

A Proposed Study of the Effects of Fathers' Involvement in Child Care on the Health Outcomes of HIV-infected Infants in South Africa



Anita Bal¹, Bianca Yeung¹, Gareth Mercer^{2,3}

¹Faculty of Science, University of British Columbia; ²MD/PHD Program, Faculty of Medicine, University of British Columbia;

³PhD Program, School of Population and Public Health, Faculty of Medicine, University of British Columbia

INTRODUCTION

- In 2011, nearly 30,000 children were newly diagnosed with HIV infection in South Africa¹.
- Children under 5 should begin AntiRetroviral Therapy (ART) immediately on diagnosis.²
- Good ART adherence is critical to maintain immune function and prevent development of antiretroviral resistance³
- Maintaining the health of HIV-infected infants requires caregivers to be highly attentive; however, few studies have investigated fathers' involvement in such care.⁴
- We propose a study to examine whether father involvement in HIV-related care for recently diagnosed HIV-infected infants is positively correlated with:
 1. Their adherence to ART therapy; and
 2. Their HIV-related health outcomes (lower viral loads, higher CD4+ counts).

METHODS

Study design and setting:

- Longitudinal cohort study
- Urban informal settlement in Cape Town, South Africa

Recruitment:

- Single, high volume community health center
- Enrollment will be offered to families of all children <1 year old diagnosed with HIV-infection during a one-year period
- Written informed consent obtained from all participants

Measurement of exposure and outcomes:

- HIV viral load and CD4+ cell counts measured at baseline and 1-year follow-up.
- Fathers' involvement and ART adherence measured at monthly visits.
- See figure 1 for detailed data collection procedures

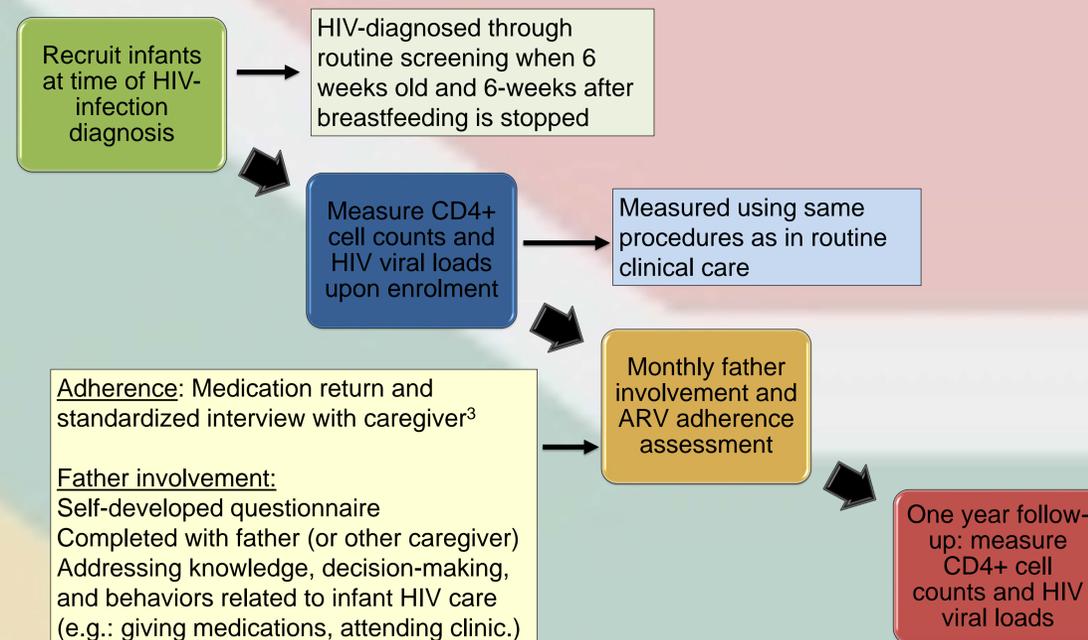


Figure 1: Timeline and method of assessment for exposure and outcomes

METHODS, cont.

Statistical methods:

- Means and standard deviations used to summarize outcomes (adherence, CD4+ cell counts, HIV viral loads)
- Frequency distributions used to summarize levels of fathers' involvement
- Children categorized as having "high" or "low" involvement fathers
- Two-sample t-tests used to compare levels of each outcome for children with "high" involvement fathers to those with "low" involvement fathers.

PREDICTED RESULTS

- We anticipate that few fathers will be highly involved in HIV-related child care because men tend to have been excluded from prevention of mother-to-child HIV-transmission programs⁴
- Child HIV-infection puts extra burden on caregivers, therefore we anticipate high involvement of fathers will be correlated with higher adherence and CD4+ counts, and lower viral loads.
- Potential confounding variables (e.g.: baseline CD4+ counts and viral loads, levels of involvement of other caregivers, and caregivers' education levels) may obscure this association. We will collect information on these variables and explore whether adjusting for them alters our findings.

LIMITATIONS

Limited generalizability:

- Because the study will be conducted at a single clinic, the findings may not be applicable to other areas in South Africa.
- Cultural, economic and health systems differences around the country (especially urban/rural differences) may cause quite different findings in other areas.
- It will be important to replicate this study in other areas before broad conclusions are made.

Validity:

- It will be important to assess the validity of the father involvement questionnaire before beginning the study, for example using focus group discussions to identify relevant questions, and pilot testing for comprehensibility.

IMPLICATIONS

- Findings of this study will fill an important gap in current knowledge
- Finding that greater paternal caregiving for HIV-infected children is associated with improved HIV-related health outcomes should be an impetus to policy makers and program planners to promote and support caregiving behavior among men.

REFERENCES

1. Joint United Nations Programme on HIV/AIDS. (2012). Together We Will End AIDS.
2. World Health Organization. (2013). Consolidated ARV guidelines.
3. Davies, M., et al. (2008). *BMC Pediatrics*. 8:34.
4. Desmond, C., and Hosegood, V. (2011). *Men, Families and HIV and AIDS*. In: Men in Families and Family Policy in a Changing World.

ACKNOWLEDGMENTS

We would like to thank the UBC URO for offering the REX program, and for their guidance and support in completing this research proposal.