Effects of Sociocultural Factors on Infant Feeding With Black African Mothers Living With HIV: A Synthesis of the Literature

Josephine Etowa, PhD, RN, FAAN
PI, University of Ottawa, Canada

Jean Hannan, PhD, ARNP, FAAN
Co-PI, Florida International University

J. Craig Phillips, LLM, PhD, RN, ARNP, ACRN, FAAN
Co-I, University of Ottawa, Canada

Seye Babatunde, MD
Co-PI, University of Port Harcourt, Nigeria

Research funded by the Canadian Institutes of Health Research (CIHR; Grant # 144831)
HIV infection among women of childbearing age and mother-to-child transmission (MTCT) of HIV remain major global health issues.

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 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

- With effective interventions (medications-ARV therapy to lower plasma viral load and appropriate breastfeeding practices) (UNICEF, 2016), MTCT is substantially reduced to below 5% (UNAIDS, 2011, 2015).

- WHO in partnership with others issued guidelines for infant feeding.

- The global plan: elimination of new HIV infections among children and keeping their mothers alive, reported that, between 2009 and 2014, many countries achieved a reduction in new infections among children of over 60% (UNAIDS, 2015).
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), breastfeeding is recommended for the first six months of life (WHO, 2016).

Mixed feeding, where breastfeeding is combined with other liquid or solid foods and substitutes, increases risk of HIV transmission and is strongly discouraged (WHO, 2016).
Recommended formula feeding: No consideration for cultural significance of breastfeeding practices and experiences among mothers, particularly from African countries where HIV is endemic (Green et al., 2015).

Canada, US, UK 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).
Educational campaigns promoting exclusive breastfeeding inspire positive change among women who might not breastfeed their infants.

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 existing infant feeding guidelines, therefore, present a paradox for childbearing women living with HIV in US, UK and Canada.
Represent the highest population of women living with HIV (54.2%-64%) and high rates (48%-54%) of MTCT infants born in Canada and the US (Public Health Agency of Canada, 2014, CDC. 2013).

Childbirth and related processes (infant feeding practices) significantly influenced by culture (Etowa, 2012; Odeny et al., 2016).

Need to understand the social determinants of infant feeding choices/practices in this sub-population.

Important to understand how guidelines that promote avoidance of breastfeeding are perceived and implemented among women from cultural backgrounds that promote breastfeeding.

According to Etowa (2012), culture socializes and educates, thereby eliciting the desire for particular preferences and ways of being including decisions about childbirth and infant feeding practices.

Therefore, examining the context that influences infant feeding choices among African immigrant women living with HIV will inform the development of effective interventions to promote adherence to exclusive feeding, whether breastfeeding or formula feeding, thereby reducing the risk of MTCT.
Literature Review
Pen-3 Cultural Model

- Identifying cultural beliefs and practices that critically influence perceptions and behaviors related to health and illness, and that should be acknowledged, encouraged, or discouraged to achieve desired health outcomes (Airhihenbuw et al., 2009).
- The PEN-3 model has been used to understand cultural perceptions and behaviors in studies with HIV, cancer, hypertension, and diabetes (Airhihenbuw et al., 2009; Cowdery, Parker, & Thompson, 2012).
Focus of the health behavior from person, extended family, or neighborhood.

Key factors influencing these behaviors (perceptions, enablers, or nurturers).

Impact of cultural behaviors on health (positive, existential or negative).
Methods

- A search of the literature identified studies reporting on cultural factors influencing infant feeding choices or practices among mothers of African descent living with HIV.

- Search targeted articles published in English from January 2001 to November 2016.

- Studies included were qualitative, quantitative and mixed methods designs.
Methods

- Identification of cultural behaviors influencing the infant feeding choices of women of African descent living with HIV.

- Positive behaviors: perceptions, values, and relationships identified as those that encourage adherence to infant feeding recommendations for HIV prevention.

- Existential aspects of behavior: intrinsic qualities of a behavior or value that make it unique to the specific context and sub-population of women living with HIV and the effects on infant feeding choices and practices.

- Negative behaviors: cultural behaviors, values or practices that lead to infant feeding choices and practices with potentially harmful effects on the infant, or discourage adherence to established feeding recommendations.

- Cross-tabulation: of the PEN-3 model for:
  - Perceptions towards infant feeding
  - Enabling factors
  - Nurturing factors
51 full-text articles reported socio-cultural factors influencing infant feeding choices of African mothers.
<table>
<thead>
<tr>
<th>Themes</th>
<th>Positive</th>
<th>Existential</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Perceptions</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge/understanding risks of mixed feeding</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge/understanding of established infant feeding guidelines</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Desire to breastfeed</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Identity as a mother</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Limited understanding of Exclusive Breast Feeding</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Fear of MTCT through breastfeeding</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Breast milk insufficiency</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Stigma, discrimination, repercussions from family/community</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Negative public perceptions people living with HIV (Rejection, abandonment, criminalization)</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Public health mantra of ‘breast is best’</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Acquiring a ‘new culture’</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td><strong>Enablers</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advice from healthcare workers</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Availability of PMTCT programs</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Access to counseling &amp; peer support groups</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Lay health workers</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Socioeconomic disadvantage</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Stigma &amp; discrimination from nurses</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Inconsistent standards of practice (i.e., WHO infant feeding recommendations frequently changing for mothers living with HIV)</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td><strong>Nurturers</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disclosure of status to supportive family/partner</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family support</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Partner support/involvement: infant feeding decisions</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Non-disclosure of HIV status to family/partner</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Family pressure to adhere to cultural beliefs, practices, and traditions of infant feeding</td>
<td></td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>
Perceptions: Positive, Existential & Negative

- **Positive:** Maternal knowledge/understanding-MTCT.
  - Mothers who understood risks of mixed feeding understood importance of adhering to guidelines.
  - Enabled by socio-demographic factors: higher maternal education, greater perceived social support, access to PMTCT programs (Hazemba et al, 2016; Marembo et al., 2014).

- **Existential:** Values/beliefs help explain practices in African culture and influence infant feeding choices (Iwelunmor et al., 2014).
  - Breastfeeding perceived essential to the baby’s health and development, by strengthening physical and spiritual bonds between mothers and their children (Hazemba et al., 2016).
  - Central to the mothering role.

- **Negative:** Fear of MTCT
  - Concerns about breast milk insufficiency.
  - Belief exclusive breastfeeding to be detrimental to own health.
  - Stigma and discrimination from community members if not breastfeeding.
  - Disclosure: Concerns about social isolation, abandonment or divorce or violence.
  - ‘breast is best’ mantra
Enabling Factors:
Adherence to recommended infant-feeding guidelines.

**Positive:**
- Advice from healthcare workers: decision to exclusively breastfeed.
- Healthcare workers were often the primary source of women's knowledge about MTCT of HIV via mixed feeding (Chisenga et al., 2011; Hazemba et al., 2016; Maman et al., 2012).
- Healthcare workers had a critical role in developing interventions to support status disclosure to avoid mixed feeding (Hazemba et al., 2016; Madiba & Letsoalo, 2013).
- Community peer support groups increased enabling environments (Adejuyigbe et al., 2008).

**Existential:** Resources available in the community (Iwelunmor et al., 2014).
- Seek care with lay health workers with whom they shared similar cultural and socio-economic characteristics to avoid the unfriendly attitudes of nurses in hospitals (Balogun & Odeyemi, 2010).

**Negative**
- Socio-economic disadvantages: Cost of formula.
- Limited understanding of exclusive breastfeeding.
- Stigma and discrimination from nurses: undermined adherence to WHO infant feeding recommendations (Buskens et al., 2007; Desclaux & Alfieri, 2009).
- Confusion resulting from frequently changing WHO recommendations: leads to insufficient health worker support to adherence to WHO recommendations.
- Healthcare workers reluctant to change counselling messages; did not feel comfortable with the new guidelines or concerned about losing women’s trust (Chinkonde et al., 2012; Shayo et al., 2014).
Nurturing Factors

Positive:
- Supportive environments for HIV positive status disclosure.
- Partner involvement/support.

Negative: Non-disclosure of HIV status to family and/or partners, and family pressure to adhere to cultural beliefs, practices, and rites. Only 16.2% disclose their HIV status to partners (Marembo and colleagues, 2014).
- Fear disclosure (Anoje et al., 2012; Fadnes et al., 2010).
- Nondisclosure negatively influenced infant feeding choices leading to mixed feeding practices (Mandiba & Letsoalo, 2013).
- Experienced pressure from family members to practice mixed feeding (Agunbiade & Ogunleye, 2012; Cames et al., 2010).
- In Malawi, mixed feeding was found to begin within the first 48 hours after birth.
- Social pressure to mix-feed: traditional cultural beliefs and practices undermined adherence to WHO recommendations for exclusive infant feeding, whether with breast milk or formula (Koricho et al., 2010; Madiba & Langa, 2014; Mataya et al., 2013).
Infant Feeding Dilemmas

- Malawi: Satisfying medical and social expectations (Chinkonde et al., 2012).
- Inconsistency between the public health ‘breast is best’ mantra and WHO recommendations.
- Caused tension for indigenous African women and immigrant African women living in Canada/US wanting to prolong breastfeeding after six months (Greene et al., 2015; Kapriri et al., 2014).
- Breastfeeding for women living with HIV in Canada is prohibited (Greene et al., 2015).
- Formula feeding is equally frowned on among immigrant societies with mothers being perceived as cruel and unloving (Kapriri et al., 2014).
- Immigrant women decide not to breastfeed perceived to be ‘acquiring a new culture.’
Discussion

- 4 key socio-cultural determinants of infant feeding choices and practices were identified
  - Individual maternal factors
  - Family and community influences
  - Health system support
  - Socio-economic and socio-demographic factors
Conclusion

- The first review to use of Airhihenbuwa’s (2009) PEN-3 cultural model to assess how socio-cultural factors influence infant feeding choices among mothers living with HIV from African countries.
- Findings are congruent with importance of culture when determining the level of health of the individual, family, and community context (Etowa, 2012).
- Review provides support that appropriate implementation of culture-centered interventions focusing on factors that nurture the individual including family and systemic contexts, is crucial towards achieving the WHO’s strategy to eliminate pediatric HIV.
- Public health programs that acknowledges existential factors related to infant feeding might better inform these mothers, while effectively addressing negative perceptions, values and practices.
Questions?

Thank you