

Parental time use in northern Ghana

Briefing

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Key messages

Mothers and fathers spent the same amount of time on child learning and play – but mothers spent more time on unpaid care.

Educated parents did not spend more time on child play and learning than non-educated parents – but mothers who were not formally educated spent more time on unpaid care than educated mothers.

The time mothers spent on child play, learning and unpaid care varied by mother-father educational pairing. The time fathers spent on child play and learning did not vary by educational pairing – but did when it came to unpaid care.

About this briefing

This briefing summarises key findings from a recently published Thrive study, which used primary data from 663 mothers and fathers in northern Ghana to understand how parents of pre-school children allocate their time. In particular the study focused on home learning and caring for others, and how this varies by parental education.

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Introduction

Parents' engagement with young children is central to children's development and later social and economic outcomes, serving as a key channel for the intergenerational transmission of human capital (Bornstein and Bradley 2014; Conger and Donnellan 2007; Cunha et al. 2010; Del Boca et al. 2014; Hsin and Felfe 2014). Many early childhood development (ECD) programmes aim to increase the quantity and quality of time that primary caregivers – typically mothers – spend with young children. Because better-educated parents invest more time in children's learning (Guryan et al. 2008; Kalil et al. 2012), programmes often aim to reduce socioeconomic disparities by targeting families with lower levels of education to strengthen their caregiving abilities.

However, this approach assumes that parents can readily increase time spent with young children, overlooking the substantial constraints many families already face. Evidence from low- and middle-income countries (LMICs) shows that calls for greater parental engagement in children's development expand unpaid care responsibilities fall disproportionately on mothers (Chopra 2015). Understanding how parents allocate time across work, childcare and domestic responsibilities is also a fundamental policy concern as unpaid care work is a recognised driver of gender inequality and a global indicator for tracking progress toward women's empowerment (SDG 5.4.1). High-quality time-use data is therefore essential for documenting these care burdens and for informing ECD programme design. Yet a review of 263 ECD policies found that only 40 acknowledged that link (Chopra 2015). Interventions also overwhelmingly focus on less-educated mothers, on the assumption that they have greater scope to change their behaviour (Jeong et al. 2021), which, in practice, can add to the demands on women who already shoulder the bulk of home learning activities and unpaid care while leaving fathers' roles largely unexamined.

Without a clear understanding of how households with young children allocate time – who performs which care tasks and how those patterns vary by education – ECD initiatives risk unintentionally reinforcing existing inequities. Programme design would benefit from mapping how parents distribute their time, taking into account both parents' education separately and, importantly, jointly.

About the study

The study on which this working paper is based used weekday time-use diaries from 663 mothers and fathers with pre-school children in northern Ghana – where poverty is high and access to formal schooling is limited (Ghana Ministry of Education and UNICEF 2020; Ghana Statistical Service 2017) to:

- describe and visualise how both mothers and fathers allocate time across home learning activities and caring for other household members

- examine how time-use patterns vary by formal education (which includes primary schooling) levels.

Parental time use was measured using stylised questions, providing respondents with 24 counters, each representing an hour on a typical weekday. Respondents allocated these counters across 8 pre-defined categories that broadly capture key domains of daily activities, ensuring that all 24 hours were accounted for. This approach is common in large-scale studies in LMICs and can provide an exhaustive picture of time allocation (Espinoza-Revollo and Porter 2018). The full working paper examines parents' allocation across all time-use categories and is available here: <https://thrivechildevidence.org/resource-centre/mother-and-father-time-use-of-preschoolaged-children-in-rural-ghana/>

Strengths and limitations

The study makes several contributions to research on children and families. By drawing on primary data from a large sample of economically disadvantaged mothers and fathers in rural Ghana (and collecting reports from each parent separately), it offers a rare, detailed view of intrahousehold time allocation during the pre-school years — a period of high developmental importance and intensive caregiving demands. At the same time, several limitations should be considered:

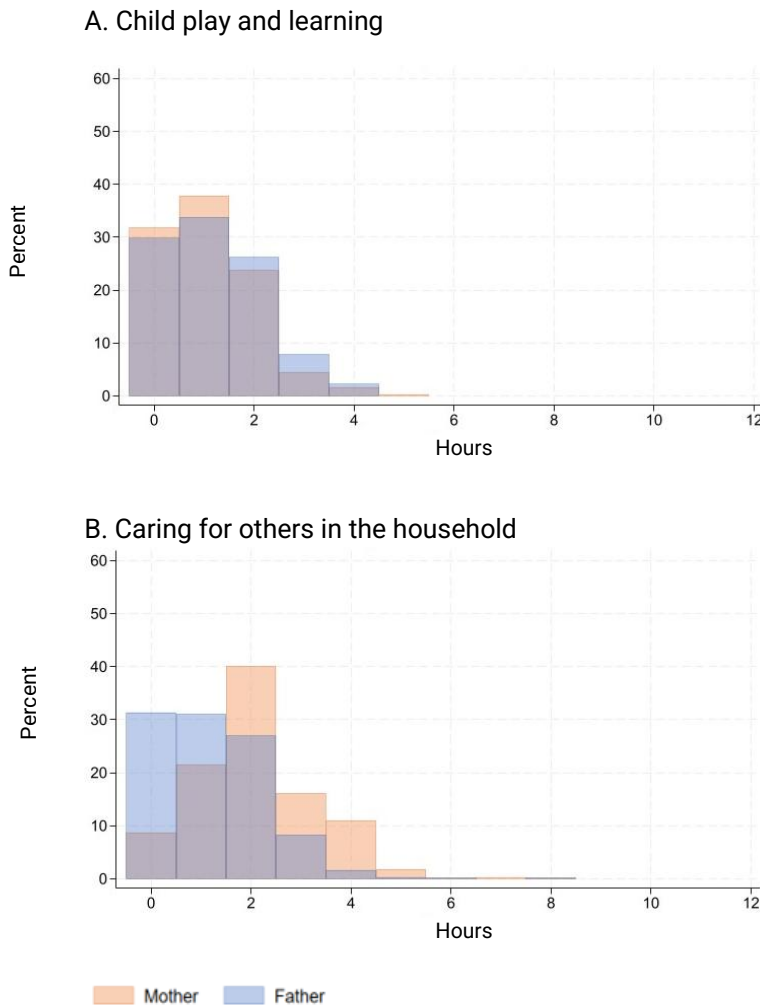
- the data is cross-sectional and non-experimental, meaning the analyses are descriptive and not intended to establish causal relations
 - time use was self-reported in full-hour increments and did not capture multitasking, likely leading to underestimates of unpaid care
 - the sample is representative of families with children in government kindergartens in northern Ghana and the findings may not be generalisable — however, the socioeconomic and gendered dynamics of northern Ghana resemble those of many rural areas in sub-Saharan Africa, suggesting that the patterns documented here may offer insights relevant to similar settings.
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Key findings

Mothers and fathers spent the same amount of time on child learning and play – but mothers spent more time on unpaid care

Mothers and fathers reported similar amounts of time on child play and learning, with fathers averaging 1.19 hours and mothers 1.07 hours per day – a small difference of about 7 minutes. In contrast, the responsibility of care for other household members fell disproportionately on mothers, who devoted almost twice as much time per day caring for adults, older people and children than fathers (2.08 and 1.20 hours respectively) (Figure 1).

Figure 1: Histogram of mothers' and fathers' time use in hours



Note: N=663 couples

Educated parents did not spend more time on child play and learning than non-educated parents — but mothers who were not formally educated spent more time on unpaid care than educated mothers

When comparing time use between parents with some formal education and those without, no differences were found when it came to fathers: all fathers in our sample, regardless of education, spent just over 1 hour per day on child play and learning and 1 hour on caring for other household members. Mothers showed a similar pattern for child play and learning, spending approximately 1 hour per day across education levels.

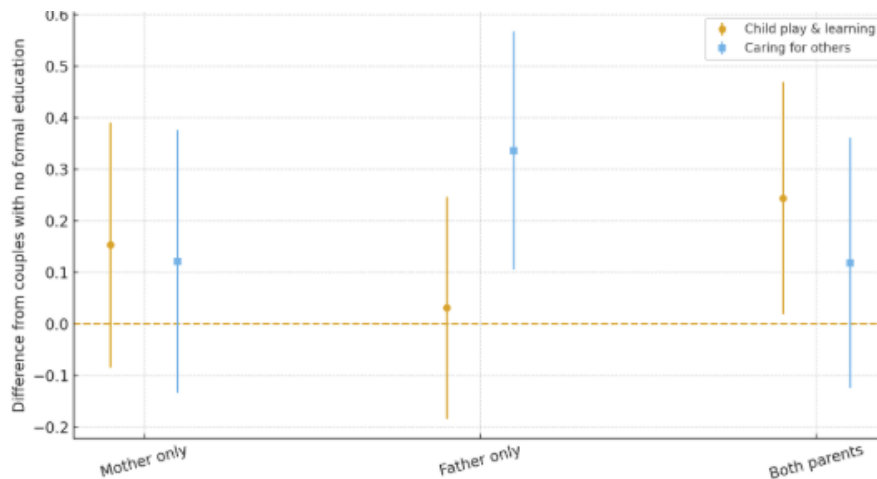
However, mothers without some formal education spent an average of 18 minutes more per day caring for other household members than mothers with some formal education (2.2 hours and 1.9 hours respectively).

The time mothers spent on child play, learning and unpaid care varied by mother-father educational pairing

Using multiple linear regression models that adjust for key parental and household characteristics, we examined how mothers' time use varied by the couple's educational pairing, using households in which neither parent has formal education as the reference group. The results showed that mothers spent more time on child play and learning only when both parents had some formal education, with a statistically significant increase relative to the reference group. In contrast, the time mothers spent on play and learning with the child did not differ when only one parent — either the mother or the father — had some formal education.

Patterns for caring for other household members were more complex: mothers' total caregiving time increased when only the father had some formal education. When both partners were educated, mothers did not spend more time caring for other household members than the reference group but did spend more time on home learning activities. These findings suggest that mothers' time allocation is sensitive to their own schooling and to the couple's joint educational profile, underscoring the importance of considering educational pairing.

Figure 2: Mothers' time use across activities by couples' educational pairing



Notes: The figure shows regression coefficients for educational pairing (x-axis). Time-use categories were regressed on educational pairing dummies (with the omitted category being both parents with no formal education) and controls (parent age, number of children, household asset index and age of youngest child).

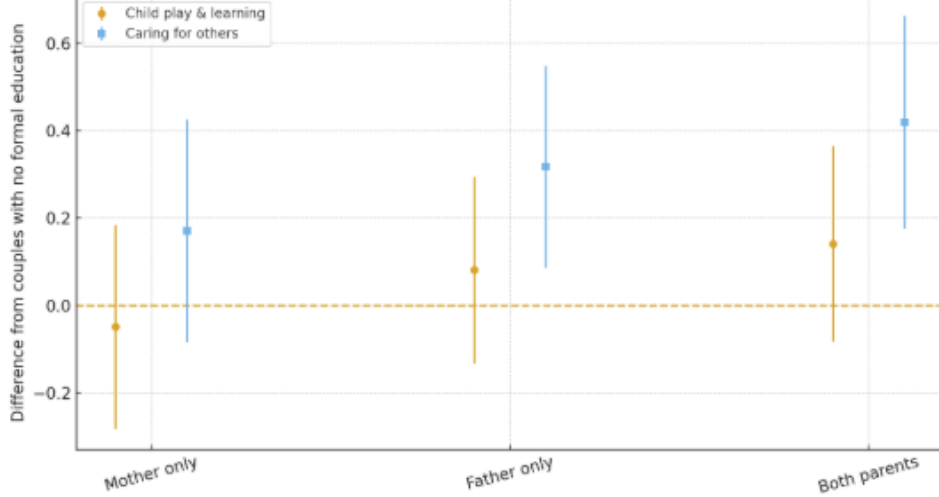
The time fathers spent on child play and learning did not vary by educational pairing — but did when it came to unpaid care

Focusing on fathers' time (Figure 3), multiple linear regression models, adjusting for parental and household characteristics, showed no differences in the time they spent on child play and learning across educational pairings. In other words, whether neither partner, only the mother, only the father or both partners had some formal education, fathers reported spending just over 1 hour per day on these activities, and none of the coefficients differed significantly from the reference group.

In contrast, the time fathers spent on caring for other household members varied by educational pairing, particularly when it came to caring for other household members. Fathers in couples where only the father was educated, and especially those in couples where both partners had formal schooling, spent significantly more time on this form of care than fathers in couples with no formal education. These increases represented some of the largest and most precise effects in the models.

Together, the results suggest that, while fathers' direct engagement in play and learning activities with children is similar across education levels, their broader unpaid care contributions are responsive to the couple's educational profile — most notably in households where both parents have some formal education.

Figure 3: Fathers' time use across activities by couple's educational pairing



Notes: The figure shows regression coefficients for educational pairing (x-axis). Time use categories are regressed on educational pairing dummies (where the omitted category is when both parents have no formal education) and controls (parent age, number of children, household asset index and age of youngest child).

Conclusions

Our results highlight how mothers and fathers of pre-school children in rural northern Ghana allocate their time, and how educational pairing further shapes parents' time-use patterns.

The time fathers in our study spent on child play and learning did not vary by education – but fathers with some formal schooling, especially in couples where both partners were educated, spent more time caring for other household members.

For mothers, time spent on child play and learning increased only when both parents had some formal education, indicating that shared educational background may enable or support mothers' engagement in children's learning. The time mothers spent on unpaid care decreased slightly when they had some form of education but was still substantially higher than fathers across all educational pairings.

Together, these findings suggest that how mothers' and fathers' education levels align within couples is associated with meaningful differences in household time allocation, particularly in mothers' and fathers' caregiving patterns. At the same time, even in more educated couples, mothers continue to carry a disproportionate unpaid care burden.

Parent-based interventions should therefore account for existing time constraints and intrahousehold dynamics, integrating programme content into daily routines. Our findings support the recent trend of engaging fathers, in addition to mothers, to enhance early childhood development intervention feasibility and equity.

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Thrive

Thrive is a multi-country research programme that aims to support countries to turn what we know about positive early childhood development into practical, scalable, low-cost programmes, able to transform societies over multiple generations. Working closely with policymakers and other stakeholders, Thrive aims to build understanding of early childhood development service delivery models and how they can be provided cost effectively and at scale, and how these systems can innovate, improve, and better serve children and communities in low- and middle-income countries.

Our five focus countries are Bangladesh, Ghana, Kiribati, Sierra Leone and Tanzania.

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