Abstract

With high rates of poverty, HIV, and consequently high rates of death in households, children in the South African province KwaZulu-Natal (KZN) face several threats to well-being. It is estimated that approximately 13% of children have experienced the death of one or both parents and approximately half of those were due to HIV-related illness. Children who have been orphaned often experience mental health difficulties.

The sample of this study is composed of data from 1961 Zulu households living in KZN collected across two time points, spaced 18 months apart. First, multiple regression analysis was conducted to investigate the relationship between and experiencing a recent death and children’s psychosocial outcomes. Then, propensity score analyses were conducted to examine the causal impact of experiencing a recent household death on children’s psychosocial outcomes. To reduce the threat of selection bias, children in the treatment and control groups were matched on relevant pre-treatment covariates. The treatment group consisted of participants who experienced a death in the household between the two times points of data collection.

The propensity score analysis revealed that there was a positive, though non-statistically significant effect of the treatment on the treated for children’s average psychosocial difficulties (\( \beta = 0.046, S.E. = 0.032, p = 0.488 \)). This suggest that children who experienced a death within the past 18 months did not differ in their levels of psychosocial difficulties as compared to a matched comparison sample of children who did not experience a death in that period.

Background

Though apartheid ended over 20 years ago, South Africa remains unstable with shockingly high rates of HIV/AIDS, poverty, and severe racial, class, and gender inequality.

The existing literature is mixed with respect to the evidence that psychosocial health of children is put at risk after experiencing parental death. Some studies have found that children may be quite resilient following the death of a parent (e.g., Fristad et al., 1993).

While most studies have examined orphanhood of biological parents, in a context were extended family in the household is culturally important, this study explores the impact of death at the household level.

There are no known studies investigating the causal effect of experiencing a death in the household on children’s outcomes.

Causal analyses allow researchers to statistically estimate the causal effect of experiencing a death as if people were randomly assigned to treatment and control groups.

Methods

• **Project:** This project is part of the “Sibhekelela izingane zethu (SIZE)” or “We look out for our children” project conducted in KwaZulu-Natal, South Africa.

• **Participants:** At wave 1, 1961 households participated. These households were from 24 communities in KZN, each with a focal child between the ages of 7 to 10. At wave 2 (18 months later), 1725 households participated in follow-up questionnaires.

• **Outcome Measures:** Outcome measures were carefully chosen based on the prior use and validation in Sub-Saharan Africa. Childhood difficulties were assessed using caregiver ratings of select items from the Strengths and Difficulties Questionnaire (Goodman, 1997; Wave 1: \( \alpha = 0.609 \) \( M = 1.39 \), \( SD = 0.28 \)); Wave 2: \( \alpha = 0.609 \) \( M = 1.39 \), \( SD = 0.28 \).

• **Treatment Condition:** The treatment group consisted of households who reported that they had experienced a death within between wave 1 and wave 2 (\( N = 123 \)).

• **Missingness:** Multiple imputation of missing data at wave 1 (2% to 33%) was conducted using Stata 12. After imputation there was no missingness.

• **Analytical Plan:**
  1. Traditional multiple regression analysis was conducted to investigate the association between experiencing a death and children’s psychosocial outcomes.
  2. Propensity score matching was conducted to estimate the causal effect of experiencing a recent death.

Causal Analysis

• **Causal Analyses:** Propensity score matching analyses were selected to estimate the effect of experiencing a death by restructuring the data so that the control group looks like the treatment group based on pre-treatment covariates.

• **Matching:** Pretreatment covariates were selected based on conceptual and theoretical understanding of the potential relationship to the treatment (experiencing death) and the outcome (average psychosocial difficulties). Using stringent balancing criteria, balance was achieved for 45 of 55 variables.

Results

• Experiencing a recent death in the household did not predict children’s psychosocial development (\( \beta = 0.000, S.E. = 0.023, p = 0.974 \)).

• The propensity score analysis revealed that there was a positive, though non-statistically significant effect of the treatment on the treated for children’s average psychosocial difficulties (\( \beta = 0.046, S.E. = 0.032, p = 0.488 \)).

• This suggest that children who experienced a death within the past 18 months did not differ in their levels of psychosocial difficulties as compared to a matched comparison sample of children who did not experience a death in that period.

Discussion

• Regression analyses and propensity score matching revealed non-significant results.

• Future analyses should investigate the potential effect of death on other domains of functioning including academic and health outcomes.

• Future analyses should explore potential omitted covariates that may be contributing to the nonsignificant findings.

Acknowledgements