

Breastfeeding Practices of HIV-Positive Mothers in Resource-Limited Settings

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Abstract

HIV-Positive mothers in resource-limited settings must balance the risk of HIV transmission through breast milk with the well-documented and culturally embraced benefits of breastfeeding when deciding whether or not to breastfeed their newborns. Additionally, these mothers must also simultaneously overcome the stigma associated with their HIV-positive status. Although a large amount of research has been conducted regarding this topic, few mothers in these settings are educated about the best practices to maximize the benefits of breastfeeding while minimizing the risk of vertical HIV transmission (Holmes & Savage, 2007). This paper utilizes a review of the current research regarding the issue of breastfeeding and HIV-positive mothers to determine the most effective practices, the barriers to implementation in resource-limited settings, and the educational approaches that would best overcome these barriers. Exclusive breastfeeding for six months and a need for successful and appropriate education interventions were deemed to be the most prominent findings.

Keywords: Breastfeeding, HIV, Vertical Transmission, Education, Culture

The Issue

Breastfeeding is universally acknowledged as a practice that provides significant benefits for infants and young children. All of these benefits, however, are nullified in the event of a vertical transmission of the HIV virus from mother to child (Holmes & Savage, 2007). According to the World Health Organization (2009), ten to twenty percent of babies who are breastfed by HIV-positive mothers over a period of two years will contract the virus from their mother's breast milk. HIV-positive mothers who live in resource-limited regions with high rates low of HIV infection – such as Sub-Saharan Africa – find themselves at a crossroads as they consider both the risk of HIV transmission and the benefits of breastfeeding that support a baby's health and stave off the major illnesses that are associated with high infant mortality. Resource-limited regions include those of high poverty rates, inadequate nutritional resources, and low availability of healthcare resources. These mothers represent a group within the wider culture of Africa that not only suffers from the dilemma of their babies' health, but is also persecuted by the cultural stigma that accompanies their status as HIV-

positive individuals ("HIV," 2009). By sharing the commonality of this attempted balance of the risk of transmission and the benefits of breastfeeding within the cultural context of HIV stigma, these women partake in a unique health experience and are therefore linked together in the realm of expanding research, treatment, education efforts, and experiences that surrounds the issue of HIV transmission by the practice of breastfeeding.

The issue of vertical transmission of HIV through breast milk is of paramount importance to the wellbeing of childbearing families in Africa, as it has a significant potential to alter family dynamics and take both an emotional and economic toll ("HIV," 2009). It is a tragedy that an estimated 300,000 children are infected with HIV each year through breastfeeding practices (Holmes & Savage, 2007). A current lack of education on behalf of HIV-positive mothers and an absence of infrastructure for the dissemination of evidence-based research and interventions serve as the largest barriers to regulation and negation of this issue. In a consideration of how to best care for HIV-positive mothers, education efforts represent the best means by which to tackle the dilemma of HIV and

breastfeeding ("HIV," 2009).

Review of the Literature

According to Kuhn, Reitz, and Abram (2009), comprehensive research has been conducted within the last two decades to provide insight into the safety of different feeding approaches that are currently utilized by HIV-positive mothers. By blending the most recent research findings with a consideration for the culture within which HIV-positive women exist, Kuhn et al. (2009) found in their meta-analysis that the best protocol by which an HIV-positive mother might most effectively reduce the risk of HIV transmission is exclusive breastfeeding (EBF) for six months. Antiretroviral therapy can also contribute to a decreased rate of transmission (Kuhn et al., 2009). Mixed feeding, or the practice of feeding a baby breast milk in conjunction with other food-based fluids or nonhuman milk, was found to be associated with high rates of transmission (Kuhn et al., 2009). Preceding the advent of the HIV pandemic, human nature set the precedent for cultural expectations of mothers' obligation to breastfeed; however the discovery of HIV transmission through breast milk in the late 1980s lead to a disturbing conflict of interest (Kuhn et al., 2009). Kuhn et al. (2009), through consideration of such cultural precedents, acknowledge the cultural infeasibility of simply advising against the practice of breastfeeding, embrace the findings of more recent research, and subsequently fervently encourage the practice of EBF among HIV-positive mothers. Despite the documented suggestion of EBF for decreasing the incidence of HIV transmission, Kuhn et al. (2009) acknowledge the reality that, on a structural level, a majority of the HIV programs that are currently available to mothers in resource-limited settings are uncertain of strategies to best support EBF, and this uncertainty results in a deficit of successful interventions (Kuhn et al., 2009).

Similar to the suggestions and context provided by Kuhn et al., Anderson and Cu-Uvin (2009), emphasize the importance of tailoring breastfeeding practices, embracing EBF,

developing approaches to education, and realizing the barriers that exist in resource-poor settings. The World Health Organization has introduced a policy of avoidance of breastfeeding among HIV-positive mothers only if it is affordable, feasible, acceptable, safe, and sustainable ("HIV," 2009). These limits set significant barriers in a resource-poor setting. Anderson and Cu-Uvin (2009) determined that formula feeding in such settings is actually associated with the same risk of infant mortality and HIV infection as the practice of breast-feeding at 18 months of age. This high occurrence of death is related to absent immunologic benefits of breast milk, unsanitary water supplies and formula preparation practices, and the inaccessibility of reliable sources of formula ("HIV," 2009). The best protocol for HIV-positive mothers to follow is demonstrated to be exclusive breastfeeding followed by complete cessation at six months or when a safe and adequate diet can be provided; however, in a resource-limited setting, the timing of complete cessation may be difficult to determine or control (Anderson & Cu-Uvin, 2009). Anderson and Cu-Uvin (2009) also indicate that, within the stigmatic culture of African society, many HIV-positive mothers are actually uninformed of their HIV status during the time of active breastfeeding and that this reality must be acknowledged and prioritized as means by which to control and minimize the incidence of vertical HIV transmission. The issue of lack of awareness of HIV status contributes to and even precedes the issue of a lack of means by which to implement proper breastfeeding practices.

In their 2007 study regarding protocols for the implementation of safer breastfeeding practices, Piwoz et al. (2007) support the practice of EBF and emphasize the necessity of developing strategies for education and counseling intervention. This study examined the association between the extent of a mother's exposure to an educational intervention and the incidence of vertical transmission that occurred through breastfeeding. This study not only targeted HIV-positive mothers, but also mothers of unknown HIV status because the investigators

acknowledge the reality that, in Africa, a majority of mothers do not know their HIV status. Furthermore, the investigators discuss the concept that true public health policy must reach beyond the minority of mothers who are aware of their status and into the culture surrounding these individuals (Piwoz et al., 2009). Results of the study determine that post-intervention mothers – regardless of their status – were more likely to breastfeed exclusively and therefore decrease the infant's risk of HIV infection (Piwoz et al., 2009). In the case of mothers exposed to both print and video education, the likelihood of transmission was decreased by 79% (Piwoz et al., 2009). Limitations to the study, such as inability to randomize, are discussed in detail; however, such limitations were determined to not have a substantial impact on the significance of the data. The inverse relationship between increased exposure to education materials and a decreased incidence of transmission was therefore maintained. These data support the suggestion that deficient education significantly contributes to the risk of HIV transmission and has major implications for the potential value of education interventions.

Recommendations

All of the evidence-based research reviewed for this report supports the practice of exclusive breastfeeding (EBF) for six months for HIV-positive mothers and indicates the need for education efforts. This unanimity provides excellent guidance for addressing the predicament that HIV-positive mothers face, but also indicates that there is a clear disconnect between evidence-based findings and the application of these practices. Evidenced based educational strategies to support EBF practices are clearly lacking, particularly for women most at risk who lack resources. Research is needed to identify learning strategies that would incorporate cultural perception, grassroots interventions, HIV status awareness, and overall structural considerations.

Barriers to effective education efforts exist on cultural, infrastructural, and personal levels. HIV-positive mothers live within a context of a

greater culture that dictates much of the success of efforts to support their EBF practices. Educational programs must target men and older women outside of the immediate culture of HIV-positive mothers because these two groups strongly influence the culture surrounding the personal breastfeeding choices made by HIV-positive mothers (Holmes & Savage, 2007). Poor infrastructure, lack of resources, and ill-functioning health care systems also contribute to the barriers of effective breastfeeding education. Grassroots efforts often successfully tackle the clumsiness of ineffective infrastructure and the obstacle of cultural adversity. Piwoz et al. (2007) found that group education alone can increase positive infant outcomes. The addition of a grassroots group education component to an education intervention could therefore significantly increase effectiveness without requiring substantial infrastructure or funding.

On the more intimate and individualized level of personal barriers to education regarding appropriate breastfeeding, knowledge of HIV status is vital to the success of any educational intervention (Anderson & Cu-Uvin, 2009). Encouraging any childbearing couple to get tested for HIV in the initial stage of any educational intervention is a major component of a nurse's care of any pregnant or nursing mother in any setting, but particularly in those settings where HIV infection rates are high. In lieu of a nurse's role, it is clear that a multidisciplinary approach – from medicine, nursing, and public health to legislative bodies, cultural leadership, and non-governmental organization involvement – is necessary to appropriately intervene and adequately implement a system that would most effectively minimize barriers to breastfeeding education and HIV stigma (Anderson & CU-Uvin, 2009). Additional research that builds on the study conducted by Piwoz et al. may identify strategies to guide health care providers in their provision of effective education, interventions, and supportive care of HIV-positive breastfeeding mothers in resource-limited settings.

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