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RESEARCH ARTICLE

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## Health education for microcredit clients in Peru: a randomized controlled trial

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### Abstract

**Background:** Poverty, lack of female empowerment, and lack of education are major risk factors for childhood illness worldwide. Microcredit programs, by offering small loans to poor individuals, attempt to address the first two of these risk factors, poverty and gender disparity. They provide clients, usually women, with a means to invest in their businesses and support their families. This study investigates the health effects of also addressing the remaining risk factor, lack of knowledge about important health issues, through randomization of members of a microcredit organization to receive a health education module based on the World Health Organization's Integrated Management of Childhood Illness (IMCI) community intervention.

**Methods:** Baseline data were collected in February 2007 from clients of a microcredit organization in Pucallpa, Peru ( $n = 1,855$ ) and their children ( $n = 948$ ). Loan groups, consisting of 15 to 20 clients, were then randomly assigned to receive a health education intervention involving eight monthly 30-minute sessions given by the organization's loan officers at monthly loan group meetings. In February 2008, follow-up data were collected, and included assessments of sociodemographic information, knowledge of child health issues, and child health status (including child height, weight, and blood hemoglobin levels). To explore the effects of treatment (i.e., participation in the health education sessions) on the key outcome variables, multivariate regressions were implemented using ordinary least squares.

**Results:** Individuals in the IMCI treatment arm demonstrated more knowledge about a variety of issues related to child health, but there were no changes in anthropometric measures or reported child health status.

**Conclusions:** Microcredit clients randomized to an IMCI educational intervention showed greater knowledge about child health, but no differences in child health outcomes compared to controls. These results imply that the intervention did not have sufficient intensity to change behavior, or that microcredit organizations may not be an appropriate setting for the administration of child health educational interventions of this type.

**Trial Registration:** This study is registered with ClinicalTrials.gov, NCT01047055.

### Background

#### A Comprehensive Intervention to Reduce Childhood Illness

Since 1995, the Division of Child Health and Development at the World Health Organization has been partnering with governments and non-governmental organizations to promote a comprehensive strategy to address the multi-factorial and interactive determinants of childhood illness [1]. Known as the Integrated Management of Childhood Illness (IMCI), this program's

goal is to reduce death, illness, and disability among children less than five years old, while supporting their growth and development [2]. The three goals of IMCI are to improve a country's infrastructure, to train health workers, and to deliver community-based interventions such as health education. The issues addressed by the three components of IMCI are modified based on the needs of the region of delivery, but generally include breastfeeding promotion, and the prevention and treatment of pneumonia, diarrhea, malaria, measles, and malnutrition through various techniques [1].

Studies in many developing countries have shown IMCI to be successful at improving child health outcomes. Some have assessed interventions encompassing

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