

Do Fathers Matter for Early Child Development?: New Evidence from Nairobi, Kenya

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The growth of research interest and data on the role of fathers in the African context provides an ideal context to explore the extent to which fathers' support matters for early child development. In this analysis, we develop innovative measures of father involvement and draw on 5 waves of data from an ongoing longitudinal study in two low income communities in Nairobi, Kenya to 1) assess the type and duration of father involvement and 2) examine the extent to which such involvement benefits early child development net of maternal and household factors. Because we know that support from fathers depends on the status of the union with the mother, we also 3) examine whether union status moderates the effect of father involvement on child development. Preliminary results suggest that, contrary to common portrayal, father involvement is relatively high at all waves and that this involvement supports some dimensions of early child development. The importance of this work is underscored by calls to involve fathers more robustly in child rearing.

The research on the role of fathers in the African context has grown significantly in the recent decades (Owino and Yigezu 2023; Nsamenang 2010; Madhavan et al. 2014; Richter and Morrell 2006). While we have learned a lot about the barriers to father involvement, our understanding of the relationship between father involvement and child outcomes is still limited. What little exists suggests that it can be beneficial. Clark et al. (2018) found that social capital from fathers may be more beneficial than that from grandmothers in the context of poor urban contexts. Other work has shown that the benefits of father support to children are indirect through improvement in mothers' mental health (Drysdale et al. 2021; Garcia et al. 2022). Despite enduring gender norms that emphasize the primacy of mothers in the care of children (Erzse et al. 2021; Trivedi and Bose 2018), fathers can and do play an important role. In this analysis, we draw on five waves of data from an ongoing longitudinal study in two low income communities in Nairobi, Kenya to 1) assess the type and duration of father involvement and 2) examine the extent to which such involvement benefits early child development net of maternal and household factors. Because we know that support from fathers depends on the status of the union with the mother, we analyze 3) whether union formalization moderates the effect of father involvement on child development.

While there has been significant progress in improving child survival and health, efforts to support early child development in sub-Saharan Africa lag far behind. Given the well-established connection between ECD and later childhood/life outcomes, we need a better understanding of the correlates of early child development, i.e. gross motor, fine motor and cognitive skills. Given the connection between parental involvement and positive ECD outcomes (Jeong et al. 2021) and the increasing recognition of fathers' contributions to their children's growth and development (Cabrera 2020), it is imperative that we improve our understanding of the ways in which fathers take care of their children and the extent to which this benefits child development. Our analysis is, therefore, timely and can provide needed insights to enhance programming already under way to support father involvement in the provision of child health services (Jeong et al. 2023; 2021; Lewaks et al. 2021) in low income communities not only in Kenya but in other urban African contexts.

Conceptual Background

We draw on the seminal work of Lamb (1985) and Pleck (2010) as conceptual anchors for studying father involvement. Specifically, we apply Lamb's three key dimensions - engagement, accessibility and responsibility - and Pleck's material indirect care to develop a multidimensional construct of father involvement. Engagement refers to direct interaction with the child while accessibility is about presence/proximity to the child and responsibility is about ensuring that the child is cared for. While

financial provision is clearly embedded in the responsibility component, it is more clearly articulated in Pleck material indirect care. Additionally, we recognize the critical role of paternal kin in supporting fathering in contexts where cultural norms and circumstances necessitate (Nathane and Khunou 2021; Madhavan and Roy 2012). In this sense, we conceptualize father involvement as something beyond the responsibility of an individual. We also know that father involvement does not occur in a vacuum, but rather, is dependent on the status of the union with the child's mother (Haux and Platt 2021; Raley and Sweeney 2020). This is particularly salient in low income urban African contexts where employment precarity and chronic poverty are constant threats to union stability.

We draw on this work to examine the nexus of father involvement, union context and child development in a context marked by high unemployment, gender roles in transition, an uncertain and protracted marriage process and high levels of economic precarity for mothers and children. Specifically we want to know whether father involvement benefits children's development and the extent to which it depends on union status with the mother.

Data and Methods

The research site for this study is two informal slum settlements in Kenya's capital city, Nairobi – Korogocho and Viwandani. These two areas have a combined population of about 90,000 (Wamukoya et al 2020) and are characterized by inadequate sanitation, limited health care facilities, low-quality housing, high levels of crime, unemployment and poverty (Emina et al 2011). Infant and child health indices are very poor (Kimani-Murage et al 2014). While the two settlements share many commonalities, Viwandani has higher formal sector employment opportunities and a more mobile population than Korogocho. Both settlements are multi-ethnic and include Kikuyu (30%), Kamba (24%), Luhya (18%), and Luo (12%) ethnic groups, among others, all patrilineal/local.

The data come from the JAMO (JAMAA na AFYA ya MTOTO) project, which uses mixed methods to examine the relationships among kinship support, union formalization and infant/child development outcomes longitudinally over 6 waves of survey data collection and 3 rounds of qualitative interviews. Wave 1 (conducted in March 2022) started with 1203 mothers aged 18-29 years old with a co-resident child aged 0-24 months. The survey includes a novel union formalization module comprised of questions related to seven specific steps in the marriage process, relationship quality, socio-demographic characteristics of the mother, maternal mental health, economic status of the household and mother's fertility history. Data on fathers and current partners include socio-demographic attributes as well as the type and extent of support provided to the mother and child. In addition, we collect data on close kin of the child including grandparents, aunt and uncles from maternal and paternal sides. These data include

socio-demographic attributes and type and extent of support provided to mother and child. The kin sample in Wave 1 is over 15,000. We collected a range of child health and development data including anthropometric, illness, vaccination and dietary diversity. The ECD measures are derived from the Protocol for Child Monitoring instrument that assesses multiple developmental dimensions including gross motor, fine motor, cognitive, communication, language, social, emotional and self help/adaptation through a combination of direct observation exercises with the child and interviews with the caregiver (Kitsao-Wekulo et al. 2021).

We focus on three development outcomes: social, emotional and cognitive skills. The raw score for each domain was converted into age standardized z-scores based on the sample mean (not a universal standard). Our dependent variable uses a cut off of $< 1SD$ to signify “delay.” Father involvement includes multiple innovative measures in line with the conceptual approach outlined above. *Engagement* is measured through responses to questions on direct interaction with the child, *accessibility* is measured through place of residence (co-resident, same community, Nairobi or outside Nairobi); *responsibility/material indirect support* is captured through financial support received from the biological father. Lastly we include the number of paternal kin providing support. Union status is captured directly through a dichotomous variable: in union with biological father or not.

The analytical sample for this analysis is comprised of all children who were present in all 5 waves of the study (N=5292). After removing children for whom father data is missing in any wave, the final analytical sample is 4627 (??). First, we present descriptives of the sample, distribution of ECD outcomes and the dimensions of father involvement across all five waves. Second we conduct a series of logistic regression models examining the relationship between the different measures of father involvement and the odds of being delayed for each of the three skills. The third step includes interaction terms to determine the extent to which effects are dependent on union status. Control variables include child sex, birthweight, mother attributes (age, education, employment, number of children), father attributes (age, employment) and household attributes (size, food insecurity), the number of potential kin and wave. All are time varying with the exception of age, sex and birth weight. We also use cross lagged models to account for reverse causality and growth models to analyze the relationship between change in father involvement and change in ECD.

Preliminary Findings

Table 1 presents selected descriptives of the starting sample of women and the focal children in Wave 1.

Insert Table 1 here.

The median age is about 24 and the vast majority have at least primary level education. Two thirds were unemployed likely due to having young children. In terms of union status, more than 75% of the mothers are in union with the biological father. The focal child age is clustered around 7-18 months with a mean birth weight of 3.6 kg. The sex distribution of the children is nearly even. Figure 1 shows the distribution of ECD outcomes across waves.

Insert Figure 1 here.

While most children meet the benchmarks for emotional, social and cognitive development at all waves, there is some volatility in the proportions meeting cognitive development milestones. More importantly, about 20-30% of children do not meet the benchmarks. Figure 2 shows the distributions of each dimension of father involvement at each wave.

Insert Figure 2. here

Contrary to narratives that emphasize deficits in father involvement, the reports from mothers on each of these dimensions suggest fairly high levels of involvement although there is a downward trend across waves. Almost 80% of mothers report receiving financial support from fathers at Wave 1 which decreases to about 65% at Wave 5. Co-residence goes down over waves as would be expected in light of union dissolution. Interacting with child is low at Wave 1 likely due to the fact that children were very young, but then is higher across subsequent waves. Paternal kin support is at its highest at Wave 1 but is much lower at subsequent waves. To examine the relationships between these dimensions and early child development outcomes, we present in Table 2 preliminary results from a logistic regression model expressed as odds ratios predicting delayed ECD outcomes using data only from Wave 1.

Insert Table 2 here.

These are results from four separate models each using a different dimension of father involvement. All controls are included. Bearing in mind these are associations, there are some notable findings. Interaction with father benefits childrens for social, cognitive and language development. Support from kin, interestingly, offers benefits for language development (.596*). Financial support from fathers more than

doubles the odds of experiencing delays in social development. This counterintuitive finding may be a reflection of reverse causality and needs further examination.

Next Steps

The initial results are encouraging but we will continue refining the regression models and consider interaction terms to include. We will then undertake cross lagged and growth models to attain a more robust understanding of the ways in which father involvement supports early child development over time.

Table 1. Selected Characteristics of Mothers and Children, JAMO Wave 1 (N=1203)

Mothers		Children	
Mean age	24.2	Age	
Education level		0-6 months	10%
Primary school	32%	7-12 months	32%
Secondary school	58%	13-18 months	28%
Some university or college	5%	19-24 months	27%
Completed university	5%	24+ months	4%
Employment status		Birthweight (mean)	3.6 kg
Formal	14%		
Informal	20%	Female	48.3
Unemployed	66%	Male	51.7
Union Status			
In union w/biodad	76.9%		
Not in union w/biodad	23.1%		

Figure 1. Proportions of children meeting benchmarks for emotional, social and cognitive development, JAMO Waves 1-5

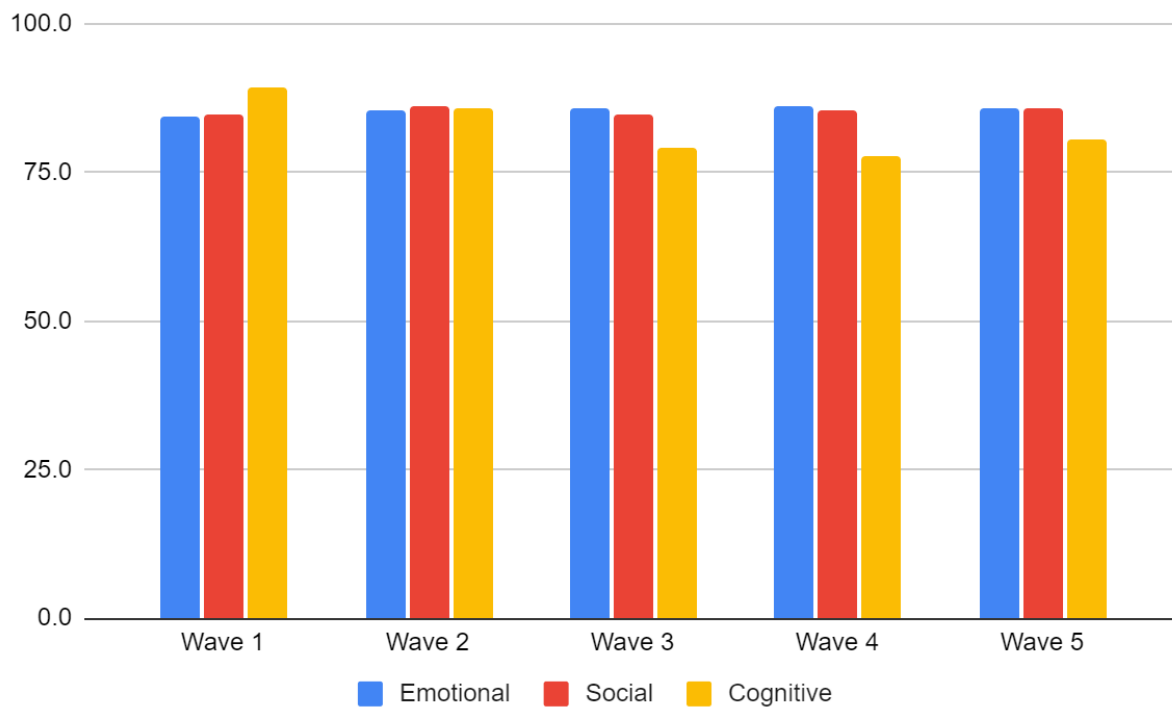


Figure 2. Dimensions of father involvement, JAMO Wave 1-5

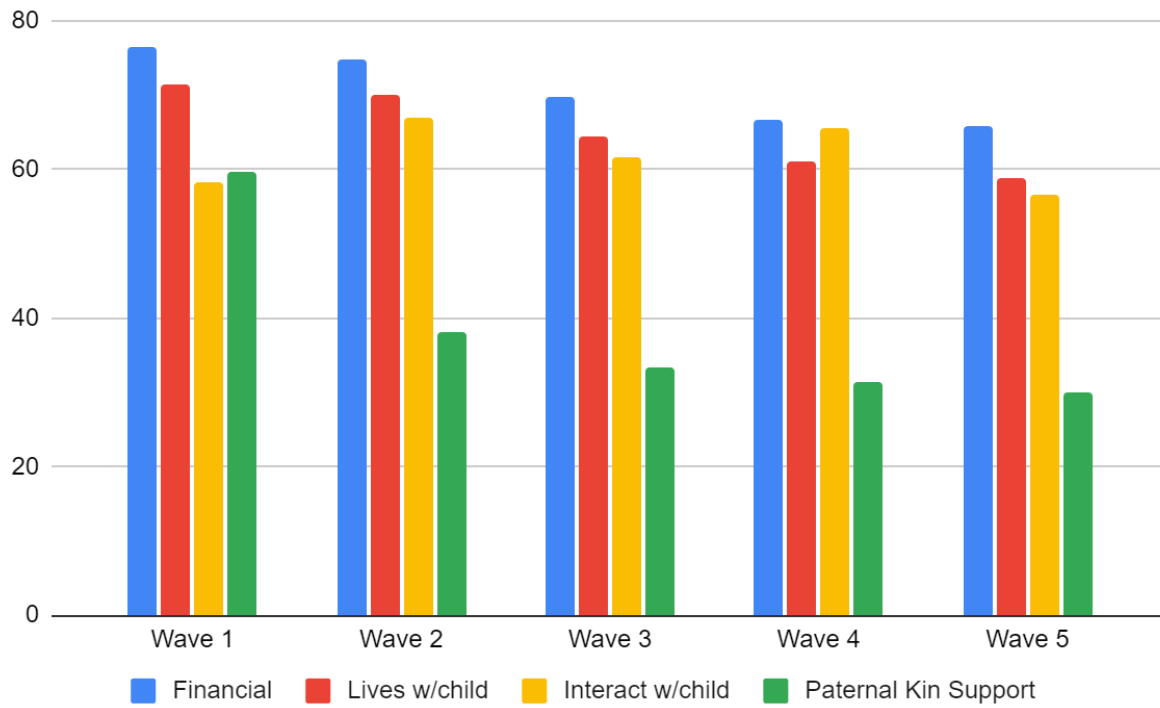


Table 2. Odds of *delayed* ECD outcome as a function of father involvement, JAMO Wave 1

	Emotional	Social	Cognitive	Language
Financial support from father	NS+	2.286*	NS	NS
Living with father	NS	NS	NS	NS+
Interaction with father	NS	.449***	.622*	.410***
Support from paternal kin	NS	NS	NS	.596*
N	1051	1051	1051	1051

Controls: child sex, birthweight, mother attributes (age, education, employment, number of children), father attributes (age, employment), union status and household attributes (size, food insecurity)

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