate curated, developmentally sequenced activity modules aligned with children's emerging competencies and parental capacity levels. Second, sustained professional learning opportunities—such as bi-monthly interactive workshops, thematic parent seminars, collaborative action research cycles, and reflective practice forums—should equip caregivers with foundational knowledge of play theory, scaffolding strategies, observational documentation techniques, and culturally responsive adaptation methods. These engagements empower parents to move beyond passive participation toward informed co-facilitation. Third, intentional inclusion initiatives—particularly those designed to engage fathers, grandparents, and other caregiving adults—must be embedded into routine programming through flexible scheduling, multilingual support, role-specific activity guides, and recognition mechanisms that affirm diverse contributions to children's learning ecosystems.

References

1. J. H. Pleck, *The Role of the Father in Child Development*, 3rd ed. New York: Wiley, 1997.
2. E. L. Robinson, J. StGeorge, and E. E. Freeman, "A systematic review of father-child play interactions and the impacts on child development," *Children*, vol. 8, no. 5, p. 389, 2021.
3. L. Teufl and L. Ahnert, "Parent-child play and parent-child relationship: Are fathers special?," *Journal of Family Psychology*, vol. 36, no. 3, pp. 416, 2022.
4. J. M. StGeorge, J. C. Goodwin, and R. J. Fletcher, "Parents' views of father-child rough-and-tumble play," *Journal of Child and Family Studies*, vol. 27, no. 5, pp. 1502–1512, 2018.
5. Q. Huang, J. Sun, and Y. Tang, "Chinese parents' scaffolding and children's initiative in mother-child and father-child interactions across different types of problem-solving activities," *Early Education and Development*, vol. 32, no. 2, pp. 249–271, 2021.
6. X. Lin, S. Xie, and H. Li, "Chinese mothers' and fathers' involvement in toddler play activity: Type variations and gender differences," *Early Child Development and Care*, vol. 189, no. 2, pp. 179–190, 2019.
7. L. J. Keown and M. Palmer, "Comparisons between paternal and maternal involvement with sons: Early to middle childhood," *Early Child Development and Care*, vol. 184, no. 1, pp. 99–117, 2014.
8. S. N. Yılmaz et al., "FATHER INVOLVEMENT IN CHILD DEVELOPMENT AND LEARNING," 2021.
9. N. Pekel-Uludağı, "The role of the father involvement in child development: the relationships with maternal, paternal, and child characteristics," *Current Psychology*, vol. 43, no. 5, pp. 4085–4097, 2024.

10. L. Rollè et al., "Father involvement and cognitive development in early and middle childhood: A systematic review," *Frontiers in Psychology*, vol. 10, p. 2405, 2019.
11. N. Torres, M. Veríssimo, L. Monteiro, A. J. Santos, and I. Pessoa e Costa, "Father involvement and peer play competence in preschoolers: The moderating effect of the child's difficult temperament," *Family Science*, vol. 3, no. 3–4, pp. 174–188, 2012.
12. K. S. Ancell, D. A. Bruns, and J. Chitiyo, "The importance of father involvement in early childhood programs," *Young Exceptional Children*, vol. 21, no. 1, pp. 22–33, 2018.
13. C. S. Tamis-LeMonda and M. H. Bornstein, "Play in parent–child interactions," in *Handbook of Parenting, Volume 5: Practical Issues in Parenting*, 2002, p. 220.
14. M. A. Peabody, "Parent involvement in children's game play: Accelerating the therapeutic impact," in *Game Play: Therapeutic Use of Games with Children and Adolescents*, 2019, p. 9.
15. G. Musick, G. Freeman, and N. J. McNeese, "Gaming as family time: Digital game co-play in modern parent-child relationships," in *Proc. ACM Hum.-Comput. Interact.*, vol. 5, no. CHI PLAY, pp. 1–25, 2021.

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of Publisher and/or the editor(s). Publisher and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.