

Research on Early Childhood Development in Low-Income Countries

Monday, March 26, 2012, 8:30am-1:00pm

The Brookings Institution, Stein Room, 1775 Massachusetts Ave, NW, Washington, DC

On March 26, the [Center for Universal Education](#) (CUE) and the [Society for Research in Child Development](#) (SRCD) co-hosted a half-day workshop entitled “Research on Early Childhood Development in Low Income Countries.” To open the day, CUE Senior Fellow [Jacques van der Gaag](#) stated that the meeting’s motivation was to take stock of the current body of research available and Dr. [Martha Zaslow](#), director of SRCD’s Office for Policy and Communications, addressed the need to chart future research priorities among researchers dedicated to the field of child development in developing countries so as to inform program and policy approaches.

The first presentation was given by [Marc H. Bornstein](#), head of Family and Child Research at the Eunice Kennedy Shriver National Institute of Child Health and Development. He presented findings from cross-national data on early child development (ECD) that had been recently published in a special section of the journal *Child Development*. Stressing the importance of systematic, population-based multinational data from the developing world, Bornstein described the Multiple Indicator Cluster Survey (MICS), a household survey that can be used to support evidence-based policy formulation, assess trends and measure disparities. Next, Bornstein discussed how he and his co-authors related a country’s performance on MICS to its Human Development Index (HDI), with the purpose of understanding how key indicators of a country’s development relate to child development indicators. Data from the third wave of MICS from 41 developing countries suggest that overall, mothers engage in more socio-emotional care-giving (i.e. engaging children in interpersonal interactions) than cognitive

caregiving. While GDP, schooling and HDI were found to be correlated with a parent's provision of cognitive caregiving, only GDP was found to be correlated with socio-emotional care-giving. The results point to the potential importance of strengthening parents' cognitive care-giving in laying a foundation for schooling. Further research is needed to examine whether cognitive stimulation in the home increases as GDP, parental schooling and/or HDI increase within a developing country. Bornstein and his colleagues underscored the substantial variation across developing countries in the presence of protective and risk factors for child development.

Discussant [Maureen Black](#) from the University of Maryland's School of Medicine acknowledged the value of MICS data, particularly given the previous lack of systematic data collection from developing countries. However, she noted that there are several drawbacks to MISC data, including: a disproportionate focus on data from parental report; many questions in the surveys with only yes or no responses; and limited attention to within-country variation. Black suggested the need for a more ecological perspective of ECD, which takes into account country-level norms around child development, community-level services, family resources and environment, as well as child growth, health and temperament. She questioned the usage of the HDI in comparing child development cross-nationally, which she suggested might be too distal. Instead, she suggested greater relevance of new indices like the Child Development Index, created by Save the Children. Lastly, Black shared the results of a priority-setting exercise coordinated at an ECD meeting hosted by UNICEF in February 2012, which demonstrated a perceived importance for research around risk factors such as under-nutrition and around early childhood interventions (including in the home as well as in early care and education). The results are summarized in a recent special edition of the journal *Lancet*.

The second presentation was given by [Jef Leroy](#) of the International Food Policy Research Institute (IFPRI). He presented the results of his paper "The impact of day care programs on child nutrition, health, and development in developing countries: a systematic review." A primary motivation for the paper was to understand how access to day care could be

a tool for increasing women's labor force participation rates and for influencing child development outcomes. Leroy and his co-authors conducted an extensive literature review of intervention studies that looked at nutrition, health, cognitive and socio-emotional child development outcomes related to day care interventions. Of many studies identified, they found that only six met articulated criteria for methodological rigor. All of these studies reported on evaluations of interventions conducted in Latin America. While the effects of these interventions on nutrition and health were inconsistent, there were positive short and longer-term effects on measures of cognitive and socio-emotional development. Leroy noted a need for future studies to more fully describe the experiences of children in the comparison groups, to use designs that minimize selection bias (though he noted the substantial challenge of using randomized control trials in some circumstances) and to work towards including analyses that help to explain the underlying bases for effects.

In response to Leroy's presentation, discussant [Florencia Lopez Boo](#) from the Inter-American Development Bank suggested that future iterations of research on this topic delve more deeply into the question of heterogeneous effects by age group, which could allow for more refined policy recommendations. She noted growing policy interest on care for infants and toddlers. Additionally, she suggested that a more precise look at both the quality of early care and education and children's actual attendance in programs could help clarify the net effects of treatments. She noted that both quality and dosage may vary substantially within intervention groups.

Amer Hasan from the World Bank gave the third presentation, providing initial results of an ECD program evaluation in Indonesia. The program had multiple components, including community facilitators who worked to sensitize villagers to the need for early childhood development programs; block grants to villages to upgrade existing ECED services or begin new ones; and teacher training. These programs also involved the management of allocated funds and the preparation of proposals for further early childhood programs. In keeping with the

presentation by Bornstein and colleagues, descriptive data from the baseline data collection point to the need of children especially for cognitive stimulation. The impact evaluation component, which is still in progress, is studying both the growth in presence and utilization of early childhood services and impacts on multiple indicators of child development, including those captured in the Early Development Instrument (EDI). Program results point to increases in the presence of early childhood centers and a steady increase in enrollment, increased likelihood of children of low socioeconomic status to be enrolled and higher EDI scores for children in the program than for those never enrolled, especially in the area of language and cognitive development. Children with one year of exposure to an early childhood program scored a full point higher on the cognitive/language component of the EDI, which increased with additional exposure to the program.

Discussant **Mary Young** from the Center on the Developing Child at Harvard University lauded the careful planning and capacity building that the ECED program in Indonesia utilized, including provision for a robust evaluation. She commented that although data collection was difficult, identifying what measures and procedures worked in this instance is an important contribution, particularly given the need for context-specific research in developing countries around ECD. Additionally, she acknowledged that using a population-based measure adapted to the Indonesian context was important and a major strength of the evaluation.

The fourth presentation was given by **Pablo Stansbery** from Save the Children, who presented the results of a randomized impact evaluation of a center-based ECD program in rural Mozambique. He noted that while rural poverty is acute, few ECD programs exist in rural areas in low income countries. Children attending the center-based ECD program in rural Mozambique had higher rates of primary school enrollment and attendance, and each additional month of preschool attendance increased the likelihood of primary school enrollment. Additionally, children in the program had improved problem-resolution skills, fine motor skills

and pro-social behaviors, while their parents were able to increase their labor market participation and were found to have stronger parenting practices. However, this ECD model was not effective at reducing stunting and improving language development. These results suggest the need for even earlier intervention to achieve impacts in these areas.

Discussant **Kimber Bogard** from the National Academy of Sciences commended the Mozambique study for using an experimental research design and examining a number of explanatory variables in addition to the provision of preschool in the analysis. She also commented that including a cost-evaluation and focusing on subsequent participation in schooling were major strengths. Bogard noted that this study calls attention to the need for focus on the features of the outcome measures included in studies in developing countries, including whether they have been validated for the specific population and whether they are culturally relevant. She added that greater attention might need to be focused on the quality of the interaction between teachers and children in order to understand the lack of language outcomes, but that this interaction quality should be viewed and understood in the broader context of cultural norms of adult-child interaction. She emphasized that on average, teachers in the program had only had six years of education. She underscored the prevalence of stunting among children in the sample and raised the possibility that future interventions should consider nutrition components.

Following the four presentations, **Joan Lombardi** from the Bernard van Leer Foundation and [Kofi Marfo](#) from the University of South Florida led a discussion of challenges in early childhood research in low income countries, as well as needed next steps. Marfo offered that even without their awareness, research methods are shaped by the researchers' culture, leading to the creation of tools that reflect researchers' own beliefs and biases. Therefore, there is no instrument without limitations. In order to counter these limitations, researchers in child development need to engage in critical discussions among themselves. Greater awareness of what cultural assumptions and understandings researchers are bringing to their work will, in

turn, can contribute to the intellectual maturity of the field. Furthermore, he said that the field needs to utilize a diversity of methods that incorporate various conceptions of child development. He illustrated his point about multiple conceptions of developmental phenomena with a reference to Robert Serpell's work on the Chewa people of the Eastern Province of Zambia, summarized in a special section of a recent issue of [Child Development Perspectives](#), where Serpell reports that the local language used by adults to describe children deemed 'intelligent' underscores *social responsibility* as an important dimension of intelligent behavior. Finally, he highlighted the importance of developing research capacity in the global south so that there are scholars who generate important research hypotheses and methods deriving from within these countries and so that there is a capacity for sustained research.

Lombardi discussed the breadth of the dialogue around early childhood development and the variability of measures used. She noted that the lack of coordination on measures and the use of indicators adapted for varying settings could pose a challenge summarizing results across studies. She emphasized the need to include the global south in discussions of next steps. After leading an interactive discussion with the participants, Lombardi concluded with three recommendations for the way forward: the creation of an accessible on-line repository for early childhood research from developing countries; a coordinated strategy for communicating research results to policymakers (citing the recent *Lancet* section on global early childhood development research as an example of excellent research that should be brought to the attention of further policymakers); and the need for further rigorous evaluation studies of early childhood programs encompassing a focus both on program implementation and on outcomes for children.