Researchers
Frances Aboud
McGill University

Lia Fernald
University of California, Berkeley

Pamela Jakiela
Williams College

Heather Knauer
University of Michigan

Owen Ozier
Williams College

Staff
Elyse Thulin
Research Manager

Timeline
2015-2020

Study Status
Results

Study Type
Randomized Evaluation

Sample Size
357 caregivers and 510 children aged 2-6

Research Implemented by IPA
Yes



Early Childhood Research Quarterly 50 (2020) 179–190

Contents lists available at ScienceDirect

Early Childhood Research Quarterly

ELSEVIER

Enhancing young children's language acquisition through parent–child book-sharing: A randomized trial in rural Kenya

Heather A. Knauer[a,*], Pamela Jakiela[b], Owen Ozier[c,d], Frances Aboud[e], Lia C.H. Fernald[a]

[a] University of California, School of Public Health, Berkeley, United States
[b] Center for Global Development, United States
[c] The World Bank, Development Research Group, United States
[e] McGill University, Department of Psychology, Canada

ARTICLE INFO

Article history:
Received 1 March 2018
Received in revised form
12 December 2018
Accepted 3 January 2019
Available online 30 April 2019

Keywords:
Dialogic reading
Word gap
Early childhood
Small-language storybooks
Primary school readiness

ABSTRACT

Worldwide, 250 million children under five (43%) are not meeting their developmental potential because they lack adequate nutrition and cognitive stimulation in early childhood. Several parent support programs have shown significant benefits for children's development, but the programs are often expensive and resource intensive. The objective of this study was to test several variants of a potentially scalable, cost-effective intervention to increase cognitive stimulation by parents and improve emergent literacy skills in children. The intervention was a modified dialogic reading training program that used culturally and linguistically appropriate books adapted for a low-literacy population. We used a cluster randomized controlled trial with four intervention arms and one control arm in a sample of caregivers (n = 357) and their 24- to 60-month-old children (n = 510) in rural Kenya. The first treatment group received storybooks, while the other treatment arms received storybooks paired with varying quantities of modified dialogic reading training for parents. Main effects of each arm of the trial were examined, and tests of heterogeneity were conducted to examine differential effects among children of illiterate vs. literate caregivers. Parent training paired with the provision of culturally appropriate children's books increased reading frequency and improved the quality of caregiver-child reading interactions among preschool-aged children. Treatments involving training improved receptive vocabulary. The children of illiterate caregivers benefited at least as much as the children of literate caregivers. For some outcomes, effects were comparable; for other outcomes, there were differentially larger effects for children of illiterate caregivers.

© 2019 . Published by Elsevier Inc. All rights reserved.

1. Introduction

Poverty has significant and lasting consequences for children's cognitive and language development (Bradley & Corwyn, 2002; Brooks-Gunn & Duncan, 1997). In low- and middle-income countries (LMICs), 43% of children under age five do not reach their developmental potential (Black et al., 2017). Even in Kenya, one of the best-educated countries in Sub-Saharan Africa, only 30% of third graders can read at the second-grade level (Piper, 2010), and 34% of pre-school children are "on track" for language and numeracy development (Kenya National Bureau of Statistics, 2013). The lack of adequate literacy preparation is a key risk factor for poor performance in primary school worldwide (Behrman et al., 2000).

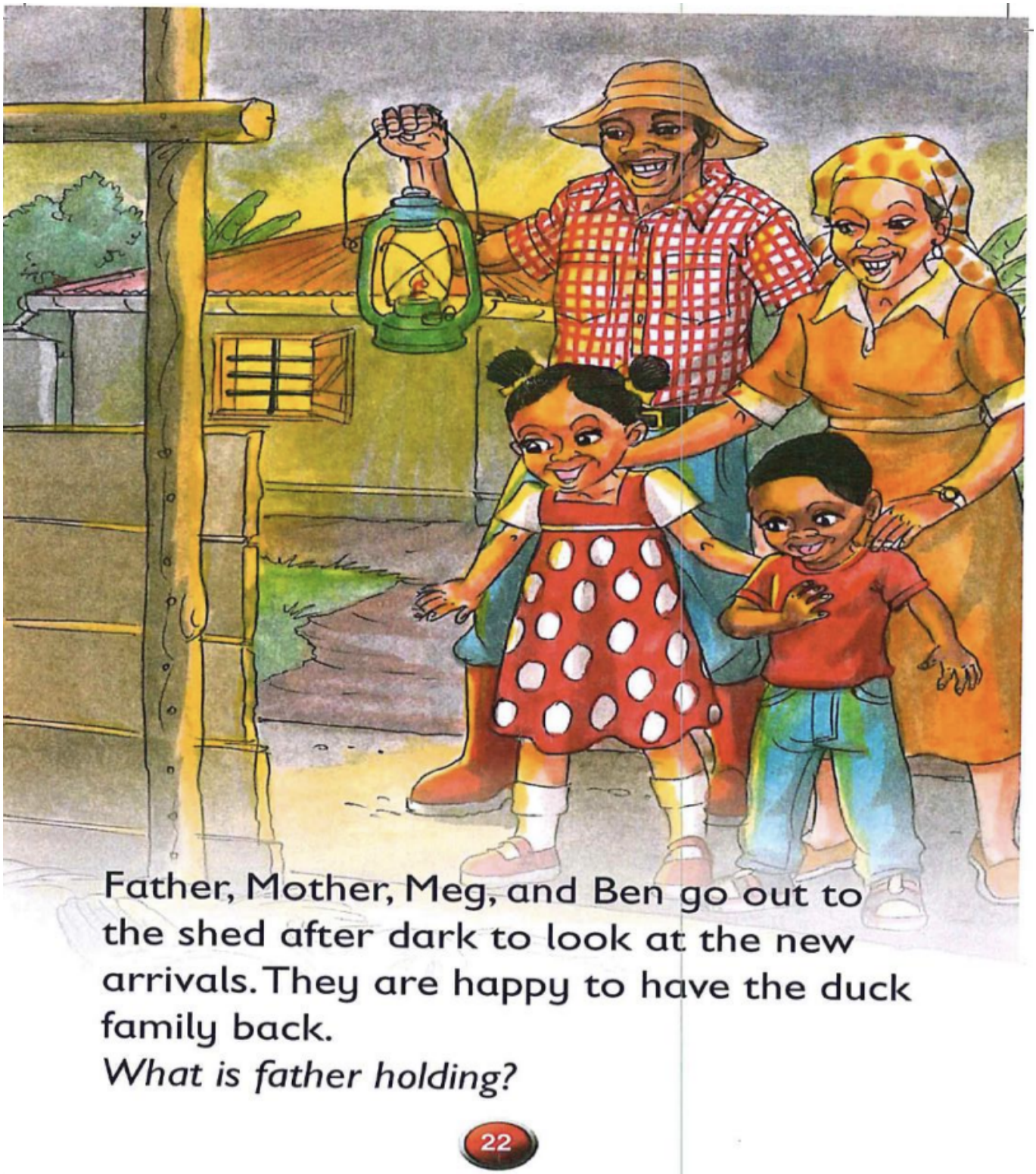
One reason children living in poverty do not achieve their potential in terms of language development and emergent literacy is that they do not have access to linguistically stimulating home environments (Lee & Ginsburg-Block, 2016). The availability of storybooks in the home and the quantity and quality of parents' reading engagements with their children are consistently associated with children's cognitive and language development, school readiness, and achievement (Bakeri et al., 2006; Park, 2008; Rodriguez et al., 2009; Zauche, Thul, Mahoney, & Stapel-Wax, 2016). In particular, exposure to storybooks has a direct, positive, causal impact on children's vocabulary and language skills (Kargiyare & Sinclair, 2000).

In spite of the importance of books and parental engagement, 97% of households in Sub-Saharan Africa have two or fewer children's books, and only half of parents report having engaged in any cognitively stimulating activities with their young children in the last three days (United Nations Children's Fund, 2017). In some African contexts, responsive conversations between parents and their young children are actively discouraged by cultural norms

* Corresponding author at: 1818 H Street NW, Mail Stop MSN MC3-311, Washington, DC 20433, United States.
E-mail address: [redacted]
Present address: University of Michigan, School of Social Work, United States.

https://doi.org/10.1016/j.ecresq.2019.04.002
0885-2006/© 2019 Published by Elsevier Inc. All rights reserved.

Storybooks Promote Early Childhood Literacy in Kenya



In This Image

A storybook for young Kenyan children. Questions that the parents can address with their child are written in italics.

Storybooks and parental engagement are essential in building children's language and vocabulary skills, cognitive development, and school readiness. However, according to the United Nations, 97 percent of households in Sub-Saharan Africa have two or fewer children's books.[1] The lack of these resources may contribute to the region's low child literacy levels. Even in Kenya — one of Africa's best-educated countries — children have few opportunities for reading experiences outside of the classroom before they reach primary school, especially in rural areas. A 2011 survey in Kisumu County in western Kenya found that 84 percent of children under the age of five lived in homes without a single children's book.[2]

Researchers developed an intervention in Kisumu County to distribute storybooks to households and provide training to caregivers about how to engage with their children while reading. Households received six Kenyan books with text and colored pictures: two in English, two in Swahili, and two in the local language Luo. A total of 357 caregivers and 510 children aged 2-6 participated in the intervention. Outcomes of interest included children's language development skills and frequency of child-caregiver reading interactions.

Results showed that the distribution of storybooks and importantly training in how to talk about the story increased the likelihood of caregivers reading to their children and increased children's comprehension of the books. The caregiver training increased the frequency and quality of child-caregiver reading engagement as well as children's knowledge of book-related vocabulary words. Additional training did not have an impact on outcomes, however, indicating that one training session was sufficient to increase caregivers' engagement. While there were no overall differences in the intervention's effectiveness by caregiver literacy, children of illiterate caregivers experienced the largest increase in storybook-related expressive vocabulary.

Sources

1. Keeley, Brian, and Céline Little. The State of the Worlds Children 2017: Children in a Digital World. UNICEF. 3 United Nations Plaza, New York, NY 10017, 2017.

2. Kenya National Bureau of Statistics and United Nations Children's Fund (2011). Multiple Indicator Cluster Survey 2011, Nyanza Province. Accessed at microdata.worldbank.org/index.php/catalog/2660.

Partners

Moran Publishers

Innovations for Poverty Action

March 06, 2023