Psychosocial Perspectives on Motherhood Among Black Women Living With HIV: A Multi-Country Analysis

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Background

- HIV infection among women of childbearing age and mother-to-child transmission (MTCT) of HIV remain major global health issue.

- Globally, 36.7 million persons are living with HIV, half of whom are women of childbearing age (UNAIDS, 2016).

- It is estimated that 1700 infants become infected with HIV daily.

- 91% of these infants acquired HIV through MTCT (vertical transmission) during pregnancy, childbirth, or breastfeeding (AVERT, 2015; WHO, 2015).

- Consequently, breastfeeding may be responsible for 1/3-1/2 MTCT when interventions are not available.
Background...

- Breastfeeding is an important expression of motherhood yet it is key medium HIV MTCT.

- Motherhood have strong influence on maternal and child health.

- Fears of being criminally charged in Canada and USA where some Black mothers feel culturally obliged to breastfeed even when it is contraindicated diminish the strength of motherhood.

- Fears of MTCT of HIV in Nigeria where exclusive breastfeeding is recommended stifles motherhood experiences of women.
Purpose
This paper presents the psychosocial and sociocultural factors influencing the motherhood experiences of HIV+ Black women in context of infant feeding practices in three countries; Canada, Nigeria and USA.

Research Questions addressed include:
• How do cultural beliefs and practices of HIV positive Black mothers influence their infant feeding choices and practices within the first year of birth?
• How do existing global and national infant feeding recommendations for HIV positive women influence infant feeding practices among HIV positive Black mothers?
Infant Feeding Guidelines

- Infant feeding guidelines have been adapted in various settings, based on available resources and health system capacity.
- High-income countries (Canada, US, UK) mothers have access to acceptable, feasible, affordable, sustainable and safe (AFASS) feeding alternatives.
  - Mothers are strongly advised to exclusively formula feed regardless of ARV use and plasma viral load (Health Canada, 2015; WHO, UNICEF, UNFPA, & UNAIDS, 2010).
- When replacement feeding is not AFASS, (low-middle income countries), exclusive breastfeeding is recommended for the first six months of life (WHO, 2010).
- Mixed feeding, where breastfeeding is combined with other liquid or solid foods and substitutes, increases risk of HIV transmission and is strongly discouraged (WHO, 2010).
Public Health Messaging

- Western countries like Canada and the US promote breastfeeding as
  - The normal and unequalled method of feeding infants
  - Breast milk’s superior nutritional value/protection from childhood infections.
  - The potential of stimulating emotional connection between mother and child (Hazemba, Ncama, & Sithole, 2016)
- These educational campaigns promoting exclusive breastfeeding inspire positive change among women who might not breastfeed their infants.
Sociocultural Context of Infant Feeding

- Black women represent the highest population of women living with HIV (54.2%-64%) and disproportionately high rates (48%-54%) of MTCT among HIV-exposed infants born in Canada and the US.

- Childbirth and related processes are significantly influenced by culture
  - Culture socializes and educates, thereby eliciting the desire for particular preferences and ways of being including decisions about childbirth and infant feeding practices

- It is important to understand how guidelines that promote formula are perceived and implemented among women from cultural backgrounds that promote breastfeeding.
Tensions with Infant feeding

• Educational messages fail to acknowledge the social, practical, and cultural challenges of breastfeeding among women living with HIV and may inadvertently marginalize them (Greene et al., 2015, Odeny et al., 2016).

• Tensions further complicated for African immigrant women living with HIV from countries and cultures where breastfeeding is an expectation of all new mothers, and where using formula is a sign of illness and disease (Kapiriri et al., 2014).

• The infant feeding guidelines and public health messaging, therefore, present a paradox for childbearing women living with HIV in western countries like Canada and the US.
Infant Feeding Tensions...

• Many Black women view breastfeeding as a symbol of “good motherhood” and ‘the natural’ way of feeding a baby.

• They may choose to breastfeed despite:
  – their knowledge of the high HIV transmission risk through breast milk, to avoid being labelled a “bad mother” and speculation about their HIV status
  – risk of criminal charges for breastfeeding

• Therefore, examining the context that influences infant feeding choices among African immigrant women living with HIV will is necessary for the better response
Research Hypotheses

The following null hypotheses were tested:

• Infant feeding practices of HIV positive Black mothers in the Diaspora (Canada and USA) are not significantly different from those in their Origin country in Africa (Nigeria).

• Cultural beliefs among HIV positive mothers have no significant influence on their infant feeding practices.

• Familial opinions have no significant influence on infant feeding practices among HIV positive Black mothers.

• The Health providers’ opinion have no significant influence on Infant feeding Practices of HIV Positive Black mothers.

• The Knowledge of national or global guideline has no significant influence on the infant feeding practices of HIV Positive Black Mothers.
Data Collection and Sampling

• Prior to survey ethics approval was obtained from research ethics boards at affiliated institutions

• The surveys included standardized tools related to the following topics:
  • HIV/AIDS, Perinatal Health and Infant Feeding, Motherhood, Social support and Heightened Vigilance, Perceived Stress and Socio-cultural aspects of Infant Feeding.

• This study explored a venue-based convenience sample of HIV positive Black mothers

• Sample sizes: the effective response rates which was determined by the actual number of participants were Canada-89% (n=89), Nigeria-100% (n=400) and USA-67% (n=201) giving a total (n=690) from the three sites.
A multinomial logistic regression model was employed to establish the determinants of infant feeding practices using the SPSS software and Excel.

Within the model infant feeding practices was a categorical dependent variable with three outcomes:
- Exclusive formula feeding = 1, Mixed feeding = 2, Exclusive breastfeeding = 3.

The key independent variables included in the model for which hypotheses were tested were: cultural beliefs (dummy), family members’ opinions, health providers opinion, knowledge about the guideline, and country of residence.

Socioeconomic variables were included as independent variables as they can as well have profound influence on infant feeding practices.

The Loglikelihood chi-square statistics was employed to test model accuracy.
## Demographic Characteristics of Participants

<table>
<thead>
<tr>
<th></th>
<th>Canada n (%)</th>
<th>USA n (%)</th>
<th>Nigeria n (%)</th>
<th>All Sites n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of participants (n)</td>
<td>89</td>
<td>201</td>
<td>400</td>
<td>690</td>
</tr>
<tr>
<td>Mothers age (range)</td>
<td>19-49</td>
<td>18-49</td>
<td>18-49</td>
<td></td>
</tr>
<tr>
<td>Relationship status:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single/separated/divorced/widowed</td>
<td>57 (66.5)</td>
<td>61 (35.7)</td>
<td>57 (14.3)</td>
<td>185 (27.0)</td>
</tr>
<tr>
<td>Married</td>
<td>29 (33.3)</td>
<td>121 (60.8)</td>
<td>340 (85.2)</td>
<td>490 (71.5)</td>
</tr>
<tr>
<td>Number of persons in household (range)</td>
<td>1 - 7</td>
<td>1 - 9</td>
<td>1 - 11</td>
<td>1 - 11</td>
</tr>
<tr>
<td>Number of children born after HIV+ (range)</td>
<td>1 - 3</td>
<td>1 - 3</td>
<td>1 - 5</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Number of years since HIV+</td>
<td>1 - 29</td>
<td>1 - 27</td>
<td>1 - 20</td>
<td>1 - 29</td>
</tr>
<tr>
<td>Education:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary school</td>
<td>1 (1.1)</td>
<td>0 (0.0)</td>
<td>42 (10.7)</td>
<td>43 (6.3)</td>
</tr>
<tr>
<td>High school, technical or vocational school</td>
<td>34 (38.6)</td>
<td>131 (65.8)</td>
<td>250 (63.5)</td>
<td>415 (60.9)</td>
</tr>
<tr>
<td>College or university</td>
<td>50 (56.8)</td>
<td>66 (33.2)</td>
<td>102 (25.9)</td>
<td>268 (39.4)</td>
</tr>
<tr>
<td>Employment status:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed (full time or part time)</td>
<td>51 (57.3)</td>
<td>65 (32.7)</td>
<td>320 (87.9)</td>
<td>436 (66.9)</td>
</tr>
<tr>
<td>Unemployed</td>
<td>38 (42.7)</td>
<td>134 (67.3)</td>
<td>44 (12.1)</td>
<td>216 (33.1)</td>
</tr>
</tbody>
</table>
Figure 1: Groups mean scores on psychometric scales measuring three psychosocial variables
Figure 2: Infant feeding practice

Figure 3: Cultural beliefs/practices
Blocks contribution to variation in motherhood score in HLM of two groups combined

<table>
<thead>
<tr>
<th>Blocks</th>
<th>R-square values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1: sociodemographic variables - controlled variables)</td>
<td>0.399**</td>
</tr>
<tr>
<td>Block 2: Psychosocial and sociocultural variables- predictors</td>
<td>0.217**</td>
</tr>
<tr>
<td>Blocks 1 and 2</td>
<td>0.615**</td>
</tr>
</tbody>
</table>

**p<0.01
Results comparing coefficients of the predictor variables between groups (Canada/USA versus Nigeria)

<table>
<thead>
<tr>
<th>Psychosocial and sociocultural variables</th>
<th>Canada &amp; USA model ($\beta_{cu}$)</th>
<th>Nigeria model ($\beta_{NG}$)</th>
<th>Combined model ($\beta$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional social support (score)</td>
<td>0.21**</td>
<td>0.60**</td>
<td>-0.38**</td>
</tr>
<tr>
<td>Perceived stress (score)</td>
<td>-0.22**</td>
<td>-0.28**</td>
<td>0.06</td>
</tr>
<tr>
<td>Infant feeding practice (Adhering to guideline=1, otherwise=0)</td>
<td>13.40**</td>
<td>1.46</td>
<td>11.94**</td>
</tr>
<tr>
<td>Cultural beliefs/practices (Unopposed to guideline=1, otherwise=0)</td>
<td>-0.56</td>
<td>6.04**</td>
<td>-6.60**</td>
</tr>
</tbody>
</table>

**p<0.001,
Discussion and Implications

Psychosocial factors
- Social support as an important factor in the development of maternal identity (Mercer, 2014)
- Motherhood experiences of women living with HIV depended on availability of social support, particularly from family
- Maternal stress diminishes when the mother has functional social support (Jeong, Jeong & Bang 2013)
- Social stressors stemming from a lack of social support have adverse effect on maternal–infant attachment (Mercer, 2014)
- Anxiety about HIV positive status by Mothers was associated with parenting stress and poorer parenting (Murphy et al. 2011),
Discussion and Implications...

**Socio-cultural factors**

- Adherence to guideline was positively associated with motherhood in Canada and USA
- Adherence guideline had no significant association with motherhood in Nigeria
  - Due to the risk breastfeeding presents, some HIV+ mothers may decide to formula feed their infants, this goes against the guideline. However, it creates a positive sense of motherhood
  - Fear of this risk may explain why some HIV+ mothers in Nigeria who exclusively breastfed and were on ART, did not have significant positive motherhood experience.
- In addition, the fear of being criminalized for breastfeeding in Canada or USA may explain the positive association between adherence to guidelines and increased sense of motherhood.
Discussion and Implications...

Socio-cultural factors...

- Cultural beliefs/practices that are unopposed to infant feeding guidelines of exclusive formula feeding were not significant predictors of the motherhood in Canada and USA.

- By a significant difference, cultural beliefs/practices that are unopposed to infant feeding guidelines of exclusive breastfeeding was associated with motherhood in Nigeria.

- HIV+ women of African descent residing in Canada or USA but still in connection with their origin culture tend to be under pressure to breastfeed contrary to policy guidelines of exclusive formula feeding.

- The culture driven pressure not to abide by the guideline may be reasons for no significant positive association the motherhood experience with cultural beliefs/practices of HIV+ mothers in Canada and USA.
Conclusion

- Stress has significant impact on motherhood experience
- Culturally appropriate infant feeding policy are necessary not only to boost motherhood experience but also to reduce stress.
- Social support is effective tool to enhance motherhood
- National policy guidelines that encourage safe infant feeding practices for HIV+ women are key to strengthening motherhood among Black mothers in Canada and USA
- Public health education to help mothers make informed infant feeding decisions is vital for success
- Evidence based policy decision-making informed by multiple stakeholders including community partners will ensure effective HIV and perinatal programming and uptake.
Thank you!

Questions