

15 The Role of Fathers in Caregiving

Natasha J. Cabrera, Yu Chen, Avery Hennigar,
Angelica Alonso, and Rachel Ghosh

Throughout most of human history, mothers' role in the family has been to provide emotional support and care for their children whereas fathers' role has been mostly instrumental, that is, to provide financial support for their children with limited involvement in day-to-day parenting (Cabrera et al., 2000). This dichotomous view minimizes the financial contribution mothers make to their families and the emotional support that fathers provide for their children. It is clear that this restrictive and reductionist view of parents has outlived its purpose. Over the past few decades, dramatic sociocultural and economic shifts in families, such as increased out-of-wedlock births and increased women participation in the labor force, have led to significant changes in both women's and men's roles in the family (U.S. Bureau of Labor Statistics, 2019).

Beginning in the 1960s, trend data show that fathers have been increasingly engaged in the direct care of their children (Bianchi et al., 2012). National data from 2011 to 2013 show that the majority of resident fathers with children under age five spent their time in caregiving (e.g., diapering/toileting), reading, and other activities, such as eating dinner together and playing, at least once a week with their child (Astone et al., 2016). And as women's participation in the labor force increased, so did fathers' day-to-day responsibility for the care of their young children. In 2016, fathers made up 17 percent

of all parents who stayed at home, representing an increase in stay-home fathers from 4 percent in 1989 to 7 percent in 2016 (Livingston, 2018). The time fathers spend with children under 6 years is divided among various activities, with most of the time spent in playing and physical care and less time spent in reading and educational activities (U.S. Bureau of Labor Statistics, 2020).

These statistics suggest that the emotional versus instrumental dichotomy of roles assigned to fathers and mothers is no longer an accurate portrayal of contemporary parenting in the United States. The erosion of traditional gender roles about who is in charge of caregiving and breadwinning raises the need to further understand how fathers are involved in childrearing and how their caregiving is related to children's developmental trajectories.

In this chapter, we synthesize the empirical evidence mostly from the United States on fathers' caregiving roles and impacts on children across developmental domains and from early childhood to adolescence. To the degree possible, we also include studies conducted in other countries to illustrate cross-cultural patterns of father caregiving. We also discuss the theoretical and methodological approaches used to conceptualize and assess fathers' contributions to children's development. Lastly, we draw implications from existing findings to guide policies and programs targeting families and children.

Fathers in the United States: Demographic Considerations

Most fathers in the United States live with their children under 18 years (U.S. Census Bureau Current Population Survey, 2020). Even though the proportion of children under age 18 living in two-parent families has been decreasing since the 1960s, in 2020 the majority of children lived in two-parent households with their biological/adoptive married parents (U.S. Census Bureau Current Population Survey, 2020). Of the proportion of children living in single-parent households in 2020, most (82 percent) lived with their mothers and only a small proportion (18 percent) lived with their fathers (U.S. Census Bureau Current Population Survey, 2020).

Approximately, 25 percent of American children do not live with their fathers (U.S. Census Bureau Current Population Survey, 2020). In 2020, 79 percent of non-Hispanic White children lived in married or cohabiting two-parent (biological or adoptive) families compared to 68 percent of Hispanic and 41 percent of Black children (U.S. Census Bureau Current Population Survey, 2020).

It is important to underscore that father non-residency does not necessarily mean non-involvement. The formation and dissolution of Black and Latino families is historically rooted so that the adaptation of what it means to be a family is different for other groups (McAdoo, 1991; McAdoo & McAdoo, 1997; Manning & Brown, 2006). Marriage is considered the most stable form of family because it provides children with stability and economic security, which, in turn, ensure optimal wellbeing for children. But marriage is most beneficial for White, not for Latino or Black families (Manning & Brown, 2006). Married White families tend to be of higher educational levels than cohabiting White parents, but among Latinos and Black families, educational levels

are similar for married and cohabiting couples, making marriage less economically beneficial for Latino and Black children.

Theoretical Approaches

In contrast to research on the influence of mothers on children that has been dominated by attachment theory, research on fathers' influence on children has been either atheoretical, that is not guided by any particular theory, or driven by a variety of content-specific micro-theories (Cabrera, Fitzgerald, et al., 2007; Cabrera, Fitzgerald, et al., 2014). The relative lack of attention to theoretical framing in understanding father effects on children's development reflects, in part, the multidisciplinary nature of the research on fathers as well as the "catching up" to research on mothers approach taken especially by scholars examining the impact of parenting on children's development (Schoppe-Sullivan & Fagan, 2020). Theories and conceptual models are important because they enable researchers to delineate how patterns of parent-child interactions and caregiving influence the development of children's language, cognitive, and social-emotional skills (Grusec, 2017). The most commonly used theoretical frameworks to study father caregiving are the bioecological model and family systems theories (Bronfenbrenner & Morris, 2006; Cox & Paley, 1997). Other models that consider the multiple contextual influences on parent-child interactions include parenting process models and models that derive from attachment theory (Belsky, 1984; Cabrera et al., 2007, 2014; Paquette, 2004). In addition to these models, parenting research, more broadly, has been framed by principles or core ideas that include global versus specific parenting behaviors, domains of parental engagement, and the timing of early experiences, including parenting behaviors (e.g.,

Baumrind, 1967; Bornstein, 2006; Sameroff, 2010; Wachs & Chan, 1986).

Overall, father–child interactions, and caregiving more generally, have been studied using multiple theoretical perspectives that share one common principle: fathers impact their children’s development in the context of a network of relationships embedded in particular socio-cultural contexts through direct and indirect effects on children (Cabrera, Fitzgerald, et al., 2014; Coley, 2003; Suizzo et al., 2017; Verhoeven et al., 2012). These relationships are dynamic, complex, and change over time.

Methodological Approaches

The study of how fathers influence children’s development has also used a variety of methodological approaches and measures, including quantitative (e.g., survey) and qualitative (e.g., focus groups, semi-structured interviews) methodologies. Methodological and conceptual challenges in conducting research on fathers include the *identification of fathers* (i.e., who is the father of the focal child), *recruitment and retention of father* participants into research studies and programs (Mitchell et al., 2007), and the lack of consensus on theoretical framing about *how fathers should be involved with their children* to foster their development. The various ways to define father involvement (e.g., instrumental versus emotional support) have resulted in a variety of survey instruments that makes comparison of findings across studies arduous, at best.

Early studies of the impact of fathering behaviors on children’s development relied on mothers as proxy respondents for fathers. In contrast, more recent studies have relied on fathers themselves to tell their own stories (Cabrera, Fitzgerald, et al., 2007). The methodological shift from maternal perceptions of father involvement to fathers’ reports of their own involvement has been the single most

important innovation on how researchers collect data on fathers (Cabrera et al., 2002). Unfortunately, it is not the norm. Maternal perceptions of father involvement are still prevalent even though they only provide information about maternal perceptions of fathers rather than about father caregiving. It is important that fathers’ own voices and views about their parenting behaviors and beliefs be included in studies of fathers and parenting. If this is not possible, it behooves researchers to clearly use “parenting” only when both parents are included and “maternal parenting” when only mothers are included.

A common approach to studying fathers is the use of small-scale studies, which are typically based on samples of convenience that may underrepresent low-income and ethnic and racial minority fathers, and mostly include maternal perceptions of fathers’ behaviors. On the other hand, the availability of nationally representative data sets has been an invaluable resource to the field because they enable researchers to conduct studies that generalize to the larger population. These studies are especially helpful to policymakers interested in promoting father involvement in a way that is beneficial for children. Although there is some overlap, large-scale studies in the United States can be categorized according to two foci, those that focus on *becoming a dad* (e.g., the National Survey of Family Growth) and those that focus on *being a dad* (e.g., the Early Childhood Longitudinal Study–Birth Cohort) (Cabrera et al., 2004).

Correlates of Father Caregiving

One of the most salient findings in the fatherhood literature is the heterogeneity in how fathers are involved in their children’s lives (Cabrera, Hofferth, et al., 2011). Some fathers are highly involved and invested in the day-to-day caregiving of their children whereas others

are less so. A considerable body of research has found that fathers' caregiving varies across a number of individuals, family, and community and cultural dimensions. These factors influence fathers' involvement and parenting behaviors as hypothesized by the parenting process model (Belsky, 1984) and the heuristic model of the dynamics of paternal influence on children (Cabrera, Fitzgerald, et al., 2014; Cabrera, Fitzgerald, et al., 2007). Here, we highlight research on the most commonly investigated covariates of father involvement: sociodemographic (e.g., family structure, education, income), psychological (e.g., depression), and neurobiological (e.g., levels of testosterone) characteristics.

Multiple studies have shown that fathers' residential status and education are significantly related to fathers' expenditures of time and money on their children. Married fathers and those with a high school diploma are more frequently engaged in literacy activities with their toddlers than unmarried fathers and those without a high school diploma (Cabrera, Hofferth, et al., 2011; Cabrera et al., 2008; Leavell et al., 2012). A small-scale study of low-income African American and Latino fathers found that fathers with less than a high school education were more likely to talk less often to their children and use lower-quality language input during their interactions with children (Malin et al., 2012).

Although fathers' resources, such as education and family structure, are significant contributors of father involvement, there are other characteristics that trump parents' resources. Controlling for fathers' education, mental health, and family structure, a study with a national sample of ethnic minority fathers found that African American and Latino fathers reported more frequent engagement in caregiving and physical play activities than White fathers (Cabrera, Hofferth, et al., 2011). These findings suggest that fathers'

behaviors might be rooted in cultural expectations and beliefs about their role in children's lives. Although studies about how culturally specific values and beliefs motivate fathers to be involved is quite scarce (e.g., Aldoney & Cabrera, 2016), there is empirical evidence that supports this hypothesis. Leavell and colleagues (2012) found that compared to White fathers of sons, African American and Latino fathers of sons reported the highest levels of engagement in caregiving (e.g., put child to bed), play (e.g., play outside), and visiting activities (e.g., visit relatives). Similar patterns of involvement favoring ethnic minority fathers has been reported with nonresident fathers (Cabrera et al., 2008).

Parents' mental health, especially during the early years, is a significant predictor of children's maladjustment because depressed parents are less likely to be responsive and attentive to their children's needs during this critical time of development (Nuttall et al., 2019; Paulson et al., 2011). Little is known, however, about the effects of paternal depression on children's development (Wilson & Durbin, 2010). A meta-analysis with 28 empirical studies showed that paternal depression had significant but small negative effects on parenting, with depressed fathers demonstrating decreased positive and increased negative parenting behaviors (Wilson & Durbin, 2010). Other studies, including one that used national data, found that fathers across race and ethnic groups who reported fewer depressive symptoms participated more frequently in learning activities (e.g., reading, playing, teaching) with their children at 24 months (Baker, 2014; Nuttall et al., 2019).

Over the last couple of decades, advancements in understanding the biological process of human behavior have resulted in significant insights into the neurobiology of fathers' caregiving behaviors. Most of this work suffers from the inevitable methodological constraints

common to that type of research such as using samples of convenience and cross-sectional designs. Hence, generalizability of these findings is limited. Nevertheless, there are important insights from this work that could help us better understand how to promote desirable father caregiving behaviors among fathers (Abraham & Feldman, 2018).

A significant insight from studies on hormones such as oxytocin (OT), critical for lactation and maternal care, and vasopressin (AVP), which men experience more strongly because it interacts with the male sex hormone testosterone (T), suggests that they are important for caregiving behaviors in mothers and fathers. High levels of OT and AVP are found to be reciprocally associated with more affectionate contact and more stimulatory contact with infants, respectively (Apter-Levi et al., 2014). Studies have shown that both mothers and fathers of newborns have similar and consistently high levels of OT, but the increased levels of OT elicit different parenting behaviors from mothers than from fathers (Gordon et al., 2010). Mothers are more likely to engage in affectionate contact, mutual gazing, and vocalizations with infants, whereas fathers tend to perform positive arousal and stimulatory contact with infants, such as moving the infant around the room (Gordon et al., 2010).

Levels of T have also been implicated in parenting behaviors. A study with a small sample of couples found that maternal T levels were neither stable nor predictive of mother–infant synchrony (i.e., affectionate responses to infants' social signals). In contrast, paternal T was stable across the first six months after the birth of their first child and fathers with higher levels of T displayed lower levels of father–infant synchrony (Gordon et al., 2017). Similarly, a study of Filipino fathers found that fathers who reported three hours or more of daily childcare had lower

T compared to fathers who were not involved in care (Gettler et al., 2011).

Overall, the emerging empirical evidence on fathers' and mothers' hormonal levels is mostly descriptive, indicating that caregiving hormones affect both mothers' and fathers' parenting behaviors but in distinct ways: OT and AVP promote warm and sensitive contact with the child and T is negatively associated with caregiving. These caregiving hormones shape how parents structure their social interactions with children.

Fathers' Caregiving and Children's Development

Decades of developmental science research have shown that parenting, broadly construed, is unequivocally the most significant influence on children's development, in particular in the early years (Bernier et al., 2010). In this section, we review studies examining the role of fathers' caregiving for children's cognitive, language, academic, and social-emotional skills from early childhood to adolescence. Given space considerations, we do not provide a systematic review of the literature, but rather focus on a select set of notable studies published over the last two decades and synthesize the most recent, emerging literature on how fathers' caregiving matters for child development.

Father Caregiving and Children's Cognitive and Language Skills

Cognitive Development

Specific parenting behaviors, such as reading or telling stories, as well as the quality of interactions between parents and children, that is how responsive parents are to the child's signals in a developmentally appropriate and prompt manner, are significant contributors

to children's cognitive development (Bruner & Bornstein, 1989). Contrary to popular belief, fathers are as sensitive and responsive to their children's needs as are mothers and they influence children's development in similar ways (Cabrera, Shannon, et al., 2007). During play interactions with children, fathers who are observed to be sensitive and provide high levels of cognitive stimulation (e.g., teaching or scaffolding the child's current abilities) to their toddlers have children with better cognitive scores on the Bayley Scales of Infant Development (e.g., problem-solving, early number concepts) at age three than fathers who are less sensitive and stimulating (Cabrera, Shannon, et al., 2007; Easterbrooks & Goldberg, 1984; Ryan et al., 2006; Tamis-LeMonda et al., 2004). A small-scale study of families in the United Kingdom, controlling for parents' education, socioeconomic status (SES), and family income, found similar associations between father sensitivity during parent-child play interactions at 12 months and toddlers' cognitive skills (assessed using the Bayley) at 18 months (Malmberg et al., 2016).

Fathers' caregiving is also associated with children's executive function (EF) skills, although the evidence is quite limited. The neglect of studies in this area is notable because EF skills are foundational to the development of other key cognitive skills, such as theory of mind, are malleable, and have significant implications for children's academic achievement (Carlson et al., 2004; Clark et al., 2010). Children's EF consists of three main components: working memory (holding and manipulating information in one's mind), cognitive flexibility (switching between rules and adapting thinking to different situations), and inhibitory control (stopping impulsive behaviors; for review see Carlson et al., 2013). The empirical evidence thus far shows that among low-income White

and Black parents, paternal sensitivity at 24 months, but not earlier, is related to better EF scores at age three (Towe-Goodman et al., 2014). Other studies with 30-month-old children have shown that these associations were significant only for Black fathers but not Latino fathers (Owen et al., 2013). A potential explanation is that due to high levels of employment, Latino fathers have less contact with their children compared to Black fathers, who are more likely to be unemployed but have more time to spend with children (Owen et al., 2013). The role that ethnic background plays in the development of these cognitive processes in children is really in its infancy. But these findings have implications for identifying cultural-specific parenting practices – based on parents' beliefs and norms about appropriate ways to foster and promote developmental skills – that differentially influence children's skills. In other words, strategies used by middle-class White families to promote children's development are not necessarily the only strategies or the “correct” strategies to achieve this goal. This is an area ripe for future investigation.

In contrast to how positive parenting practices are related to children's cognitive development, the way in which negative parenting undermines development, in particular among fathers, has been relatively neglected. A study with White middle-class families found that more paternal control (e.g., providing excessive help), but not autonomy-supporting behaviors (e.g., encouraging child to participate), at age three was concurrently and significantly negatively associated with lower EF skills at age three (Meuwissen & Carlson, 2015). Studies of paternal spanking are virtually nonexistent. A study with mothers and fathers found that only mothers' spanking (not fathers') had a significant association with receptive vocabulary and externalizing behaviors (MacKenzie et al., 2013). And a study of

Dutch families found that self-reported paternal harsh parenting (e.g., screaming angrily at child) at age three was related to weaker maternal-reported metacognitive (i.e., planning) and inhibitory self-control skills of children at age four (Lucassen et al., 2015).

Language Development

Language scholars frame their work within a sociocultural framework that children learn language in the context of rich and reciprocal social interactions with significant others (Vygotsky, 1978). Parents influence early language development through linguistic interactions with their children during quotidian activities, such as playing, and through engaging in literacy activities (e.g., reading, singing, telling stories). To assess the frequency and quality of literacy activities, studies use both maternal reports and observational data coded from parent–child interactions across the early years in childhood (from toddlerhood to kindergarten) (Pancsofar & Vernon-Feagans 2010; Malin et al., 2014; Reynolds et al., 2019). The frequency with which parents read to their children is a hallmark of most educational interventions in the United States (Xie et al., 2018). Thus, the finding that mothers read more often to their children than fathers is of consequence (Cabrera et al., 2020; Duursma, 2016). Studies that include mothers and fathers confirm that mothers read more often than fathers (Baker, 2014; Baker, 2013; Cabrera et al., 2020; Duursma, 2014). But these studies also find that fathers' reading frequency at 24 months, rather than mother's reading frequency, is more important for children's language skills (Cabrera et al., 2020; Duursma, 2014). The one exception is a study conducted with Finnish children – although both mothers' and fathers' literacy activities were associated with children's vocabulary,

mothers' literacy activities showed stronger associations (Lyytinen et al., 1998). These findings might reflect cohort effects as well as demographic differences and differential cross-cultural investments in early childhood.

The finding that among parents in the United States fathers' frequency of reading matters more than mothers' for children's language skills might be explained by findings that fathers use higher-quality linguistic inputs with their children than mothers. That is, fathers use what researchers have called “metalingual talk,” such as asking children to label objects in the book, recasting what children are trying to say (e.g., “no, it's not a cat, it's a dog”), and using more *wh*-questions (e.g., “where is the cat?”), which are more conversationally challenging for children and consequently a better predictor of language skills (Malin, Cabrera, & Rowe, 2014; Varghese & Wachen, 2016). Several studies have shown that during interactions with toddlers or during shared book reading, fathers tend to produce more *wh*-questions than mothers (Leech et al., 2023; Malin et al., 2014; Rowe et al., 2017).

Another line of inquiry examines whether different types of home activities elicit different types of linguistic input. When researchers compare language input during book reading versus toy play with toddlers, they find that African American and Latino father–child dyads produce significantly more word types, questions, and labels per minute during book reading than during toy play. However, fathers' mean length of utterance tends to be significantly greater during toy play (Salo et al., 2016). It is unclear, however, whether these differential inputs are related to language skills. Cabrera and colleagues (2017) found that fathers' and mothers' playfulness (i.e., levels of creativity, imagination, humor, and/or curiosity during play) in toddlerhood was

associated with children's vocabulary skills at prekindergarten. These findings open the door for future studies on whether some contexts are more likely to prime parents to talk more to their children than others, which would be informative for parenting programs to include in their curricula.

Father Caregiving and Children's Social-Emotional Development

A critical milestone of early childhood is the development of social and emotional skills that enable children to interact with others in meaningful ways. The development of these skills during the early years is significant because they set off developmental cascades that affect other skills across domains of development (Masten & Cicchetti, 2010). Children learn to be socially competent, that is, to communicate, regulate their emotions, take turns, and learn how to get along with others, when they experience consistent and positive social interactions with their caregivers starting from birth (Zeman et al., 2006; Cabrera, 2012). Parents' "serve and return" interactions are reciprocal and essential to their children's emotional experiences by providing stimulation through touch, vocalizations, and facial expressions during infancy and by engaging in sensitive, reciprocal social exchanges as children get older (Papoušek & Papoušek, 2002). At first, fathers and mothers are external regulators of infants' emotions and arousal, but as children get older, intrinsic and extrinsic processes come together to help the child monitor, evaluate, and modify emotional reactions to achieve their goals (Eisenberg & Morris, 2002; Eisenberg & Spinrad, 2004; Thompson, 1994).

Social-Emotional Skills During Early Childhood

Studies examining the role of fathers in the early development of social-emotional skills

have focused on fathers' parenting practices and the quality of their relationship with their children. As has been demonstrated with mothers, the quality of the interactions between fathers and children is robustly related to children's social adaptation (Keown, 2012; Lunkenheimer et al., 2020; Rispoli et al., 2013). In samples of low-income families, fathers who are attuned to their children's cues, try to understand what their children are communicating, and respond in sensitive ways, have children who are observed to be more sociable and emotionally regulated (Cabrera et al., 2007). Other observational studies with low-income families find that during play interactions with their toddlers, fathers who use regulatory behavior strategies (i.e., physical support and modeling) and regulatory language (e.g., direct commands) at 24 months had children with greater sustained attention and emotion regulation, respectively, at prekindergarten (Malin, Cabrera, Karberg, et al., 2014). In other words, higher quality father-child interactions and relationships are predictive of children's positive socioemotional adaptation.

Mothers and fathers' parenting strategies change over time according to their children's developmental age. As children get older and develop better language skills, fathers increasingly rely on verbal strategies to help children regulate their emotions. In a study of White, educated mothers and fathers and their three-year-olds, fathers who talked more about negative emotions and provided more causal explanations about desires had children who were better able to attribute mental states to others and to themselves (i.e., theory of mind) at age three (LaBounty et al., 2008). The attribution of mental states (e.g., "you're sad") enables children to regulate their emotions and adapt their behaviors accordingly. Similar findings have been reported with White rural families: fathers who reported

being more positive about their life and used more positive parenting practices (e.g., responsive to child's verbalizations) at ages three and four had children with higher parent-reported social competence (e.g., "helps with everyday tasks") at age five (Jeon & Nepl, 2019).

As in other areas of research, there is a dearth of research that considers how parents' beliefs, values, and norms about childrearing vary within and across cultural groups in ways that influence their social-emotional socialization practices. Studies that have compared mothers to fathers find parent gender differences in the way parents socialize their children to manage their emotions. In a cross-sectional study of Chinese families in China, Chinese fathers reported providing more controlling responses (i.e., punish and minimize) to their preschoolers' negative emotions, as compared to Chinese mothers. This was significantly related to preschoolers' internalizing and externalizing behaviors (Yu et al., 2015). Studies with White middle-class families in the United States show that during a discussion of emotions while reading with their three-year-old children, mothers used significantly more "think" and "emotion" words than did fathers (LaBounty et al., 2008). Similar findings have been reported with ethnically diverse families. In a study of middle-class, White and African American families, fathers engaged in less emotion coaching behaviors (e.g., labeling emotions, teaching children about emotions) and showed less positive affect than mothers (Gerhardt et al., 2020). Yet, fathers who used more emotion-coaching and showed more positive affect had children with more positive emotional expression concurrently a year later compared to fathers who used less (Gerhardt et al., 2020).

School-Age Children

The bulk of studies on how fathers' caregiving influences the development of social skills

among school-age children (ages 6 to 12) has focused less on the paternal behaviors and father-child relationship qualities that promote social competence (e.g., social self-efficacy) and prosocial behaviors (e.g., positive peer relationships), and instead has focused more on the aspects of fathering that explain children's behavioral problems. Based on attachment theory, several studies have shown that securely attached school-age children tend to have an increased sense of social self-efficacy (e.g., beliefs in one's competency relative to interpersonal functioning), which is associated with more positive friendships with peers (Coleman, 2003; Diener et al., 2008). Conversely, infants who are insecurely attached with both parents (assessed via the Strange Situation) are more likely to have higher levels of externalizing behaviors at ages six (teacher-reported) and eight (self-reported), as compared to children with a secure attachment to at least one parent (Kochanska & Kim, 2013).

Studies have also shown that certain types of fathering behaviors are more likely to promote children's social adaptation than others. Fathers who use an emotionally open communication style (e.g., emotion-focused reactions to children) during observed interactions with their children are more likely to have children with more constructive coping styles (e.g., greater reliance on cognitive decision making), as compared to fathers who have a less open style of communication. Mode of communication is concurrently linked to greater social competence with peers and fewer internalizing and externalizing symptoms (Gentzler et al., 2005). In contrast, fathers who are overcontrolling (e.g., excessive regulation of children's activities) have children with increased anxiety in elementary school, which in turn predicts anxiety symptoms during adolescence (Verhoeven et al., 2012). These associations also tend to be

bidirectional. Fathers' sensitivity at grade 1 was negatively associated with externalizing behaviors at grades 3 and 5, which in turn, predicted to increased externalizing behaviors in boys at age 15 (Zvara et al., 2018).

Because a quarter of children in the United States do not live with their fathers, it is important to understand under what conditions nonresident father involvement matters for children's wellbeing. Due to methodological issues, assessing the quality and quantity of nonresident father involvement is challenging and is operationalized differently, making comparisons across studies difficult at best (Cabrera et al., 2000). A series of meta-analyses found that the quantity (e.g., time spent with child) and quality (e.g., sensitive and warm interaction with child) of nonresident father involvement with their children was positively associated with children's social-emotional well-being (e.g., level of anxiety) and behavioral adjustment (e.g., externalizing and internalizing behaviors) (Adamsons & Johnson, 2013; Amato & Gilbreth, 1999; Coates & Phares, 2019). Additionally, fifth grade children who reported feeling close to their fathers during middle childhood were rated by their mothers as having fewer behavior problems and more positive peer relationships (Cabrera, Cook, et al., 2011). Other studies have assessed the impact of father absence on children's social development. A large study of low-income, nonresidential fathers found that "father absence" was negatively related to children's behaviors, such that experiencing paternal first-time incarceration between the ages of one and nine increased children's self-reported antisocial behaviors (e.g., internalizing, externalizing, delinquency) and led to a one- to two-month schooling setback (Haskins, 2015). However, paternal incarceration was not related to children's reports of prosocial skills (Haskins, 2015). Father absence during the first years of life that is followed by father presence

creates instability in children's lives, which negatively affects their social adaptation (Karberg & Cabrera, 2017). For instance, family instability during ages three to five, assessed as mothers' report of changes in residential romantic partners, was negatively related to co-parenting support, which was predictive of children's externalizing behaviors at age five (Karberg & Cabrera, 2017).

Adolescents

The empirical evidence on how fathers' caregiving is related to adolescents' social adaptation is quite sparse; most research has almost exclusively focused on the role of mothers (Flouri, 2008). The broad literature on the influences of parenting on adolescents' social adaptation is guided by Baumrind's parenting model that authoritative parenting is best for children's development (1967). Several specific dimensions of authoritative parenting are thought to be key for healthy adolescent psychological adjustment: parental acceptance or warmth, behavioral supervision, and autonomy granting (Steinberg, 1990; Steinberg et al., 1989). This model is based on parenting practices of middle-class parents in California and hence its applicability to other populations is limited.

The importance of fathers in the lives of adolescents has been underestimated and understudied; consequently the empirical evidence is spotty (Flouri, 2008). Fathers develop healthy and nurturing relationships with their adolescents when they spend time together in various activities, which affords adolescents the opportunity to interact and strengthen the bond with their fathers. There is empirical evidence that nonresident father involvement trumps residency as a predictor of children's social adaptation or at least acts as a protective factor. In a study of African American, urban, teenage boys, adolescents who reported

spending time, feeling emotionally supported and viewed their father as a role model, also self-reported fewer internalizing symptoms, greater psychological wellbeing, less delinquency and drug use, and lower rates of school drop-out (Zimmerman et al., 1995). Similarly, adolescents who did not live with their biological fathers were rated as having fewer behavior problems than their peers only when their fathers were highly involved (e.g., internalizing and externalizing) (Carlson, 2006).

Studies in the United States find that the quality of the father–adolescent relationship, including emotional closeness, supportiveness, nurturance, and parenting style, is also significantly related to adolescents' first delinquency, substance use, behavior problems, and emotional health (Bronte-Tinkew et al., 2006; Coley, 2003; Suizzo et al., 2017). Similar findings were reported in studies of Dutch and British families. A study of adolescents living in the Netherlands found that across four ethnic groups (i.e., Dutch, Moroccan, Turkish, Surinamese), adolescents who reported having a negative relationship (e.g., conflict) with mothers and fathers also reported increased aggression and delinquency and lower self-esteem (Wissink et al., 2006). In a cross-sectional study, British fathers who reported being highly involved (e.g., gave praise) with their adolescents also reported that their adolescents had fewer total difficulties and were less hyperactive and exhibited more prosocial behaviors (Flouri, 2008).

Whether patterns of father relationships are the same across adolescents of diverse ethnic and cultural backgrounds is not yet settled, as there are comparatively fewer studies on this population. A study of African American families using interview and questionnaire data found that daughters who self-reported feeling angry with and alienated from their fathers reported higher levels of depressive symptoms and school behavior problems only when their

fathers had low levels of contact (Coley, 2003). Similarly, in a sample of Mexican American families, fathers' perception of neighborhood danger was related to greater levels of fathers' harsh parenting only for fathers who had higher levels of familism. The strong value that family comes first resulted in more harsh parenting for youth, which was related to more youth internalizing problems when youth lived in highly disadvantaged neighborhoods (White & Roosa, 2012). These findings center fathers as important contributors to adolescents' wellbeing and highlight the way in which contextual fathers shape parenting behaviors.

Mechanisms of Father Caregiving

The specific mechanisms (e.g. direct, moderation, or mediation pathways) by which father caregiving matters for children's development are not well understood. Framed within a family systems theory, it is expected that fathers contribute *indirectly* to their children's outcomes, through their effects on other aspects of the family system, such as interparental relationships (Cabrera et al., 2017; Lewin et al., 2015; Majdandžić et al., 2018; Ryan et al., 2006). Studies have found that fathers who are engaged and involved with their children have stronger relationships with their partners, which, in turn, are associated with better cognitive outcomes for children (Cabrera, Fagan, et al., 2011; Varga et al., 2017).

Other studies have shown that the impact of father engagement operates through its impact on earlier skills, which then support the development of later skills. This developmental cascade phenomenon is central to developmental theories that development is cumulative, depending at each period of development on skills that developed in previous periods. Several studies have shown that father engagement during toddlerhood is associated with stronger expressive vocabulary at 24 months,

which, in turn, is associated with better language skills at 36 months (Rowe et al., 2017). High quality of fathers' reading to toddlers has been found to increase children's interest in reading at 24 months, which in turn is related to better language skills at prekindergarten (Malin, Cabrera, & Rowe, 2014). Similar findings have been reported with adolescents. A study of sixth graders from low-income, ethnic minority families found that fathers' warmth affected their adolescents' beliefs about themselves (i.e., feeling more positive about themselves) and their determination to persist in school tasks, which in turn influenced their academic achievement (Suizzo et al., 2017).

A central core of developmental theory is that human development is shaped through interactions with proximal and distal factors in their environment. That is, the association between proximal processes, such as fathers' caregiving, and children's outcomes is moderated (i.e., cumulative or compensatory effects) by other proximal or distal aspects of their environment (Lewin et al., 2015; Majdandžić et al., 2018; Ryan et al., 2006; Martin et al., 2010). Studies have shown that children with both a supportive mother and a supportive father (joint effects) had significantly better cognitive performance than toddlers with two unsupportive or just one supportive parent (Ryan et al., 2006). However, a study using a national data set did not find evidence of joint effects of mothers' and fathers' cognitive stimulation (e.g., reading to child, telling stories) at 24 months on children's reading or math skills at 48 months (Cabrera et al., 2020). In a study of two-parent Dutch families, mothers or fathers' low levels of challenging parenting behaviors (e.g., tickling, chasing, teasing the child) were associated with reduced anxiety only when the other parent exhibited high levels of challenging behaviors (Majdandžić et al., 2018). Similarly, a study of African American mothers found that the negative

effects of maternal depression on infants' distress was reduced only when fathers were reported to be highly involved with their infants (Lewin et al., 2015). The protective effect of fathers has also been observed with adolescents. Having a positive relationship with their fathers protects adolescents from the negative effect that fathers' authoritarian parenting style (i.e., controlling and not warm) can have on adolescents' delinquent behaviors (Bronte-Tinkew et al., 2006).

In summary, the empirical evidence on how father caregiving promotes children's development across domains and developmental periods has increased exponentially over the last decade or so, yet it is still comparatively a fraction of the research on mothers' influence on children. Moreover, most of the research on father effects on children's development is, with some exceptions, based on small samples of convenience; is correlational and cross-sectional; does not examine the ways in which cultural context might play a role; is mostly based on parental reports, with few observational studies especially of fathers and adolescents; and, does not systematically examine the mechanisms through which fathers matter for children. These limitations and data constraints make it difficult to draw causal conclusions, discern directionality of findings, and generalize to other groups.

Despite shortcomings in research on fathers, the descriptive data we reviewed point to several conclusions. First, both fathers and mothers meet their children's basic needs of being loved, emotionally supported, and protected from harm, but there are notable differences in *how* mothers communicate and interact with their children. Second, fathers who are sensitive and cognitively stimulating have children with better cognitive and socio-emotional outcomes, such as working memory, problem-solving, and EF skills, than parents who are not as sensitive. And this is

true across cultural groups. Third, there are differences in terms of the quantity and quality of how fathers interact with their children. Although fathers engage in literacy activities, such as reading, less often than mothers, the linguistic input they provide through reading or linguistic exchanges is of much higher quality than mothers' and therefore more predictive of children's language skills. Fourth, fathers' contributions to children's development seem to be mostly through direct effects, over and above maternal contributions. Fifth, fathers, as mothers, engage in socio-emotional socialization practices that help children develop the emotional and social skills they need to form and maintain meaningful relationships with others.

Implications of Research for Policy and Programs of Parenting

The extensive research on how fathers' caregiving influences children's development has significant implications for research and policy and programs.

At the *research level*, we make several recommendations to advance the field:

- Studies need to be grounded in theoretical frameworks to better conceptualize the role of fathers in caregiving and the mechanisms through which father caregiving influences child development.
- Data should be collected directly from fathers through surveys and/or observations instead of being based on mothers' report of fathers' engagement with children.
- It is imperative to examine father caregiving in an ecological context that includes significant relationships with partners, children, and others.
- We need to move beyond descriptive, correlational studies to conduct studies that can facilitate the examination of the mechanisms

through which father caregiving influences children's outcomes.

- We need to consider placing fathers in a cultural context to understand the unique strengths and challenges of childrearing associated with culturally specific norms, beliefs, and practices. This includes ethnicity and race but goes beyond it by focusing on aspects of fathers' sociocultural contexts that are strongly related to how they parent.
- Father involvement is predicated by multiple factors, among them, depressive symptoms. It is important that we recognize that fathers' mental health is a serious threat to fathers and their families.
- We need better understanding of the specificity that links quality father-child interactions, especially during the critical early years of development, and children's cognitive and socio-emotional skills across developmental stages.
- Longitudinal designs including economically and culturally diverse families would strengthen the current knowledge on father caregiving and its impact on children's development over time.

At the *policy and program* levels, the empirical findings make a strong case for including fathers into parenting programs that aim to increase parental investments in learning activities and in developing higher-quality (e.g., responsive, warm, and cognitively stimulating) interactions with children. Given the influence fathers have on children's development, it is no longer cost-effective or efficacious to design parenting programs only for mothers. Providing support for mothers and fathers to build and maintain healthy relationships with their partners should be a central goal of programs that aim to improve the lives of children; this is equally important for resident and nonresident fathers.

Indeed, fatherhood programs in recent decades have focused on supporting fathers in their role as caregivers and working together with mothers as co-parents. The Healthy Marriage and Relationship Education (HMRE) and Responsible Fatherhood (RF) programs aim to strengthen couples' relationships and help fathers overcome barriers to become more engaged in their children's lives (Alamillo et al., 2020; Patnaik & Avellar, 2020). These programs differ substantially from the traditional child support programs that enforce fathers' financial contributions to the child (Osborne, 2020). However, fathers often face substantial barriers that prevent them from participating in those programs. Fathers' inability to participate in programs reflects work schedules and non-resident status, traditional beliefs about gender roles such that men should be breadwinners and women should be caregivers, and providers' ability to adapt the services to fathers' needs (McBride et al., 2017).

Policies that facilitate prenatal involvement and postnatal involvement are critically important to signal to fathers that society at large values their parenting roles. Prenatal involvement has long-term effects on father involvement in their children's lives (Cabrera et al., 2008). Paternal leave policies enable fathers to become more engaged with their children, especially soon after birth. Findings from a study that used a national data set across Australia, Denmark, the United Kingdom, and the United States showed that fathers who took leave, especially two weeks or more around childbirth, were more likely to carry out childcare-related activities (e.g., feeding, changing diapers, and reading) when children were under age three and that children with highly involved fathers performed better in cognitive assessments at later years (Huerta et al., 2013). These findings offer more evidence that parental leave for fathers and

mothers is a pathway to child wellbeing. Moving forward, it may be beneficial for programs to allocate more efforts in supporting nonresident or noncustodial fathers by establishing the minimum amount of time they are required to spend with their child and by making broader programs (e.g., health care, parenting education, housing vouchers) more accessible to those fathers (Osborne, 2020). These policies align with the research showing that more-engaged fathers tend to have children with better outcomes, and that fathers with more economic resources and knowledge of child development are more likely to have quality interactions with their child, which in turn would promote children's development.

In summary, programs and policies interested in promoting school readiness and academic achievement among children should target both mothers and fathers and start as early as possible in children's lives. Programs and policies should also invest in parents' education to encourage them to interact with their children in ways that support early cognitive and social development.

References

- Abraham, E. & Feldman, R. (2018). The neurobiology of human allomaternal care; implications for fathering, coparenting, and children's social development. *Physiology & Behavior*, 193, 25–34. <https://doi.org/10.1016/j.physbeh.2017.12.034>
- Adamsons, K. & Johnson, S. K. (2013). An updated and expanded meta-analysis of nonresident fathering and child well-being. *Journal of Family Psychology*, 27(4), 589–599. <https://doi.org/10.1037/a0033786>
- Alamillo, J., Friend, D., & Wood, R. G. (2020). Improving Healthy Marriage and Relationship Education (HMRE) programs for unmarried couples with children. OPRE Report 2020-88. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children

- and Families, U.S. Department of Health and Human Services.
- Aldoney, D. & Cabrera, N. J. (2016). Raising American citizens: Socialization goals of low-income immigrant Latino mothers and fathers of young children. *Journal of Child and Family Studies*, 25, 3607–3618. <https://doi.org/10.1007/s10826-016-0510-x>
- Amato, P. R. & Gilbreth, J. G. (1999). Nonresident fathers and children's well-being: A meta-analysis. *Journal of Marriage and the Family*, 61, 557–573. <https://doi.org/10.2307/353560>
- Apter-Levi, Y., Zagoory-Sharon, O., & Feldman, R. (2014). Oxytocin and vasopressin support distinct configurations of social synchrony. *Brain Research*, 1580, 124–132. <https://doi.org/10.1016/j.brainres.2013.10.052>
- Astone, N. M., Karas, A., & Stolte, A. (2016). *Fathers' time with children: Income and residential differences*. Urban Institute. www.urban.org/sites/default/files/publication/86341/fathers_time_with_children_0.pdf
- Baker, C. E. (2013). Fathers' and mothers' home literacy involvement and children's cognitive and social emotional development: Implications for family literacy programs. *Applied Developmental Science*, 17, 184–197. <https://doi.org/10.1080/10888691.2013.836034>
- Baker, C. E. (2014). African American fathers' contributions to children's early academic achievement: Evidence from two-parent families from the Early Childhood Longitudinal Study–Birth Cohort. *Early Education & Development*, 25, 19–35. <https://doi.org/10.1080/10409289.2013.764225>
- Baumrind, D. (1967). Child care practices anteceding three patterns of preschool behavior. *Genetic Psychology Monographs*, 75, 43–88.
- Belsky, J. (1984). The determinants of parenting: A process model. *Child Development*, 56, 83–96. <https://doi.org/10.2307/1129836>
- Bernier, A., Carlson, S. M., & Whipple, N. (2010). From external regulation to self-regulation: Early parenting precursors of young children's executive functioning. *Child Development*, 81, 326–339. <https://doi.org/10.1111/j.1467-8624.2009.01397.x>
- Bianchi, S. M., Sayer, L. C., Milkie, M. A., & Robinson, J. P. (2012). Housework: Who did, does or will do it, and how much does it matter? *Social Forces*, 91, 55–63. <https://doi.org/10.1093/sf/sos120>
- Bornstein, M. H. (2006). Parenting science and practice. In K. A. Renninger, I. E. Sigel, W. Damon, & R. M. Lerner (Eds.), *Handbook of child psychology: Child psychology in practice* (p. 893–949). John Wiley & Sons Inc.
- Bronfenbrenner, U. & Morris, P. A. (2006). The bioecological model of human development. In R. M. Lerner & W. Damon (Eds.), *Handbook of child psychology: Theoretical models of human development* (pp. 793–828). John Wiley & Sons Inc.
- Bronte-Tinkew, J., Moore, K. A., & Carrano, J. (2006). The father-child relationship, parenting styles, and adolescent risk behaviors in intact families. *Journal of Family Issues*, 27, 850–881. <https://doi.org/10.1177/0192513X05285296>
- Bruner, J. S. & Bornstein, M. H. (1989). On interaction. In M. H. Bornstein & J. S. Bruner (Eds.), *Interaction in human development* (pp. 1–7). Lawrence Erlbaum Associates, Inc.
- Bureau of Labor Statistics. (2020). *Average hours per day parents spent caring for and helping household children as their main activity –2019* [Table]. U.S. Department of Labor. www.bls.gov/charts/american-time-use/activity-by-parent.htm
- Bureau of Labor Statistics. (2020). *Employment characteristics of families –2019* [Data set]. U.S. Department of Labor. www.bls.gov/news.release/pdf/famee.pdf
- Cabrera, N. J. (2012). An ecological view of the socialization process of Latino children. In S. L. Odom, E. P. Pungello, & N. Gardner-Neblett (Eds.), *Infants, toddlers, and families in poverty: Research implications for early child care* (pp. 257–280). The Guilford Press.
- Cabrera, N., Brooks-Gunn, J., Moore, K., West, J., Boller, K., & Tamis-LeMonda, C. (2002). Bridging research and policy: Including fathers of young children in national studies. In C. Tamis-LeMonda, & N. Cabrera (Eds.), *Handbook of father involvement:*

- Multidisciplinary perspectives* (pp. 489–523). Lawrence Erlbaum Associates.
- Cabrera, N., Cook, G., McFadden, K., & Bradley, R. (2011). Father residence and father-child relationship quality: Peer relationships and externalizing behavioral problems. *Family Science, 2*, 109–119. <https://doi.org/10.1080/19424620.2011.639143>
- Cabrera, N. J., Fagan, J., Wight, V., & Schadler, C. (2011). Influence of mother, father, and child risk on parenting and children's cognitive and social behaviors. *Child Development, 82*, 1985–2005. <https://doi.org/10.1111/j.1467-8624.2011.01667.x>
- Cabrera, N. J., Fitzgerald, H. E., Bradley, R. H., & Roggman, L. (2007). Modeling the dynamics of paternal influences on children over the life course. *Applied Development Science, 11*, 185–189. <https://doi.org/10.1080/10888690701762027>
- Cabrera, N. J., Fitzgerald, H. E., Bradley, R. H., & Roggman, L. (2014). The ecology of father-child relationships: An expanded model. *Journal of Family Theory & Review, 6*, 336–354. <https://doi.org/10.1111/jftr.12054>
- Cabrera, N. J., Hofferth, S. L., & Chae, S. (2011). Patterns and predictors of father-infant engagement across race/ethnic groups. *Early Childhood Research Quarterly, 26*, 365–375. <https://doi.org/10.1016/j.ecresq.2011.01.001>
- Cabrera, N. J., Jeong Moon, U., Fagan, J., West, J., & Aldoney, D. (2020). Cognitive stimulation at home and in child care and children's preacademic skills in two-parent families. *Child Development, 91*, 1709–1717. <https://doi.org/10.1111/cdev.13380>
- Cabrera, N. J., Karberg, E., Malin, J. L., & Aldoney, D. (2017). The magic of play: Low-income mothers' and fathers' playfulness and children's emotion regulation and vocabulary skills. *Infant Mental Health Journal, 38*, 757–771. <https://doi.org/10.1002/imhj.21682>
- Cabrera, N., Ryan, R., Shannon, J. et al. (2004). Low-income biological fathers' involvement in their toddlers' lives: The Early Head Start National Research and Evaluation Study. *Fathering: A Journal of Theory, Research, and Practice about Men as Fathers, 2*, 5–30.
- Cabrera, N. J., Ryan, R. M., Mitchell, S. J., Shannon, J. D., & Tamis-LeMonda, C. S. (2008). Low-income, nonresident father involvement with their toddlers: Variation by fathers' race and ethnicity. *Journal of Family Psychology, 22*, 643–647. <https://doi.org/10.1037/0893-3200.22.3.643>
- Cabrera, N. J., Shannon, J. D., & Tamis-LeMonda, C. (2007). Fathers' influence on their children's cognitive and emotional development: From toddlers to pre-K. *Applied Development Science, 11*, 208–213. <https://doi.org/10.1080/10888690701762100>
- Cabrera, N., Tamis-LeMonda, C. S., Bradley, R. H., Hofferth, S., & Lamb, M. E. (2000). Fatherhood in the twenty-first century. *Child Development, 71*, 127–136. <https://doi.org/10.1111/1467-8624.00126>
- Carlson, M. (2006). Family Structure, Father Involvement, and Adolescent Behavioral Outcomes. *Journal of Marriage and Family, 68*, 137–154. <https://doi.org/10.1111/j.1741-3737.2006.00239.x>
- Carlson, S. M., Mandell, D. J., & Williams, L. (2004). Executive function and theory of mind: Stability and prediction from ages 2 to 3. *Developmental Psychology, 40*, 1105–1122. <https://doi.org/10.1037/0012-1649.40.6.1105>
- Carlson, S. M., Zelazo, P. D., & Faja, S. (2013). Executive function. In P. D. Zelazo (Ed.), *Oxford handbook of developmental psychology, Vol. 1: Body and mind* (pp. 706–743). Oxford University Press.
- Clark, C. A., Pritchard, V. E., & Woodward, L. J. (2010). Preschool executive functioning abilities predict early mathematics achievement. *Developmental Psychology, 46*, 176–1191. <https://doi.org/10.1037/a0019672>
- Coates, E. E., & Phares, V. (2019). Pathways linking nonresident father involvement and child outcomes. *Journal of Child and Family Studies, 28*, 1681–1694. <https://doi.org/10.1007/s10826-019-01389-6>
- Coleman, P. K. (2003). Perceptions of parent-child attachment, social self-efficacy, and peer relationships in middle childhood. *Infant and Child Development, 12*, 351–368. <https://doi.org/10.1002/icd.316>

- Coley, R. L. (2003). Daughter–father relationships and adolescent psychosocial functioning in low-income African American families. *Journal of Marriage and Family, 65*, 867–875. <https://doi.org/10.1111/j.1741-3737.2003.00867.x>
- Cox, M. J., & Paley, B. (1997). Families as systems. *Annual Review of Psychology, 48*, 243–267. <https://doi.org/10.1146/annurev.psych.48.1.243>
- Current Population Survey, 2020 Annual Social and Economic Supplement. (2020). *America's families and living arrangement—2020* [Table series]. U.S. Census Bureau. www.census.gov/data/tables/2020/demo/families/cps-2020.html
- Diener, M. L., Isabella, R. A., Behunin, M. G., & Wong, M. S. (2008). Attachment to mothers and fathers during middle childhood: Associations with child gender, grade, and competence. *Social Development, 17*, 84–101. <https://doi.org/10.1111/j.1467-9507.2007.00416.x>
- Duursma, E. (2014). The effects of fathers' and mothers' reading to their children on language outcomes of children participating in Early Head Start in the United States. *Fathering: A Journal of Theory and Research about Men as Parents, 12*, 283–302. <https://doi.org/10.3149/ft.1203.283>
- Duursma, E. (2016). Who does the reading, who the talking? Low-income fathers and mothers in the US interacting with their young children around a picture book. *First Language, 36*, 465–484. <https://doi.org/10.1177/01427237166648849>
- Easterbrooks, M. A., & Goldberg, W. A. (1984). Toddler development in the family: Impact of father involvement and parenting characteristics. *Child Development, 55*, 740–752. <https://doi.org/10.2307/1130126>
- Eisenberg, N., & Morris, A. S. (2002). Children's emotion-related regulation. In R. V. Kail (Ed.), *Advances in child development and behavior, Vol. 30* (pp. 189–229). Academic Press.
- Eisenberg, N. & Spinrad, T. L. (2004). Emotion-related regulation: Sharpening the definition. *Child Development, 75*(2), 334–339. <https://doi.org/10.1111/j.1467-8624.2004.00674.x>
- Flouri, E. (2008). Fathering and adolescents' psychological adjustment: The role of fathers' involvement, residence and biology status. *Child: Care, Health and Development, 34*, 152–161. <https://doi.org/10.1111/j.1365-2214.2007.00752.x>
- Gentzler, A. L., Contreras-Grau, J. M., Kerns, K. A., & Weimer, B. L. (2005). Parent–child emotional communication and children's coping in middle childhood. *Social Development, 14*, 591–612. <https://doi.org/10.1111/j.1467-9507.2005.00319.x>
- Gerhardt, M., Feng, X., Wu, Q., Hooper, E. G., Ku, S., & Chan, M. H. (2020). A naturalistic study of parental emotion socialization: Unique contributions of fathers. *Journal of Family Psychology, 34*, 204–214. <https://doi.org/10.1037/fam0000602>
- Gettler, L. T., Mcdade, T. W., & Kuzawa, C. W. (2011). Cortisol and testosterone in Filipino young adult men: Evidence for co-regulation of both hormones by fatherhood and relationship status. *American Journal of Human Biology, 23*, 609–620. <https://doi.org/10.1002/ajhb.21187>
- Gordon, I., Pratt, M., Bergunde, K., Zagoory-Sharon, O., & Feldman, R. (2017). Testosterone, oxytocin, and the development of human parental care. *Hormones and behavior, 93*, 184–192. <https://doi.org/10.1016/j.yhbeh.2017.05.016>
- Gordon, I., Zagoory-Sharon, O., Leckman, J. F., & Feldman, R. (2010). Prolactin, oxytocin, and the development of paternal behavior across the first six months of fatherhood. *Hormones and Behavior, 58*, 513–518. <https://doi.org/10.1016/j.yhbeh.2010.04.007>
- Grusec, J. E. (2017). A domains-of-socialization perspective on children's social development. In N. Budwig, E. Turiel, & P. D. Zelazo (Eds.), *New perspectives on human development* (p. 165–181). Cambridge University Press. <https://doi.org/10.1017/CBO9781316282755.011>
- Haskins, A. R. (2015). Paternal incarceration and child-reported behavioral functioning at age 9. *Social Science Research, 52*, 18–33. <https://doi.org/10.1016/j.ssresearch.2015.01.001>
- Huerta, M., Adema, W., Baxter, J., Han, W., Lausten, M., Lee, R., & Waldfogel, J. (2013). Fathers' leave, fathers' involvement and child development: Are they related? Evidence from four OECD countries. *OECD Social, Employment and Migration Working Papers*,

- 140, OECD Publishing, Paris, <https://doi.org/10.1787/5k4dlw9w6czq-en>
- Jeon, S. & Neppl, T. K. (2019). Economic pressure, parent positivity, positive parenting, and child social competence. *Journal of Child and Family Studies*, 28, 1402–1412. <https://doi.org/10.1007/s10826-019-01372-1>
- Karberg, L. & Cabrera, N. (2017). Family change and co-parenting in resident couples and children's behavioral problems. *Journal of Family Studies*, 26, 243–259. <https://doi.org/10.1080/13229400.2017.1367714>
- Keown, L. J. (2012). Predictors of boys' ADHD symptoms from early to middle childhood: The role of father-child and mother-child interactions. *Journal of Abnormal Child Psychology*, 40, 569–581. <https://doi.org/10.1007/s10802-011-9586-3>
- Kochanska, G., & Kim, S. (2013). Early attachment organization with both parents and future behavior problems: From infancy to middle childhood. *Child Development*, 84, 283–296. <https://doi.org/10.1111/j.1467-8624.2012.01852.x>
- LaBounty, J., Wellman, H. M., Olson, S., Lagattuta, K., & Liu, D. (2008). Mothers' and fathers' use of internal state talk with their young children. *Social Development*, 17, 757–775. <https://doi.org/10.1111/j.1467-9507.2007.00450.x>
- Leavell, A. S., Tamis-LeMonda, C. S., Ruble, D. N., Zosuls, K. M., & Cabrera, N. J. (2012). African American, White and Latino fathers' activities with their sons and daughters in early childhood. *Sex Roles*, 66, 53–65. <https://doi.org/10.1007/s11199-011-0080-8>
- Leech, K. A., Salo, V. C., Rowe, M. L., & Cabrera, N. J. (2013). Father input and child vocabulary development: The importance of wh questions and clarification requests. *Seminars in Speech and Language*, 34, 249–259. <https://doi.org/10.1055/s-0033-1353445>
- Lewin, A., Mitchell, S. J., Waters, D., Hodgkinson, S., Southammakosane, C., & Gilmore, J. (2015). The protective effects of father involvement for infants of teen mothers with depressive symptoms. *Maternal and Child Health Journal*, 19, 1016–1023. <https://doi.org/10.1007/s10995-014-1600-2>
- Livingston, G. (2018). Stay-at-home moms and dads account for about one-in-five US parents. *Pew Research Center*. www.pewresearch.org/fact-tank/2018/09/24/stay-at-home-moms-and-dads-account-for-about-one-in-five-u-s-parents/
- Lucassen, N., Kok, R., Bakermans-Kranenburg, M. J. et al. (2015). Executive functions in early childhood: The role of maternal and paternal parenting practices. *British Journal of Developmental Psychology*, 33, 489–505. <https://doi.org/10.1111/bjdp.12112>
- Lunkenheimer, E., Hamby, C. M., Lobo, F. M., Cole, P. M., & Olson, S. L. (2020). The role of dynamic, dyadic parent-child processes in parental socialization of emotion. *Developmental Psychology*, 56, 566–577. <https://doi.org/10.1037/dev0000808>
- Lyytinen, P., Laakso, M. L., & Poikkeus, A. M. (1998). Parental contribution to child's early language and interest in books. *European Journal of Psychology of Education*, 13, 297–308. <https://doi.org/10.1007/BF03172946>
- MacKenzie, M. J., Nicklas, E., Waldfoegel, J., & Brooks-Gunn, J. (2013). Spanking and child development across the first decade of life. *Pediatrics*, 132, e1118–e1125. <https://doi.org/10.1542/peds.2013-1227>
- Majdandžić, M., de Vente, W., Colonesi, C., & Bögels, S. M. (2018). Fathers' challenging parenting behavior predicts less subsequent anxiety symptoms in early childhood. *Behaviour Research and Therapy*, 109, 18–28. <https://doi.org/10.1016/j.brat.2018.07.007>
- Malin, J. L., Cabrera, N. J., Karberg, E., Aldoney, D., & Rowe, M. L. (2014). Low-income, minority fathers' control strategies and their children's regulatory skills. *Infant Mental Health Journal*, 3, 462–472. <https://doi.org/10.1002/imhj.21467>
- Malin, J. L., Cabrera, N. J., & Rowe, M. L. (2014). Low-income minority mothers' and fathers' reading and children's interest: Longitudinal contributions to children's receptive vocabulary skills. *Early Childhood Research Quarterly*, 2, 425–432. <https://doi.org/10.1016/j.ecresq.2014.04.010>
- Malmberg, L. E., Lewis, S., West, A., Murray, E., Sylva, K., & Stein, A. (2016). The influence of

- mothers' and fathers' sensitivity in the first year of life on children's cognitive outcomes at 18 and 36 months. *Child: Care, Health and Development*, 42, 1–7. <https://doi.org/10.1111/cch.12294>
- Manning, W. D. & Brown, S. (2006). Children's economic well-being in married and cohabiting parent families. *Journal of Marriage and Family*, 68, 345–362. <https://doi.org/10.1111/j.1741-3737.2006.00257.x>
- Martin, A., Ryan, R. M., & Brooks-Gunn, J. (2010). When fathers' supportiveness matters most: Maternal and paternal parenting and children's school readiness. *Journal of Family Psychology*, 24, 145–155. <https://doi.org/10.1037/a0018073>
- Masten, A. S., & Cicchetti, D. (2010). Developmental cascades. *Development and Psychopathology*, 22, 491–495. <https://doi.org/10.1017/S0954579410000222>
- McAdoo, H. P. (1991). Family values and outcomes for children. *The Journal of Negro Education*, 60, 361–365. <https://doi.org/10.2307/2295489>
- McAdoo, H. P. & McAdoo, J. L. (1997). The dynamics of African American fathers' family roles. *Michigan Family Review*, 3, 7–15. <http://dx.doi.org/10.3998/mfr.4919087.0003.102>
- McBride, B. A., Curtiss, S. J., Uchima, K. et al. (2017). Father involvement in early intervention: Exploring the gap between service providers' perceptions and practices. *Journal of Early Intervention*, 39(2), 71–87. <https://doi.org/10.1177/1053815116686118>
- Meuwissen, A. S. & Carlson, S. M. (2015). Fathers matter: The role of father parenting in preschoolers' executive function development. *Journal of Experimental Child Psychology*, 140, 1–15. <https://doi.org/10.1016/j.jecp.2015.06.010>
- Mitchell, S. J., See, H. M., Tarkow, A. K., Cabrera, N., McFadden, K. E., & Shannon, J. D. (2007). Conducting studies with fathers: Challenges and opportunities. *Applied Development Science*, 11, 239–244. <https://doi.org/10.1080/10888690701762159>
- Nuttall, A. K., Froyen, L. C., Skibbe, L. E., & Bowles, R. P. (2019). Maternal and paternal depressive symptoms, home learning environment, and children's early literacy. *Child Psychiatry and Human Development*, 50, 681–691. <https://doi.org/10.1007/s10578-019-00872-x>
- Osborne C. (2020). Fathers and public policy. In H. E. Fitzgerald, K. von Klitzing, N. J. Cabrera, J. Scarano de Mendonça, T. Skjøthaug. (Eds.), *Handbook of fathers and child development* (pp. 121–132). Springer. https://doi.org/10.1007/978-3-030-51027-5_8
- Owen, M. T., Caughy, M. O. B., Hurst, J. R., Amos, M., Hasanizadeh, N., & Mata-Otero, A. M. (2013). Unique contributions of fathering to emerging self-regulation in low-income ethnic minority preschoolers. *Early Child Development and Care*, 183, 464–482. <https://doi.org/10.1080/03004430.2012.711594>
- Pancsofar, N., Vernon-Feagans, L., & The Family Life Project Investigators. (2010). Fathers' early contributions to children's language development in families from low-income rural communities. *Early Childhood Research Quarterly*, 25, 450–463. <https://doi.org/10.1016/j.ecresq.2010.02.001>
- Papoušek, H., & Papoušek, M. (2002). Intuitive parenting. In M.H. Bornstein (Ed.), *Handbook of parenting, Volume 2: Biology and ecology of parenting* (pp. 182–203). Lawrence Erlbaum Associates Inc.
- Paquette, D. (2004). Theorizing the father–child relationship: Mechanisms and developmental outcomes. *Human Development*, 47, 193–219. <https://doi.org/10.1159/000078723>
- Patnaik, A. & Avellar, S. (2020). Improving children's well-being through Responsible Fatherhood Programs. OPRE Report 2020-94. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.
- Paulson, J. F., Dauber, S. E., & Leiferman, J. A. (2011). Parental depression, relationship quality, and nonresident father involvement with their infants. *Journal of Family Issues*, 32, 528–549. <https://doi.org/10.1177/0192513X10388733>
- Reynolds, E., Vernon-Feagans, L., Bratsch-Hines, M., Baker, C. E., & The Family Life Project Key

- Investigators. (2019). Mothers' and fathers' language input from 6 to 36 months in rural two-parent-families: Relations to children's kindergarten achievement. *Early Childhood Research Quarterly*, *47*, 385–395. <https://doi.org/10.1016/j.ecresq.2018.09.002>
- Rispoli, K. M., McGoey, K. E., Koziol, N. A., & Schreiber, J. B. (2013). The relation of parenting, child temperament, and attachment security in early childhood to social competence at school entry. *Journal of School Psychology*, *51*, 643–658. <https://doi.org/10.1016/j.jsp.2013.05.007>
- Rowe, M. L., Leech, K. A., & Cabrera, N. J. (2017). Going beyond input quantity: *Wh*-questions matter for toddlers' language and cognitive development. *Cognitive Science*, *41*, 162–179. <https://doi.org/10.1111/cogs.12349>
- Ryan, R. M., Martin, A., & Brooks-Gunn, J. (2006). Is one good parent good enough? Patterns of mother and father parenting and child cognitive outcomes at 24 and 36 months. *Parenting*, *6*, 211–228. <https://doi.org/10.1080/15295192.2006.9681306>
- Salo, V. C., Rowe, M. L., Leech, K. A., & Cabrera, N. J. (2016). Low-income fathers' speech to toddlers during book reading versus toy play. *Journal of Child Language*, *43*, 1385–1399. <https://doi.org/10.1017/S0305000915000550>
- Sameroff, A. (2010). A unified theory of development: A dialectic integration of nature and nurture. *Child Development*, *81*, 6–22. <https://doi.org/10.1111/j.1467-8624.2009.01378.x>
- Schoppe-Sullivan, S. J. & Fagan, J. (2020). The evolution of fathering research in the 21st century: Persistent challenges, new directions. *Journal of Marriage and Family*, *82*, 175–197. <https://doi.org/10.1111/jomf.12645>
- Steinberg, L. (1990). Autonomy, conflict, and harmony in the family relationship. In S. Feldman & G. Elliot (Eds.), *At the threshold: The developing adolescent* (pp. 255–276). Harvard University Press.
- Steinberg, L., Elmen, J. D., & Mounts, N. S. (1989). Authoritative parenting, psychosocial maturity, and academic success among adolescents. *Child Development*, *60*, 1424–1436.
- Suizzo, M.-A., Rackley, K. R., Robbins, P. A., Jackson, K. M., Rarick, J. R. D., & McClain, S. (2017). The unique effects of fathers' warmth on adolescents' positive beliefs and behaviors: Pathways to resilience in low-income families. *Sex Roles*, *77*, 46–58. <https://doi.org/10.1007/s11199-016-0696-9>
- Tamis-LeMonda, C. S., Shannon, J. D., Cabrera, N. J., & Lamb, M. E. (2004). Fathers and mothers at play with their 2- and 3-year-olds: Contributions to language and cognitive development. *Child Development*, *75*, 1806–1820. <https://doi.org/10.1111/j.1467-8624.2004.00818.x>
- Thompson, R. A. (1994). Emotion regulation: A theme in search of definition. *Monographs of the Society for Research in Child Development*, *59*, 25–52. <https://doi.org/10.2307/1166137>
- Towe-Goodman, N. R., Willoughby, M., Blair, C., Gustafsson, H. C., Mills-Koonce, W. R., & Cox, M. J. (2014). Fathers' sensitive parenting and the development of early executive functioning. *Journal of Family Psychology*, *28*, 867–876. <https://doi.org/10.1037/a0038128>
- Varga, C. M., Gee, C. B., Rivera, L., & Reyes, C. X. (2017). Coparenting mediates the association between relationship quality and father involvement. *Youth & Society*, *49*, 588–609. <https://doi.org/10.1177/0044118X14548529>
- Varghese, C. & Wachen, J. (2016). The determinants of father involvement and connections to children's literacy and language outcomes: Review of the literature. *Marriage & Family Review*, *52*, 331–359. <https://doi.org/10.1080/01494929.2015.1099587>
- Verhoeven M., Bögels S. M., & van der Bruggen C. C. (2012). Unique roles of mothering and fathering in child anxiety; moderation by child's age and gender. *Journal of Child and Family Studies*, *21*, 331–343. <https://doi.org/10.1007/s10826-011-9483-y>
- Vygotsky, L. S. (1978). *Mind in society*. Harvard University Press.
- Wachs, T. D. & Chan, A. (1986). Specificity of environmental action, as seen in environmental correlates of infants' communication performance. *Child Development*, *57*, 1464–1474. <https://doi.org/10.2307/1130424>

- White, R. & Roosa, M. (2012). Neighborhood Contexts, Fathers, and Mexican American Young Adolescents' Internalizing Symptoms. *Journal of Marriage and Family*, 74, 152–166. <https://doi.org/10.1111/j.1741-3737.2011.00878.x>
- Wilson, S. & Durbin, C. E. (2010). Effects of paternal depression on fathers' parenting behaviors: A meta-analytic review. *Clinical Psychology Review*, 30, 167–180. <https://doi.org/10.1016/j.cpr.2009.10.007>
- Wissink, I. B., Dekovic, M., & Meijer, A. M. (2006). Parenting behavior, quality of the parent-adolescent relationship, and adolescent functioning in four ethnic groups. *The Journal of Early Adolescence*, 26, 133–159. <https://doi.org/10.1177/0272431605285718>
- Xie, Q. W., Chan, C. H., Ji, Q., & Chan, C. L. (2018). Psychosocial effects of parent-child book reading interventions: a meta-analysis. *Pediatrics*, 141I, e20172675. <https://doi.org/10.1542/peds.2017-2675>
- Yu, T., Volling, B. L., & Niu, W. (2015). Emotion socialization and children's behavioral problems in China and the United States. *Journal of Comparative Family Studies*, 46, 419–434. <https://doi.org/10.3138/jcfs.46.3.419>
- Zeman, J., Cassano, M., Perry-Parrish, C., & Stegall, S. (2006). Emotion regulation in children and adolescents. *Journal of Developmental & Behavioral Pediatrics*, 27, 155–168. <https://doi.org/10.1097/00004703-200604000-00014>
- Zimmerman, M. A., Salem, D. A., & Maton, K. I. (1995). Family structure and psychosocial correlates among urban African-American adolescent males. *Child Development*, 66, 1598–1613. <https://doi.org/10.2307/1131899>
- Zvara, B. J., Sheppard, K. W., & Cox, M. (2018). Bidirectional effects between parenting sensitivity and child behavior: A cross-lagged analysis across middle childhood and adolescence. *Journal of Family Psychology*, 32, 484–495. <https://doi.org/10.1037/fam0000372>