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MALAWI: Can steps to improve child centers help boost child development?

Children in disadvantaged families living in poor areas face numerous challenges, from lack of access to quality health care to insufficient nutrition and stimulation. By the time these children are supposed to start primary school, they often are already behind in terms of cognitive, social-emotional, and



language skills. Development organizations and governments are looking at preschool programs as a route for improving the skills and school readiness of children aged three to five in low-income countries. While studies of how

to establish early childhood programs in low-income countries and attract families have become more frequent, there's also a need to examine how to improve quality in already functioning childcare centers, as is the case in Malawi. For policymakers in others countries facing similar development challenges and financial constraints, evidence on different programs and their impact will help identify promising approaches to consider in their own countries.

In Malawi, researchers supported by the Strategic Impact Evaluation Fund (SIEF) worked with the government to study the impact of a pilot program to improve the quality of the country's Community-Based Childcare Centers, which serve children aged three to five years old in rural areas. The centers are free and they often have few play materials and rely on teacher volunteers with limited training. The impact evaluation measured the effectiveness of different approaches for improving quality above and beyond providing centers with play and learning kits, including offering additional teacher training, paying teachers a small stipend, and holding classes for parents on child development. The evaluation found that teachers who were trained did more learning activities in the classroom, and when teachers also received a stipend or parents attended classes on child development, teachers did even more in the classroom with the children. However, initial cognitive gains, seen among children in the group that received both teacher training and parenting classes, dissipated after children moved to primary school. Researchers are now working with policymakers in Malawi to see how the lessons learned can be incorporated into planning for future early childhood development programs.

Context

Poverty in Malawi is widespread—some 50 percent of the population fall below the country's national poverty level, and 70 percent live on less than \$1.90 a day, according to 2010 World Bank data—and close to half aren't able to meet their basic daily food requirements. The poverty has taken its toll on children. About half of children under the age of five are stunted, a sign of chronic malnutrition. In addition, almost one in five children is an orphan, often because parents have died from HIV/AIDS.

The Government of Malawi and donors established community-based childcare centers in rural areas in the 1990s to

provide assistance to orphans and other vulnerable children whose families had been affected by the HIV/AIDS pandemic. The centers have since been expanded to serve as early learning centers and as part-time childcare for working parents, and about a third of children aged three to five years in Malawi are now enrolled. The centers are operated by community members themselves and don't receive any funding from the government. They generally stay open for a few hours every morning on weekdays. In addition to providing childcare for working parents, they are supposed to offer stimulating activities for children and one nutritious meal a day, usually made from

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community gardens or provided by families that use the centers. The quality of the centers, however, is mixed. The teachers are often community volunteers with limited and sometimes no training. A 2010 government report estimated that less than half of the teachers had received the government-developed 14-day training module. The centers themselves are not housed in formal structures, and this contributes to the problems they face in staying open regularly.

In 2010, the World Bank, working with the Rapid Social Response Fund and the Government of Malawi, launched the [Protecting Early Childhood Development](#) project. This two-year pilot was designed to support young children's development by improving and strengthening existing early childhood centers. The project included an impact evaluation to measure the effectiveness of different approaches and help the Government of Malawi consider future steps.

Evaluation

The evaluation, carried out in four rural districts, was a cluster-randomized control trial with three treatment groups and one control group.

The baseline survey took place between September 2011 and February 2012, prior to the randomization. As part of the baseline, researchers identified 199 childcare centers that met the criteria for the study, including having a minimum number of children and having some sort of shelter to operate in bad weather. Participating centers, all of which received a kit of play and learning materials that was developed by UNICEF, were randomly assigned to one of four groups. The centers in the control group did not receive anything apart from the kit. The first treatment group received the play and learning materials and five weeks of training and then follow-up mentoring for teachers. The second treatment group received the play and learning materials, the training and mentoring, and also teachers were given a monthly stipend of MK 2,000 (equivalent to \$12 initially but the value later declined to the equivalent of \$6 due to an economic crisis) for seven months. The third treat-

ment group received the play and learning materials and the training and mentoring coupled with 18 sessions for parents on child development. Each hour-long session was delivered by one of the teachers trained through the program.

From the 199 childcare centers in the study, about 10 children per center were randomly selected to be surveyed for the evaluation, after being divided by age and sex to ensure representation. The total sample size was 2,120 children aged 36 months to 61 months at the start of the study and 2,009 primary caregivers, usually parents, of these children. Children's language, social-emotional, fine motor, numeracy and other skills were tested as baseline, when they were between three and five years old; then 18 months later, when the children were between four-and-a-half and six-and-a-half years old; and then again at the 36-month mark when they were between six and eight years old. Data were also collected on the caregivers, the home environment, classroom infrastructure and materials, the qualifications of teachers, and their interactions with the children.

Results

Children whose parents received child development classes and whose teachers received a special course of training and mentoring showed gains in language skills and social behaviors when compared with the control group and with the other treatment groups.

When measured 18 months later, when children in the childcare centers were about five-and-a-half years old, those whose parents received classes and whose teachers received training showed language skills improvements when compared with the control group, which only received play and learning materials. They also showed more positive behavior, defined as

caring, sharing, following rules, and other similarly positive social traits.

The gains weren't just when compared with the control group. The children showed better language skills and social behavior when compared with the group that received only teacher training and mentoring, indicating that the parenting education added value over and above teacher training at the childcare center level. Sub-group analysis, which should be treated with caution, indicates that the gains in language skills were concentrated among children whose main caregiver had completed primary school. The finding is suggestive of the parenting intervention and primary caregiver's education being complements to each other, which is consistent with another study* in the literature.

After 18 months, parents who received child development classes reported improvements in how they interacted with their children.

Parents were asked about activities they did with the children to encourage learning, such as reading books, telling stories, singing, playing with them, and helping them learn numbers, letters, shapes, and other things. The group assigned to receive the parenting classes 18 months earlier were significantly more likely than the other two treatment and control groups to report that they read, played, and chatted with their children. This is in line with the improved language skills seen among children whose parents received the childhood development classes.

Teachers who received training and mentoring were better at engaging and communicating with the children than teachers who only received the play and learning materials...

Surveyors turned up unannounced at the childcare centers to observe what was happening in the centers and the activities the teachers were leading. In terms of supervising the children, dealing with their behaviors, and communicating with them, teachers who received the training were more engaged than the control group.

...but the biggest gains were seen among teachers who were paid a stipend and among teachers in the group in which parents received parenting classes on child development.

Providing small payments to teachers, along with the training, resulted in teachers doing more with the children, and the survey

also found that these teachers were more likely to do activities with the children related to learning numbers, letters, problem solving, and fine and gross motor activities. Interestingly, giving parents information about the importance of child stimulation also had an impact on what teachers in these childcare centers did with the children, leading to similar increases in activities for learning and fine and gross motor skills, when compared both with teachers who also received only training and with the control group that only received the play and learning kits.

Nonetheless, gains in children's language and social-emotional skills were seen only among the group whose parents received the combined intervention of parenting support and teacher training.

At the 18-month mark, enrollment also had risen in childcare centers that received two of the three programs.

The childcare centers are free but parents don't always send their children. Interestingly, enrollment increased significantly in two of the three treatment arms—training, and training and parenting classes—which may indicate that parents value improvements in school quality over and above the basic learning and play materials received by the control schools.

In centers where teachers received small stipends, there also was a higher likelihood that teachers would have at least completed primary school. Teachers who hadn't completed primary school were more likely to leave and they were more likely to be replaced by teachers with a primary school education. However, the incentives (in the form of monthly stipends) didn't increase retention of trained teachers over and above teacher training alone.

Nonetheless, 36 months after the program was implemented, when children in the initial group were about seven years old, almost all gains had disappeared.

Children in all the centers were tested for various cognitive and socio-emotional skills related to school readiness. Those that had gone to centers that received the teacher training and any of the additional treatments didn't show any sustained gains compared with children who had attended centers that received only the



* Banerji, Rukmini, James Berry, and Marc Shotland. 2017. "The Impact of Maternal Literacy and Participation Programs: Evidence from a Randomized Evaluation in India." *American Economic Journal: Applied Economics* 9 (4): 303–37.

play and learning materials. The positive effects on teacher behaviors also largely disappeared.

There was also no impact on children's primary school attendance or grade progression. Parents in the group that received the parenting classes were still more likely to report doing more stimulation and learning activities with their children, but the standardized effect sizes were somewhat smaller.

One hypothesis for why the gains seen among children disappeared is that by age seven, children have spent one or two years in primary school. Rural primary schools in Malawi

are of very low quality: There can be upwards of 75 or more children in a classroom and the overall situation for learning is poor. It's possible that the primary school not only holds back a child from progressing, but can be a factor in causing a child to lose previous gains.

Although primary education is free and almost all children enroll, only 55 percent of boys and 45 percent of girls finish primary school.

World Bank's Country Assistance Strategy Report (2012)

Conclusion

The impact evaluation sought to measure improvements in children's development at the critical age period of three to five years, when there's an opportunity to improve school readiness skills that can help with a successful start to primary school. The World Bank program to support Malawi's extensive network of early childcare centers was a good opportunity for impact evaluation researchers to test different approaches by setting up three treatment arms around teacher training, teacher stipends, and classes for parents on child development.

Questions to be considered for future research include what steps would help sustain the gains seen at 18 months, and what should be done to ensure more children benefit? The interventions were relatively short in terms of training—five weeks for teachers, and 12 classes for parents. Would it help to have refresher courses for both? Do we need to take a closer look at the primary schools to see what needs to be reinforced in the formal school setting to maintain and enhance child development gains?

The Strategic Impact Evaluation Fund, part of the World Bank Group, supports and disseminates research evaluating the impact of development projects to help alleviate poverty. **The goal is to collect and build empirical evidence that can help governments and development organizations design and implement the most appropriate and effective policies for better educational, health, and job opportunities for people in developing countries.** For more information about who we are and what we do, go to: <http://www.worldbank.org/sief>.

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THE WORLD BANK, STRATEGIC IMPACT EVALUATION FUND
1818 H STREET, NW WASHINGTON, DC 20433

Series editor and writer: Aliza Marcus

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