



Maternal stimulation and early child development in Sub Saharan Africa (SSA): Evidence from Kenya and Zambia

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Maternal engagement and stimulation are critical inputs for healthy development. However, relatively little evidence on the links between maternal stimulation and child development exists in SSA. The current paper aims to identify the associations between maternal stimulation and child development in Kenya and Zambia as well as predictors of developmental outcomes. We conducted a descriptive study using data from Kenya and Zambia. The primary exposure variable of interest was maternal stimulation activities, grouped into cognitive, language, motor, and socio-emotional activities.

The outcome of interest was child development. We estimated the associations between overall and domain-specific maternal stimulation scores and child development across the three survey rounds. Maternal stimulation scores were associated with a 0.55 SD (95% CI [0.44 - 0.66]) increase in ASQ-3 z-scores in round one, a 0.25 SD (95% CI [0.11 - 0.40]) increase in round two and a 0.23 SD (95% CI [0.10 - 0.35]) increase at round three.

Domain-specific associations were largest for cognitive and socio-emotional stimulation in round one with coefficients of 0.43 SD (95% CI [0.28 - 0.57]) and 0.28 SD (95% CI [0.14 - 0.41]), respectively. The largest associations with developmental outcomes in round two were found to be language stimulation with coefficients of 0.33 SD (95% CI [0.20 - 0.45]) and for motor activities at round three with coefficients of 0.33 SD (95% CI [-0.02-0.36]). There is a strong positive link between maternal stimulation activities and children's developmental outcomes. Policies that support caregivers to promote opportunities for stimulation of their young children are critical.

