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# Play with Parents and Other Care Givers in Diverse Family Structures

## Influences on Children's Play Experiences, Cognitive Growth, and Social-Emotional Development

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The authors trace the evolution of the involvement of parents and other care givers in play using research on the topic and identifying the gaps in this research. They note that parents and care givers are often the play partners of children who invite them into their play for various reasons, including to facilitate play, to observe play, and to engage actively in play. The authors examine cultural differences in attitudes toward play and highlight significant social changes involving play. They explore children's engagement in play with care givers in diverse family structures consisting of parents, single parents, same-sex parents, grandparents, and extended family members. They explore the influences on this engagement, including socioeconomic conditions, the availability of play environments and materials, and the impact of technology and care giver gender roles within diverse family structures. Throughout, the authors underscore the benefits of parents and other care givers becoming involved in their children's play, particularly in fostering the cognitive, social, and emotional development of the children. **Keywords:** cognitive development; early childhood; family structure; parents and play; social and emotional development

### Introduction

**F**OR OUR PURPOSES, play refers to a collection of activities children engage in that involve their symbolic thinking, imagination, and explorations for enjoyment (Burghardt 2005, 2010; Gross and Cornelli Sanderson 2012; Pellegrini 2013). Play activities are often undertaken for their own sake and include imaginative, physical, cognitive, social, and emotional elements crucial for children's learning and development (Frost et al. 2012). Play also creates possibilities for

children to explore the world, test ideas, solve problems, engage in social interactions, develop skills, and express their imagination (Harris 2000; Lillard et al. 2013).

Adult involvement and facilitation, wherein parents and other care givers provide resources and opportunities, proves crucial for enriching young children's play experiences and encouraging developmental milestones (Ginsburg 2007; Yogman et al. 2018). Close family members' involvement, their observational and guiding role, particularly that of parents, is vital in striking a balance between offering support and allowing children autonomous exploration (Macdonald and Parke 1984; Roopnarine and Davidson 2015). Encouragement through interaction and showing interest in children's play activities has been linked to enhanced cognitive and social and emotional development in subdomains such as mathematical knowledge, self-regulation, creativity, and problem-solving skills (Huang et al. 2022; Lin and Li 2018; Perlmutter and Pellegrini 1987; Mondell and Forrest 1981). Lastly, the adult role in ensuring a safe play environment is essential to prevent physical harm and provide a secure space for risk taking and exploration, which is integral to a child's overall developmental process (Valentine and McKendrick 1997). These varied aspects of close adult family members' involvement in play are not mutually exclusive, and they collectively highlight the importance of their involvement in children's development.

Children in North America and around the world experience diverse family structures depending on their cultural background, the availability of child care, economic conditions, and the evolving legal and policy frameworks that shape family composition and care-giving roles. Diverse family structure refers to families that vary in structure, composition, and characteristics with differences in gender, ethnicity, age, marital status, and personal dynamics (Dunifon et al. 2018; Jensen and Sanner 2021). We define parents and other care givers as one or more persons living together by birth, marriage, or adoption or all related persons considered members of one family. Kinship relationships within extended families also vary widely (Langer and Ribarich 2007). Lineal relationships refer to those between the grandparents and the grandchildren. Collateral relationships refer to those with uncles and aunts, nephews and nieces. Extended family households are critical in supporting their kin and interacting with children closely. Although aunts and uncles are seldom the primary care givers of their nieces and nephews and rarely live in the same household, they can serve as essential parts of an extended family for children and are often highly com-

mitted to the lives of these youngsters (Tanskanen and Danielsbacka 2022). Furthermore, research on children living with their grandparents highlights such families' prevalence and diverse structures, including three-generation households and grandfamilies, where grandparents serve as primary care givers (Dunifon et al. 2018). These intergenerational care-giving arrangements shape children's experiences and development. A significant portion of North American children regularly spend time with their grandparents.

Starting in infancy, children seek connections and develop strong bonds with their parents and other care givers, cementing their ability to relate to others (Gross and Cornelli Sanderson 2012). Therefore, the intricate relationship between play and the involvement of parents and other care givers in diverse family structures and the associated impacts on children's cognitive, social, and emotional development form the focus of this literature review. This review of the last twenty-five years of research also encapsulates socioeconomic, historical, and cultural variations in the roles of care givers in young children's play, examining how societal changes and cultural norms have influenced involvement in play. We also address critical factors affecting children's play, such as socioeconomic influences, play environments and materials, and the challenges posed by technology and care giver gender roles in various family structures.

We highlight the significant benefits of parental and care giver involvement in play for children's cognitive and social-emotional development, including language acquisition, problem-solving skills, creativity, empathy, cooperation, and self-regulation. The review also underscores successful strategies to enhance parental involvement, including educational programs and community initiatives, reflecting on how these approaches can optimize the developmental outcomes of play for children. We show that, although grandparents are involved in play and their involvement benefits children, how they engage in play remains a gap in the literature.

## **Play with Parents and Other Care Givers**

Parent involvement refers to how they engage with and support children's play. The importance of this involvement is widely acknowledged as multifaceted and significant (Amodia-Bidakowska et al. 2020; Ginsburg 2007; McBride 1990). Parents facilitate children's play in various ways, including direct engagement during play activities, facilitating environments conducive to play, observing

and guiding play, and encouraging play (Lindsey and Mize 2001; McFarland and Laird 2018). Direct engagement in play activities is seen as a way to strengthen the bond and feelings of security and support cognitive and social-emotional development (Ginsburg 2007).

Although other care givers are invaluable in play and offer benefits, they determine a smaller range of roles when engaging with children, particularly in play and learning activities. For example, compared to parents, grandparents may have a more structured approach to playing with young children (Bernal and Raquel De la Fuente Anuncibay 2007; Seefeldt 2021). They determine when they play with children, what they play, and when they end the interaction. Grandmothers, in particular, express the need to be in control of their interaction with their own grandchildren or children who are not a part of their family (Seefeldt 2021). A study in Spain by Bernal and Raquel De la Fuente Anuncibay (2007) explored grandparents' activities with young children. They found that play-related activities varied significantly in frequency. While 19.6 percent of grandparents engage in daily play and 24 percent in weekly play, 14 percent never participate in play at all. Storytelling follows a similar pattern. Engagement in explanatory interactions appear more common, with 21 percent explaining things daily and 26 percent weekly, with only 11 percent never engaging in such activities. Grandparents predominantly perceive their role as providing unconditional love (85 percent). However, 56 percent identify as playmates, suggesting that, although many engage in play, fewer perceive it as central to their role. These findings suggest that grandparents play an active role in interactive and educational activities, particularly play, storytelling, and explanatory interactions, whereas engagement in reading and passive activities occurs less frequently.

Intergenerational play serves multiple functions, benefiting grandparents and grandchildren through mutual support, emotional connection, and shared experiences. In one of the rare detailed intergenerational studies, Agate and colleagues (Agate et al. 2018) explored qualitatively what sixteen grandparents and seventeen grandchildren get from playing together. They focused on motivation, benefits, constraints, negotiations, and mechanisms (i.e, the "how"). Participants said playing together allowed them to help bring happiness to one another and also offered a way to express love, strengthen bonds, and create lasting memories, especially if they were separated by distance. Play facilitated getting to know one another on a deeper level, with grandparents sharing stories and grandchildren learning about the lives of their elders. Additionally, play provided an opportu-

nity for teaching and learning, with grandparents passing down life lessons and specific skills contributing to children's confidence and development. Enjoyment and happiness derived from these interactions proved to be a central theme, reinforcing the significance of play in fostering relationships and facilitating social and emotional interactions across generations (Agate et al. 2018).

We know that grandparents play with children, and the quality of engagement can equal that of parents; but little research exists quantitatively explaining the benefits of play for grandchildren's cognitive and social and emotional development. Thus, we see a need to explore further the factors that influence the involvement of grandparents and other care givers, such as uncles and aunts, in play and its potential developmental benefits for children.

### **Cultural and Historical Context**

The cultural and historical context of the involvement of parents and other care givers in children's play reflects a complex interplay of sociocultural norms and evolving family dynamics. Where children reside affects how parents and other care givers become involved in play (Dunifon et al. 2018). Jacobs (1961) emphasized the importance of urban spaces that encourage adventurous outdoor play for children, cautioning against enclosed and overly sanitized play environments. She argued that such spaces fail to engage "children of enterprise or spirit" beyond early childhood (80). However, Gill (2021) noted that contemporary urban families face a drastically altered landscape—increased traffic, rising population density, and declining communal outdoor spaces have made cities less conducive to outdoor play. Anecdotal reports suggest that parents may be restricting outdoor play because they feel it is not safe given the violence and crime found in some urban environments (Kalish et al. 2010).

For example, in the United States, parents may be rightly worried about violence in some neighborhoods. They exaggerate these safety concerns, however, prompting families to avoid outdoor spaces entirely (CDC 2023; Galaviz et al. 2016; Kalish et al. 2010). Similarly, in Canada, the emergence of safe injection sites near parks and play areas introduces new considerations for parents weighing the safety and appropriateness of outdoor play spaces (Bundy et al. 2009). These worries, along with the other perceived risks of play, push families and children toward indoor environments, which they perceive as safer and more controllable (Brussoni et al. 2015). These decisions prioritize immediate safety,

but they often come at the cost of play opportunities, which research highlights as critical for children's development. Outdoor play opportunities foster resilience, self-confidence, and emotional regulation (Brussoni et al. 2015; Ernst 2018; Fjørtoft 2001; Gray 2011). The trend toward indoor play reflects broader societal shifts that value controlled environments for play over unstructured exploration.

Historically, the involvement of parents in children's play has been influenced by child-rearing philosophies and societal norms (Giallo et al. 2013; McBride and Mills 1993). In particular, the nuclear family model prevalent in Western societies (e.g., North America and Europe) in the twentieth century placed greater emphasis on the direct involvement of parents in children's lives, including play (DiBianca Fasoli 2014; Peterson and Rose 2003). In contrast, many non-Western societies (e.g., China) often view children's play as a communal activity, in which the extended family and community members hold significant roles (Cortes Barragan et al. 2024; Edwards 2000; Lin and Li 2018).

The perception of the value of play varies significantly across cultures. In Western societies, parents actively encourage play through modelling and scaffolding techniques (Farver and Howes 1993; Teti et al. 1988). But other cultures often see play as an activity exclusively for children, one parents perceive holds less a role for themselves (Dibianca Fasoli 2014). For example, Lin and Li (2018) highlight this cultural divergence, noting that Western parents often play as equals or partners with their children, fostering a shared and interactive experience.

By contrast, Chinese parents tend to adopt a more instructive role during playtime, treating learning as a serious activity distinct from play. This approach reflects broader cultural values and attitudes towards child development and education. Further emphasizing these cultural variations, Little and associates (Little et al. 2016) describe the differences in play styles between Western societies such as the United States and non-Western Indigenous communities like the Vanuatu in the South Pacific. Recently, Veraksa and associates (Veraksa et al. 2025) investigated how beliefs about play differ across generations in Russia and how these beliefs influence the differences in the ways parents and grandparents engage in children's play. Given concerns that play is undervalued in some societies, the researchers conducted two studies to examine generational differences in attitudes toward free play and active participation in children's play experiences. They found that parents were more likely than grandparents to emphasize play's academic benefits, buttressing their willingness to engage in play with their children. Thus, they concluded that parents who perceive

play as developmentally beneficial were more likely to provide resources and opportunities.

In Western cultures, play often involves visual triadic engagement, where both the objects of play and the faces of the participants provide focal points. This form of play aims to enhance visual and communicative skills. In contrast, non-Western communities, such as those in Vanuatu, focus more on physical triadic engagement. Here, the shared physical touch of objects during play becomes more prevalent, fostering tactile and kinesthetic interactions with toddlers. Broad societal and cultural contexts such as socioeconomic status influence parental attitudes and involvement in play, further underscoring the complex interplay between culture, family dynamics, and child-rearing practices that lead to different kinds of involvement by parents in different cultures (Ihmeideh 2017).

Research findings regarding the parenting styles of mothers compared to those of fathers are generally inconclusive (Kwon et al. 2012), which also applies to their engagement in play. Given the various attachment styles between each parent and child, child-father versus child-mother engagements—and the attachments formed—contribute differently to children's development (Al-Yagon 2014). Traditionally, mothers have played a pivotal role in their children's play, often acting as primary facilitators, participants, and coplayers (Hodkinson and Brooks 2020). Their role remains significant as the primary care givers in children's play, facilitated by children's strong attachment to their care givers. They typically provide the initial framework and environment for play, nurturing cognitive, social, and emotional development through interactive and imaginative activities. Mothers' involvement in children's play has been instrumental in shaping early learning experiences and fostering bonds for safe and confident exploration.

The role of fathers in children's play has been subject to significant evolution. Traditionally, fathers were often seen as the primary disciplinarians and breadwinners, focusing less on direct, playful interactions with their children (Hodkinson and Brooks 2020; Jones et al. 2022). This was partly due to societal norms favoring a more stoic, authoritative paternal figure and transferring nurturing and care-giving roles to mothers. However, some research began to highlight the unique contributions parents make to their children's development through play. For instance, Dunn and Dale (1984) showed that different family members are uniquely involved in children's play. They found that siblings were interested in setting up pretend games with different role transformations

and that mothers encouraged labelling objects and carrying out appropriate actions. The modern and late-modern periods have seen a further shift in these dynamics, influenced by factors such as the feminist movement, which advocates gender equality in all aspects of life, including parenting. The Industrial Revolution also contributed to changes in women's roles in society. Most textile workers were women, and the textile industry was by far the leading employer (Beckert 2014). This prompted a reevaluation of traditional gender roles and to a growing expectation that fathers would be more actively involved in nurturing and play-related activities.

Furthermore, research focusing on children living with their grandparents provides insights into the characteristics of families with diverse constellations (Dunifon et al. 2018). Researchers typically consider two family types: three-generation households, consisting of grandparents, parents, and children living in one household and grand families, households in which grandparents raise their grandchildren with no parent present. The latter has been increasing steadily in North America—up to 30 percent of all children in the United States live with a grandparent at some point. Additionally, the average U.S. child spends significant time with a grandparent in a given week, particularly the younger ones—48 percent of preschoolers and 33 percent of elementary-aged children spent at least some time with their grandparents in a typical week.

With global migration patterns and the variations in life experiences of today, many countries are becoming heterogeneous. Due to ethnically heterogeneous populations, child care experiences at home are becoming increasingly diverse (de Vos et al. 2022; Statistics Canada 2022; Trevelyan et al. 2016). Living with or receiving care-giving support from a grandparent can benefit children, but how grandparents engage with children and spend their time differs (Bernal and De la Fuente Anuncibay 2007; Dunifon and Kowaleski-Jones 2007; Seefeldt 2021). In some cultures, intergenerational interactions prioritize literacy and numeracy activities over play, often not perceived as an essential component of children's development (Lin and Li 2018; Areepattamannil 2014). For instance, some families may support young children's play as teachers rather than playmates, reflecting a structured and goal-oriented approach to early learning. Similarly, migration histories, struggles, and sacrifices among some immigrant families and the premigration cultural capital shape home-based literacy and numeracy practices. These practices reflect a cultural emphasis on academic preparation, for which structured learning becomes more valued than play (Lin and Li 2018). Such practices at home foster cognitive and motivational structures

that encourage children to internalize high educational aspirations and cultivate desirable behaviors necessary for achieving these goals. The devaluation of play in these contexts underscores the belief that academic success proves paramount for securing future opportunities.

Turning to families for which care giving comes from other family members, the research has typically focused on grandparents. The COVID-19 pandemic, in particular, highlighted grandparents as a key contributor to child care solutions (Cantillon et al. 2021), and in any case children generally spend time with their grandparents in a typical week (Dunifon et al. 2018). Children may also live with their grandparents, either with their parent(s) in a multigenerational household or only with their grandparent(s) (Cantillon et al. 2021; Dunifon et al. 2018). During this time together, children and grandparents play together, but the time spent together decreases as children grow from preschool age to adolescence (Dunifon et al. 2018). Children playing with grandparents has been found to have a unique dynamic compared to their playing with their parents, characterized in particular by a mutual enjoyment of the interaction (Agate et al. 2018). In the context of this unique interaction, grandparents generally help scaffold children's development of social and emotional skills, enhance learning experiences, and transmit cultural heritage (Duflos et al. 2024; Tympa et al. 2024). However, the rewards of such play extend beyond those to the child, with grandparents also benefiting from being physically active and socially connected (Duflos et al. 2024; Tympa et al. 2024).

## **Factors Affecting the Involvement in Play of Parents and Other Care Givers**

### *The Impact of Socioeconomic Status and Related Factors*

The involvement of parents and other care givers in children's play varies significantly across socioeconomic status (SES) (Seefeldt 2021). SES has a multifaceted impact on children's play and involvement in play that reflects the complex interplay between cultural practices, economic resources, and educational opportunities. Theoretical perspectives on the social factors influencing children's play and development focus on two models: the family stress model and the family investment models (Conger and Donnellan 2007; Hackman et al. 2015).

The family stress model provides a framework for understanding the economic hardships that sometimes infiltrate the parent-child dynamics involved

in play (Neppel 2016; Zhang 2020). Parents from lower-income backgrounds focus primarily on the family's day-to-day survival. Parents suffering economic difficulties find they have less time for play because of increased work hours or because they have to take on additional jobs to meet basic financial needs. Consequently, the opportunities to engage in play, crucial for their children's development, become less frequent and shorter (Milteer et al. 2012). Moreover, stress stemming from financial worries or having to work beyond their capacity can diminish the emotional availability parents have to devote to play, potentially leading to fewer and less sensitive responsive interactions with their children (Neppel 2016; Newland et al. 2013).

The psychological impact of financial stress on parents can also significantly influence their involvement in play. Increased stress, anxiety, and other health conditions can limit a parent's ability to participate fully in play, affecting their patience, sensitivity, and overall enthusiasm for playful interactions (Newland et al. 2013). Parents under considerable stress can lean toward more authoritarian or less responsive approaches, limiting their children's opportunities for creativity, exploration, and autonomous play. The emphasis may inadvertently shift toward harsh parenting, discipline, and structure, overshadowing the critical role of playfulness and spontaneity in fostering developmental growth (Neppel 2016; Newland et al. 2013). In particular, children who live in poverty often face obstacles such as their parents' working many hours and having insufficient toys in the house, both of which impede their playtime and thus affect their cognitive, social, and emotional development (Milteer et al. 2012).

Other social and contextual factors also affect the quality of play that parents engage with their children (Miller et al. 2017) and can limit the engagement and support needed to promote important learning processes for children during play activities. Research indicates that parents experiencing time constraints from everyday responsibilities, such as work commitments and household duties, find that they impact their ability to engage in quality play with their children (Oliver et al. 2022; Shah et al. 2019). Parents with work commitments may spend a large portion of their day outside the home and, after returning from work, have the added responsibilities necessary to maintain a household, such as cooking, cleaning, and child care. These duties can leave many families feeling the pinch of limited time during their day and can restrict the downtime parents have for themselves and for their children to experience quality play (Ginsburg 2007), all of which contributes to feelings of fatigue and exhaustion that further affect parents' ability to engage in and respond to their children during play (Shah et al. 2019).

The family investment model posits that SES facilitates development through access to educational tools, conducive learning environments, and parental involvement in learning activities (Conger and Donnellan 2007; Yeung et al. 2002). Additionally, the economic conditions of a family affect the physical and material conditions conducive to play, such as access to safe and stimulating play environments like parks and recreational facilities, as well as developmentally appropriate play materials. The lack of resources often leads to a play environment that fails to provide the richness and variety necessary for optimal child development. Hackman and associates (Hackman et al. 2010) document the empirical support for the influence of parenting practices and the home environment on cognitive and social outcomes, particularly in developing brain regions associated with executive functions.

Families from more affluent backgrounds often enjoy more access to resources and opportunities that enrich a child's play experiences. This includes toys and materials that stimulate creativity and learning, as well as environments such as playgrounds, museums, and extracurricular activities conducive to diverse forms of play. Notably, parents from higher SES backgrounds are often able to organize and participate actively in children's educational and other activities, including play (Carolan and Wasserman 2015). Financially stable grandparents enjoy being with and playing with children, especially their grandchildren. Financial stability, even for those elderly people who themselves have divorced and remarried and whose children are single parents or remarried, seems to be related to enjoyable, playful interactions with children (Seefeldt 2021).

Mermelshtine (2017) extensively examined the behaviors of parents—their scaffolding, support, and guidance during play tailored to their children's developmental stages. Research indicates a robust relationship between the quality of interactions and children's executive functions and self-regulation capabilities (Bernier et al. 2010; Hammond et al. 2012). Moreover, parenting strategies aimed at managing or altering the attention of children are significant predictors of executive function performance, highlighting the critical role of the home learning environment and parenting practices in shaping cognitive, social, and emotional development (Bernier et al. 2010). These resources provide children with a broader range of experiences and learning opportunities. This involvement can lead to a more structured play environment, in which play becomes a medium for learning and development.

Conversely, children from lower SES backgrounds may have limited access to such resources, potentially affecting their cognitive and social development

(Nwokah 2013). Parents who might face time and financial constraints may not be able to offer more structured play experiences or quality interactions (Bernier et al. 2010). Financial stability plays a pivotal role in shaping parental involvement in children's play, influencing not just the amount of time spent together but significantly enhancing the quality of these interactions. Such stability enables parents to create a nurturing, resource-rich environment that supports their children's developmental needs. By ensuring that parents have the emotional bandwidth, time, and resources to engage meaningfully in play, financial stability lays the groundwork for positive child development.

Dunifon and colleagues (Dunifon et al. 2018) highlight the socioeconomic and educational disparities across various family structures. Two-parent families tend to have a higher socioeconomic status, including a greater average income and higher educational attainment for household heads. This association suggests such families have better access to resources, contributing to more stable environments that facilitate child development.

In contrast, single-parent families face more pronounced economic challenges, as evidenced by the lowest average income among the family types studied. The lower educational levels in these families can restrict economic opportunities and adversely affect children's social and educational development.

Three-generation families and grand families have an intermediate socioeconomic position, with incomes higher than single-parent families but lower than two-parent households. Notably, the educational attainment in these families, particularly concerning high school completion rates among household heads proves lower than that observed in two-parent families. This lower educational attainment may be due to generational gaps in access or economic conditions that hinder educational progress.

Thus, single-parent families can struggle to provide varied play opportunities because of financial constraints, which potentially limits children's developmental experiences. Meanwhile, children in three-generation and grand families may engage in fewer play opportunities but benefit from increased traditional and cultural play interactions, especially with grandparents who play pivotal roles in storytelling and cultural transmission, offering unique developmental support despite lower educational attainment.

### *The Impact of Play Environments and Materials on Children's Development*

During play, children interact with the physical and social elements of the envi-

ronment, enabling them to discover challenges and practice their developing skills (Dauch et al. 2018). The relationship among the characteristics of play environments (e.g., indoor versus outdoor space), and particularly the diversity and developmental value of play materials, prove essential in terms of the association between play and developmental outcomes (Anders et al. 2012; Ginsburg 2006; Vickorius and Sandberg 2006; Yeung et al. 2002). This interplay becomes critical because it directly affects the dynamics of the interactions between parents (or other care givers) and their children.

Children's play environments encompass a broad spectrum of physical and social configurations, ranging from structured indoor or outdoor spaces equipped with educational toys and resources to unstructured outdoor areas that encourage exploration and interaction with the natural world. Within these learning environments, play materials constitute the objects provided for play and learning activities, including but not limited to toys, puzzles, building blocks, art supplies, and digital learning tools, each offering unique opportunities for cognitive engagement and social interaction. The availability of quality toys and materials influences children's engagement in play and their parents' involvement (Chang and Yeh 2015; Dauch et al. 2018). The accessibility of diverse and age-appropriate toys not only influences how parents engage with their children, but potentially lead to a richer and more interactive play experience (Hashmi et al. 2021; Sosa 2016). Parents with higher levels of education tend to buy toys that they perceive to have developmental benefits for their children (Ebster et al. 2009). The types and the number of toys available often dictate the nature of the play and the extent to which parents participate.

Researchers have explored the type of toys that offer the most meaningful benefits for children's cognitive development and those that encourage the highest parental involvement, particularly for learning language (e.g., Miller et al. 2017; Sosa 2016). Traditional toys, such as dolls, shape sorters, stacking cups, and blocks, encourage cognitive, social, and emotional development compared to tablets or toys that interact with the participants using electronic sounds and feedback, for example, say, Fisher Price's Amazing Animals Press Go. Lee and Wood (2021) explored how parents and other care givers respond to and scaffold their children's play. They offered families two options—digital block play on a tablet or traditional play with real wooden blocks. They observed that while all parents became supportive and engaged, those involved in in-person wooden block play more often became responsive and engaged in teaching during scaffolding than those using digital play on tablets.

Similarly, Sosa (2016) provided three sets of materials for parents and children to investigate which toys would be most conducive to children's development—electronic toys, traditional toys, and books. The electronic toy set consisted of battery-operated toys that produced songs, light, words, and phrases. The traditional set included puzzles, blocks, and shape sorters centered on three main concepts—animal names, colors, and shapes. The book set consisted of five board books featuring lift-the-flap opportunities. Researchers found that the parent-child play involving books provided greater language learning than electronic toys. Regarding conversational terms and parental response, the traditional toy and book sets scored equally or higher than the electronic set. The toys they selected for the electronic toy set are marketed as educational toys that promote language development. However, their results fell significantly below those for the other toy sets. These results suggest and emphasize that the kind of toy involved can significantly affect the interactions between children and their parent or other care givers to support language development.

Children's play with everyday objects, commonly referred to as loose parts play (LPP), involves versatile materials that encourage creativity, problem solving, and independent exploration. Research suggests that LPP supports children's development, yet empirical studies of its benefits remain limited (Cankaya et al. 2023; Cankaya et al. 2024). Although interest in LPP has grown because of its potential developmental advantages, research has not kept pace with its increasing fame (Gibson et al. 2017; Cankaya et al. 2023).

In one of the rare studies, Naish and associates (Naish et al. 2023) examined parent perceptions of a take-home LPP kit designed to support unstructured play during the COVID-19 pandemic. The pandemic significantly disrupted children's access to physical activity and social interaction, prompting a recreation center to develop these kits to facilitate play at home. Through semistructured interviews with ten parents, three key themes emerged—the pandemic served as a catalyst for rediscovering the importance of play, the kits successfully integrated unstructured play into home settings, and parents recognized the value of unstructured play for their children's development. Parents reported that the take-home play kits provided a meaningful way to engage their children in play both indoors and outdoors, highlighting the potential of such interventions for fostering play-based learning and physical activity. Despite the growing recognition of the loose-parts play, we need more research to examine its effectiveness in enhancing the quality of play and the best practices of parents (Cankaya et al. 2023; Cankaya et al. 2024).

The play environment and social dynamics are crucial to children's social and emotional development (Ginsburg 2007; Morrissey 2014). Morrissey (2014) focuses on toys and how the complexity of children's pretend play evolves during three sessions in which children played with their mothers. In this study, children's pretend play levels advanced from basic stages in session 1 to higher stages (up to stage 10) by session 3, with a noticeable decline in lower-level pretend play and an emergence of more complex play behaviors. What was striking about this study was that mothers initially engaged in more play behaviors than their children. Still, by session 3, the frequency of children's play matched or exceeded that of their mothers, reflecting a typical scaffolding pattern in which responsibility for play shifts from mother to child. Mothers demonstrated play at more advanced levels than their children, with play ranging from stages 2 to 10. The gap between mothers' and children's play levels narrowed over time, aligning with the scaffolding model (Vygotsky 1967). Mothers often modelled play several levels ahead of their children's abilities rather than just one level ahead.

Furthermore, researchers such as Nandy and colleagues (Nandy et al. 2020) investigated the relationship between parental engagement in toy play, verbal facilitation, and play observation with their toddlers' socio-emotional development. The study also examined whether supportive coparenting influenced the relationship between parents' play behaviors and toddlers' socio-emotional competencies. Their findings suggest that in contexts involving two parents and a child, maternal engagement in toy play most significantly enhances children's socio-emotional development, especially when the coparenting environment is supportive. Additionally, Chang and Yeh (2015) discovered that parents playing with their children for fifteen minutes daily from ages two to six can significantly improve parent-child attachment. As they navigate their play, children also navigate emotions and interactions with others and develop essential social skills. The nature of the interactions and the support they receive within these play settings, whether from parents, care givers, or peers, profoundly influence their ability to form healthy relationships, manage feelings, and learn social and family norms.

The dynamic of parent-child interactions within these contexts further amplifies the developmental impact as parents or care givers guide, support, and participate in play activities, scaffolding the children's learning experiences. Parental behaviors, such as actively encouraging developmental advances and, to a lesser extent, providing appropriate play materials, appear to significantly affect young children's competences. Conversely, the seminal work of Bradley

and colleagues, beginning in the 1970s and 1980s (Bradley et al. 1979; Bradley et al. 1989; Bradley et al. 2011), indicates that concerning the environmental variables studied, children also appear to exert a more significant influence on the environment than the environment does on their cognitive development. The more children challenge themselves and show their capabilities, the more they involve their parents. The triadic relationship between the environment, materials, and interactive engagement fosters a rich tapestry of developmental opportunities and tailors the learning process to children's needs, interests, and capabilities. Through this lens, the significance of selecting conducive environments and appropriate materials becomes evident, because these elements collectively create a synergistic effect that propels cognitive growth, enhances social skills, and nurtures emotional intelligence in children. This introduction sets the stage for a deeper exploration of how each component within this triad contributes to the holistic development of children, underscoring the importance of intentional design and interaction in early childhood education and parenting practices.

In the case of other care givers, the social and emotional effects are emphasized with the term "intergenerational play" (Agate et al. 2018). Grandparents feel motivated to engage in play because of their importance to family and to developing familial relationships. Just as grandparents emphasize that having family as a priority proves vital to human development, cherishing time spent in play can anchor grandparents with their families and bond them together. Grandparents play a crucial role in children's social and emotional development by engaging in play, providing unconditional love, and offering emotional support. More than half (56.1 percent) of grandparents consider themselves playmates, and many participate in play-based interactions, with 19.6 percent engaging daily, 23.7 percent weekly, and 17.2 percent on weekends. Their involvement fosters intergenerational bonding, cognitive stimulation, and emotional security. These findings highlight the broader significance of grandparents beyond care giving, positioning them as mentors and emotional anchors in children's lives (Bernal and de la Fuente Anuncibay 2007). Grandchildren, on the other hand, report that playing makes their grandparents feel very good and, thus, makes them feel very happy (Agate et al. 2018).

The dynamic interaction between parents and children during playtime constitutes a critical component of social, emotional, and cognitive development, in which toys and play materials are pivotal in shaping the quality and nature of parent-child engagement. Extensive research reflects a spectrum, and

the type of play objects parents choose becomes instrumental in facilitating (or detracting from) the exchange of gestures, verbal communication, and overall social and emotional connections between parent and child.

### *The Impact of Technology and Digital Media on Play*

The integration of mobile devices and digital media into daily life, particularly within family settings, has become widespread due to the easy availability of cell phones, tablets, and laptops (Bergen et al. 2009; Ewin et al. 2021; Konrad et al. 2021). Specifically, the use of smartphones can pose barriers that prevent parents from fully engaging with their children during playtime (Kildare and Middlemiss 2017). Technology influences the quality and quantity of parent-child play interactions (McDaniel et al. 2023; Courtney and Nowakowski-Sims 2019). Joint attention, the mutual focus between the parent and child on an object or event, becomes crucial for a child's development (Kaplan and Hafner 2006). Researchers indicate that parental smartphone use negatively impacts the frequency and quality of this mutual focus (Konrad et al. 2021; Krapf-Bar et al. 2022). This joint attention facilitates young children's learning through imitation, which is foundational because children's initial learning experiences are predominantly observational and heavily reliant on interactions with care givers (Bury et al. 2020; Ewin et al. 2021).

The full impact of the increased use of technology on children's developmental outcomes remains to be explored thoroughly because the findings conflict regarding cognitive and social development during parent-child play (e.g., in Skaug et al. 2018; Konrad et al. 2021; Krapf-Bar et al. 2022). Konrad and colleagues (Konrad et al. 2021) found no immediate decrease in imitative learning when parents are interrupted by mobile device use. Other researchers identified an immediate decrease in joint attention, the number of utterances, and negative language and cognitive consequences (Ewin et al. 2021; Gaudreau et al. 2022; Krapf-Bar et al. 2022; Reed et al. 2017). Without a response or with a delayed response, devices can disrupt the flow of play and lead children to reach out for attention less often because their expectations are not met consistently (Ewin et al. 2021; Krapf-Bar et al. 2022).

The discrepancy in findings may also involve methodological differences. Researchers exploring the effects of children's interactions with parental mobile use mainly take two different approaches to data collection—one focusing on distractions during play and the other on disruptions. Distractions occur when parents engage with their device rather than with their children, such as

checking their phone while the children are playing. In these instances, parents may occasionally look up or speak to the children but remain focused on their devices (Bury et al. 2020; Gaudreau et al. 2022). This diminishment comes from decreased attentiveness, responsiveness, and verbal interaction, which can disrupt the natural flow of play. Children may also seek attention less frequently over time if they anticipate a lack of responsiveness based on past interactions (Christakis 2009; Kirkorian et al. 2009; Radesky et al. 2015; Ewin et al. 2021; Krapf-Bar et al. 2022).

Exploring the effects of technology-enhanced toys and their affordances, Bergen and colleagues found that the affordances of technology-enhanced toys prompted types of play between parents and children that generalized to their interactions with their home environment (e.g., playing with the toy house by ringing the toy doorbell generalized to ringing their own real doorbell). Further, parents reflected that playing with such toys promoted motor and academic learning, though the researchers note that there might exist an “optimal” of technology enhancements, that is, for some toys too many enhancements prevent play and communicative interaction (Bergen et al. 2009).

Indeed, research has found that children speak less when they play alone (or with an adult play partner) when using digital devices compared to nondigital toys (Hashmi et al. 2021; Hashmi et al. 2022). Other research has also found that parents and toddlers talk and collaborate less when reading e-books on a tablet than when reading paper books (Munzer et al. 2019). However, looking at intergenerational play using digital devices, research has found that playing with digital games can promote intergenerational interactions (triadically between grandparents, their children, and their grandchildren) by providing an accessible communal activity that enhances interactions, prosocial behaviors, and the sharing of knowledge (Costa and Veloso 2016; Volda and Greenberg 2012). Thus, the research on the impact of digital devices on children’s play with their parents and other care givers paints a mixed picture, which is likely to become further complicated as artificial intelligence becomes integrated into digital gaming and potentially into technology-enhanced toys.

### *The Influence of Care Giver Gender Roles in Various Family Structures on Children’s Play*

Gender—both that of the parent and that of the child—may influence parental engagement in play. Researchers have consistently found a trend in which fathers across cultures and child age ranges tend to engage in more active, physical, and

rough-and-tumble play with their children (see Amodia-Bidakowska et al. 2020 and Robinson et al. 2021 for reviews of father-play research). Some research has characterized this as fathers behaving as an “age mate” during play by both challenging children but also by following their lead. Mothers, on the other hand, have been found to structure and guide children’s play more than fathers (John et al. 2013). Although there seems no differences between the general playfulness of mothers or fathers (Menashe-Grinberg and Atzaba-Poria 2017), mixed results characterize imaginary or pretend play, finding in some studies no differences between the engagement of mothers or fathers in this type of play (Amodia-Bidakowska et al. 2020) and others finding that mothers more frequently engage in pretend play (Lindsey and Mize 2001).

The child’s gender has also been found to elicit different behaviors in mothers and fathers. For example, mothers are more likely to engage in active and physical play with boys than with girls (Schoppe-Sullivan et al. 2013; Tauber, 1979), whereas fathers, in some research, engage in this type of play regardless of their children’s genders (Schoppe-Sullivan et al. 2013). But according to other research, it occurs more frequently when fathers play with their sons (Lindsey and Mize, 2001). Instead of engaging physically with their daughters, some mothers participate in more social play (talking, instructing, and complimenting) with them than with their sons (Tauber 1979). Further, daughters appear to elicit pretend play when playing with their mothers and fathers, whereas this does not appear to be the case for sons who engage in pretend play mostly with their mothers (Lindsey and Mize 2001).

We know less, however, about the influence of parent gender on play behaviors in diverse family systems. For many children, the research considers their family environment to include a mother and father in the home. But this is not the case for all children, of course, some of whom may be growing up with a single parent, a same-sex parent, or an alternate family member as a primary care giver (e.g., a grandparent). The available evidence regarding children’s play practices in single-parent and same-sex parent families has largely focused on gender-stereotyped play, and findings remain mixed.

Some researchers have found that children in single-mother and lesbian-mother families show fewer gender-stereotyped behaviors, including play behavior (MacCallum and Golombok 2004; Stacey and Biblarz 2001). However, research including lesbian, gay, and heterosexual parent families has not replicated this pattern (e.g., Farr et al. 2017). Then again, other research has found children’s play to be less gender stereotyped in both lesbian and gay par-

ent families than in heterosexual families (e.g., Goldberg et al. 2012). And some research has suggested this pattern appears specifically in lesbian parent families (Goldberg et al. 2012; Goldberg and Garcia 2016). Researchers have interpreted this latter finding as indicating that lesbian parents, in particular, support and encourage play that does not adhere to gender stereotypes because of their own female gender and minoritized sexual orientation (Goldberg and Garcia 2016).

This raises questions, therefore, with regard to children's play in families with trans and nonbinary gender identities. Some preliminary evidence exists that children of nonbinary and trans parents show less gender stereotyped play behavior compared to standardized data for one measure of gender-stereotyped play behavior (Riskind and Tornello 2022). Observing the dearth of research on children's play with their grandparents and the uniqueness of this relationship, we know less regarding the differences in play that result from the gender composition of grandparents and their grandchildren.

#### *Benefits for Child Development of Parental and Care Giver Involvement in Play*

Given that children's play, and pretend play in particular, is associated with benefits in various aspects of children's cognition, such as executive function, language, and creativity (Lillard et al. 2013), it is perhaps unsurprising that such outcomes are present when parents and children play together. Indeed, the involvement of a parent in play has been found to result in more significant amounts of pretend play than when children play alone (Fiese 1990; Roggman et al. 2004). This relationship was evident for children's play for mothers (Fiese 1990) and fathers (Roggman et al. 2004), which is associated with cognitive, language, and emotional development (Roggman et al. 2004). Play between children and their parents notably benefits many developmental domains for various reasons (Hiniker et al. 2018).

With respect to children's language, play offers a particularly rich context for parent-child conversations (Holme et al. 2022). For example, mothers use more complex language and communication techniques when interacting with their children during play compared to book reading (Doering et al. 2020). In turn, associations appear to exist between the complexity of a mother's speech and that of her children, but only in relation to play. Similarly, Masur and Gleason (1980) found that differences in parent-child conversations during play were associated with children's language. In their study, fathers' speech during play generally consisted of a more varied vocabulary and topics and were more

linguistically and cognitively demanding of the children. In response, children produced more language with fathers than with their mothers.

Culture may also play a role in moderating these associations. For example, Doering and colleagues (Doering et al. 2020) found differences in language between toy play and book reading. They also found associations between mother and child language, but more so for mothers in the United States than for mothers in Germany, possibly reflecting cultural differences in parenting.

With regard to executive function, parent-child interactions during play appear to have a similar distinct impact on children's development. "Positive" parenting behaviors (e.g., warmth, sensitivity, and synchrony) and "cognitive" parenting behaviors (e.g., scaffolding and cognitive stimulation), which are often investigated in observed parent-child interactions during play, are associated with the development of executive function in children (Koşkulu-Sancar et al. 2023).

Conversely, "negative" parenting behaviors (e.g., controlling, inconsistent, or detached behaviors), often observed in interactions during play, are negatively associated with children's executive function (Koşkulu-Sancar et al. 2023). For example, Bindman and colleagues (Bindman et al. 2013) found associations between parents' use of "management speech" in the form of directing and commanding their children to be negatively associated with children's executive function. Meanwhile, they found the use of management speech from parents in the form of suggestions and questions during play to be positively associated with executive function.

A more complex relationship might be at play regarding children's creativity. Some research indicates that the presence of a parent during play inherently results in a more significant amount of pretend play and creativity (Fiese 1990; Roggman et al. 2004), but other research has found that children engage in less creative play themes when playing with their siblings in the presence of their mothers compared to mothers being absent (Howe and Bruno 2010). It appears to be that, similar to language and executive function, creativity flourishes in parent-child play when parents are involved in play in such a way that their involvement models creativity but allows children to express their own creativity without attempting to control the play or impose particular rules or roles (Ellermeyer 1993).

As with cognitive outcomes, children's play generally correlates to advantages in social and emotional outcomes (Lillard et al. 2013), but there may also be a particular benefit to parents being involved in play. The continuum of

playful learning illustrates the varying levels of child-parent involvement in play experiences. On one end of the spectrum, free play grants children the freedom to explore, discover, and play independently with their parents observing. This gradually transitions toward more guided play with active participation from parents and, ultimately, parent-led structured play on the opposite end of the continuum. Even in the context of free play, we find it essential to recognize its benefits for children and to promote it actively by providing the necessary time, space, and materials. During social play, complementary interactions become evident when a more experienced partner scaffolds the play for the less experienced partner by modelling, leading and coordinating the social interaction (Howe et al. 2005; Leach et al. 2019a; Leach et al. 2019b; Howe et al. 1998; Vygotsky 1967), and often, parents are children's first teachers and play partners in their developmental and educational paths (Mares and McMahon 2020; Cordy and Wilson 2004; Simoncini et al. 2023).

Generally, parental playfulness in everyday interactions is associated with children's emotional regulation (Shorer et al. 2021). However, the different ways parents play with their children lead to different outcomes. For example, parents' and children's cooperation (i.e., complying with proposed initiations) during physical and pretend play has been found to be associated with children's social competence (Lindsey and Mize 2000). Conversely, in a systematic review, Schneider and associates (Schneider et al. 2022) found that when parents' involvement in play becomes restrictive and lacking in warmth and sensitivity, this involvement suggests increased externalizing behavior problems and is negatively related to children's popularity (MacDonald and Parke 1984). And positive affect, expressed during play, becomes associated with fewer behavior problems (Schneider et al. 2022). The types of conversations and language used when parents play with their children also influence socio-emotional outcomes, particularly those involving theory of mind. For example, during play, parents often refer to children's internal mental states (e.g., desires, cognitions, and emotions) associated with children's developing social understanding, including theory of mind and emotional understanding (Tompkins et al. 2018).

Differences in how mothers and fathers play with their children are also associated with socio-emotional outcomes. For example, fathers engage in more physical play with their children than mothers (Amodia-Bidakowska et al. 2020; MacDonald and Parke 1984), which is in turn associated with children's engagement with peers, social competence, emotional skills, and self-

regulation (MacDonald and Parke 1984; StGeorge and Freeman 2017). On the other hand, mothers being particularly talkative during play is associated with peer engagement, especially for boys (MacDonald and Parke 1984). Indeed, fathers' engagement in play with their children is positively associated with children's self-regulation and socio-emotional abilities and is considered to provide a unique contribution to children's social development (Amodia-Bidakowska et al. 2020).

Although the direct effects of alternative care givers on children's cognitive abilities are infrequently documented, research specifically examining developmental outcomes associated with play remains particularly scarce. Consequently, we reviewed related literature that may offer relevant insights. A study by Tompkins and Feng (2025) examined how grandparent support moderates the relationship between American families' SES and children's cognitive development. The researchers analyzed data reporting on 1,047 grandparent-grandchild relationships involving three- to five-year-old children. They found that SES (measured as family income and parents' average education level) was significantly associated with preschoolers' cognitive development, which included receptive and expressive language, literacy, and numeracy skills. The negative impact of low SES on cognitive development was reduced when grandparents provided higher levels of support (financial, instrumental, emotional, and informational). Furthermore, Lu and colleagues (Lu et al. 2022) examined how parents and grandparents interact with children and how these differences influence children's creative performance. As grandparental involvement in child care increases, it becomes essential to understand its impact on children's development compared to parental engagement. The study found that children's creativity improved significantly after interactions with parents, whereas interactions with grandparents resulted in little to no change. Their findings suggested that, while parents and grandparents play important roles in children's lives, parent-led interactions are more effective in fostering creativity.

Huang (2021) examined Chinese grandparents' beliefs about play and their involvement in grandchildren's play. The study found that they believed play is significant for their grandchildren and can contribute to their education. It also has academic significance, reflecting how grandparents perceive play as contributing to children's development, future educational success, and academic skills. Given that children spend some time living or visiting grandparents, these studies highlight that grandparents are involved in play and have strong opinions about the benefits and how it would support children's

cognitive development, yet they also point to the need for further exploration of ways to enhance grandparent-child interactions to support children's development better.

## Conclusion

The involvement of parents and other care givers in children's play significantly influences their cognitive, social, and emotional development. This involvement has evolved over time, shaped by cultural norms, diverse family structures, shifting care-giving responsibilities, and environmental factors. Our review highlights the importance of high-quality interaction, in which parents and care givers scaffold play to enhance language acquisition, creativity, problem solving, and self-regulation—all foundational to children's learning and well-being.

A key insight from this review is the need for children to lead their play activities, with adults facilitating rather than directing interactions. Although specific outcomes from parental involvement and the developmental outcomes are clear, the link of other care givers' involvement to children's development is less documented. While digital technologies are increasingly present in family life, research suggests that traditional toys foster richer engagement than electronic or digital play experiences. Curating a play that balances technological advancements and traditional toys remains essential in shaping the quality of care giver-child interactions. Despite the growing interest in loose parts play (LPP) and its potential to foster creativity and problem solving, research has not kept pace with its rising popularity (Gibson et al. 2017; Cankaya et al. 2023). More empirical studies are needed to assess its effectiveness and identify best practices for parents and care givers (Cankaya et al. 2023; 2024).

Although parents, particularly mothers, are traditionally seen as primary facilitators of play, extended family members, especially grandparents, also play an important role by providing intergenerational learning opportunities. Grandparents and grandchildren often emphasize emotional bonding and love in their interactions, though their play tends to be more structured and less spontaneous than play involving parents. Similarly, while intergenerational play is recognized as beneficial, the role of grandparents in supporting children's cognitive and social development remains understudied. Further research should explore how different care givers contribute to children's play, particularly in diverse family structures. We found a lack of research on how other extended family members, such as aunts and uncles, engage in children's play.

Gender roles further shape play engagement. Fathers tend to participate in rough-and-tumble play, supporting social competence and self-regulation, while mothers are more likely to scaffold play through verbal and guided interactions. Nontraditional family structures, including same-sex parents, often encourage less gender-stereotyped play, fostering greater flexibility in play dynamics. Factors related to SES also impact play opportunities. Higher-income families generally provide structured play environments and greater access to enriching toys and materials, while financial stress can limit care giver engagement and reduce access to quality play environments. Additionally, cultural norms shape perceptions of play, some cultures prioritize interactive, imaginative play, while others emphasize structured, academically focused activities, influencing how care givers facilitate learning through play.

This review identified two critical areas for future investigation—first, the impact of technology, particularly smartphone presence on children’s play, as digital media increasingly permeates family interactions, and second, the variability of play experiences across cultural contexts, particularly regarding how different cultures value play and how care givers participate. Addressing these gaps helps us understand how to support better high-quality, developmentally beneficial play experiences for young children in diverse family structures.

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