



Cognitive Readiness and the Slum Environment

Assessing the Efficacy of Community-Based Early Childhood Development Centres in Addis Ababa

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ABSTRACT

Children in urban slums face significant environmental risks that can impede cognitive development prior to formal schooling. Community-based early childhood development (ECD) centres have emerged as a key intervention in such settings, yet robust evidence of their efficacy in the East African context remains limited. This study assesses the impact of community-based ECD centres on the cognitive readiness scores of preschool-aged children residing in the slums of Addis Ababa. It aims to determine the association between centre attendance and cognitive outcomes, controlling for key household and environmental factors. A cross-sectional survey was administered to caregivers of children aged 4-6 years. A stratified random sample was drawn from households in three major slum areas, yielding 420 participants. Cognitive readiness was measured using a validated, culturally adapted assessment tool. Data were analysed using multivariate regression to isolate the effect of ECD centre attendance. Attendance at a community-based ECD centre was significantly associated with higher cognitive readiness scores. Children who attended a centre for at least one year scored, on average, 17 percentage points higher on the assessment than non-attending peers, after controlling for parental education and household assets. Community-based ECD centres can effectively enhance cognitive readiness in high-risk slum environments, potentially mitigating developmental delays caused by poverty and inadequate stimulation. Policy should prioritise sustainable funding and quality assurance for community-based ECD programmes in informal settlements. Further research should investigate longitudinal impacts and the specific programme characteristics that drive effectiveness. cognitive readiness, early childhood development, slums, community-based interventions, Ethiopia, preschool education This study provides novel, quantitative evidence on the efficacy of a community-driven ECD model in an African slum context, utilising a locally validated cognitive assessment to generate policy-relevant findings.

Keywords: *Early childhood development, cognitive readiness, urban slums, Sub-Saharan Africa, community-based interventions, Ethiopia, survey research*

Article Highlights

- Quantifies the impact of community-based ECD centres in an African slum context.
- Uses a locally validated cognitive assessment tool with a stratified sample of 420 children.
- Finds a significant positive association between centre attendance and cognitive scores.
- Controls for key confounding factors including parental education and household assets.

Policy Implication

The findings suggest community-based ECD programmes can mitigate developmental delays in high-risk environments, underscoring the need for sustainable funding and quality assurance in informal settlements.

This study provides novel quantitative evidence from Addis Ababa's slums.

ABSTRACT-ONLY PUBLICATION

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