

# **THE THIRD GENERATION**

**A mixed method study exploring the  
clinical and social context for children  
born to HIV-perinatally infected  
mothers in Harare, Zimbabwe**

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# Collaborative Project

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# Background

- Perinatally HIV-infected adolescents face challenges associated with long term ART, poor adherence and poor psycho-social health.
- Little is known about the challenges faced by their children in resource-limited settings.
- We sought evidence to improve the support of these vulnerable mothers and babies.

# Methodology

- 19 HIV-perinatally infected mothers participating in a community support group were recruited
- All completed a structured interview.
- Demographic, clinical, immunological, virological, psychological & neurological data were collected from mother-infant pairs.
- Descriptive statistical analyses were undertaken.
- 10 mothers were purposively selected for in-depth interview and five kept audio diaries.
- In-depth interviews were audio-recorded, transcribed, translated and analysed using thematic analysis.

# Maternal characteristics

- 19 mothers aged 17-24 years.
- 11 (58%) were married; 8 (42%) were divorced
- 17 (89%) were orphans; 16 (84%) were economically dependent.
- 6 (32%) had disclosed their HIV status to partners prior to pregnancy.
- Due to fear of disclosure
  - 17 mothers presented late for ANC services (13 after 24 weeks).
  - 7 (37%) mothers reported poor ART adherence.

# Clinical characteristics - maternal

<b>Median age at diagnosis (range)</b>	<b>13 years (9-20)</b>
<b>Median age at ART initiation (range)</b>	<b>16 years (9-22)</b>
<b>Median duration on ART (range)</b>	<b>8 years (1-11)</b>
<b>Current WHO stage</b>	<b>2</b>
	<b>1 (8.3)</b>
	<b>3</b>
	<b>10 (83.3)</b>
	<b>4</b>
	<b>1 (8.3)</b>
<b>Current ART regimen</b>	<b>1<sup>st</sup> line</b>
	<b>14 (74 %)</b>
	<b>2<sup>nd</sup> line</b>
	<b>5 (26 %)</b>
<b>Current mean CD4 – mean (sd)</b>	<b>517 (270)</b>
<b>Current mean viral load - mean (sd)</b>	<b>38628 (121611)</b>
<b>Number with VL&lt;400 copies/ml (%)</b>	<b>9 (47%)</b>
<b>Number with drug resistant virus (%)</b>	<b>7 (36.8%)</b>
<b>History treatment interruptions (%)</b>	<b>7 (36.8%)</b>

# Characteristics of babies

- Babies were aged between 2 weeks - 40 months.
- Median birth weight 2.8kg (range 2.1 - 3.9kg).
- 17 babies received NVP prophylaxis and 10 cotrimoxazole prophylaxis (no treatment interruptions reported).
- 18 babies were up to date with their scheduled vaccinations.
- All babies older than 6 weeks were HIV negative at 6 weeks post-delivery and have remained negative.

# Clinical assessments

- Clinical examinations found that all babies were well
  - 2 babies who had umbilical hernia.
- 2 babies had been severely underweight in the first 6 months of life.
- A single neurodevelopmental assessment indicated that 10/13 babies had delayed language and cognitive development.

# Feeding recommendations for HIV infected mothers in Zimbabwe

- New feeding guidelines were issued in July 2013.
- Mothers should breastfeed exclusively for six months, provided the mothers are on ART.
- Mothers should introduce liquids and solids after baby is 6 months old.
- Mothers should breastfeed for as long as they can.

# Feeding characteristics

<b>Number breastfed</b>	<b>18</b>	<b>(95%)</b>
<b>Number still breast feeding</b>	<b>6</b>	<b>(33 %)</b>
<b>Median duration on breast milk (range)</b>	<b>6</b>	<b>(1-19)</b>
<b>Median duration on exclusive breast feeding (range)</b>	<b>6</b>	<b>(1-12)</b>

# Qualitative data – feeding practices

- Mothers understand the importance of exclusive breastfeeding.
  - “Our peers who are negative give their children porridge as early as 2 months, but I can not do that even if my child cries at night. I was told not to give the baby porridge because he might be infected with HIV, so I want to continue giving him breast milk until he is above 6 months” (Lynette 18 years, married).
- Poor nutrition among nursing mothers made exclusive breastfeeding difficult for them.
  - “At night she will be crying and you can tell that she is hungry and not getting enough milk. I need good food but it is very difficult for me to get enough food at home. ....My grandmother said it’s not good for a child to cry at night, so I now give her thin fermented mealie meal porridge before we go to sleep” (Elizabeth 23 years, divorced).

# Qualitative data – feeding practices (2)

- Pressure from family members led to early cessation of breastfeeding; only five mothers breastfed for more than six months.
  - “When my sister in law discovered that I was HIV positive, she said I must stop breastfeeding. She influenced my mother in-law to put pressure on me and I weaned my baby at six months though I wanted to breast feed her for eighteen months” (Natalie, 20 years, married).
- Replacement feeding was sub-optimal in most cases.
  - “My husband’s relatives said you cannot breastfeed, they bought fresh (cows) milk for the first two months and later on I had to give him Maheu [traditionally brewed drink – sorghum or millet]. I was frustrated because at the clinic they told me that I could breastfeed exclusively for six months and I tried telling them that it was safe but my husband accused me of wanting to infect his son with my disease ...” (Tecla, 21 years, married).

# Psycho-social issues

- 3 mothers had major depressive disorder
  - 2 reported suicidal ideation.
- 2 babies were forcibly separated from their mothers by their in-laws, interrupting HIV-related post-natal care.
  - “When they [in-laws] asked me to leave their house my mother in law said I could not take the baby with me. I was breastfeeding at the time and I told them that I was not leaving my child behind. She [mother in law] said that she did not want her grandson to be raised by someone who has the disease. I was coughing and she said you will give the child TB but it was just an ordinary cough” (Nakai, 18 years, divorced).

# In summary

- Despite virological failure, delayed ANC and reported poor adherence to ART, all these 'third generation' babies remain HIV negative.
- All the babies were clinically well.
- Most young mothers failed to adhere to feeding recommendations for a variety of reasons.
- Social issues interrupt HIV-related post natal care.

# In conclusion

- HIV- perinatally infected adolescents face numerous psycho-social stressors.
- Pregnancy compounds this stress with adverse consequences for family and sexual relationships.
- Psychosocial support for perinatally infected mothers needs to be stepped up during this time.
- Guidance on feeding practices needs to be clear and extend beyond the mother alone.
- This study provides further evidence of the importance of involving men in the ante, peri and post natal care of their partners and children.

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Thank you