

Review

Not peer-reviewed version

Understanding the Intersections of IPV and HIV and Their Impact on Infant Feeding Practices: A Narrative Literature Review

[Manal Abed Elkahlik Fseifes](#) * and [Josephine Etowa](#)

Posted Date: 5 September 2023

doi: 10.20944/preprints202309.0217.v1

Keywords: HIV; intimate partner violence; childbearing; infant feeding practices



Preprints.org is a free multidiscipline platform providing preprint service that is dedicated to making early versions of research outputs permanently available and citable. Preprints posted at Preprints.org appear in Web of Science, Crossref, Google Scholar, Scilit, Europe PMC.

Copyright: This is an open access article distributed under the Creative Commons Attribution License which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Article

Understanding the Intersections of IPV and HIV and Their Impact on Infant Feeding Practices: A Narrative Literature Review

Manal Fseifes ^{1,*} and Josephine Etowa ²

¹ School of Nursing, Faculty of Health Sciences, University of Ottawa, Ontario, Canada

² Black Women's HIV Prevention and Care, School of Nursing, Faculty of Health Sciences, University of Ottawa, Ontario, Canada

* Correspondence: mfsei072@uottawa.ca

Abstract: Intimate partner violence (IPV), particularly sexual and emotional violence, against Black mothers who acquire human immunodeficiency virus (HIV) during childbearing age is a significant health and social concern worldwide requiring targeted interventions and precautions. IPV against women increases the chances of early mixed feeding, putting infants at high risk of mother-to-child transmission of HIV and increased infant morbidities. Although violence complicates many Black mothers' lives, there is limited research evidence about the critical intersections of violence, HIV, and Black motherhood. Women's fears associated with IPV make them less likely to disclose their positive HIV status to their partners which subsequently prevents them from using the recommended guidelines for safe infant feeding practices. This review aims to explore the critical intersections between IPV and HIV and the impact of both on the infant feeding practices of Black mothers living with HIV. Furthermore, the theme of IPV and how it overlaps with other factors such as HIV-positive status and gender dynamics to compromise the Black motherhood experience are the focus of this narrative review of existing literature. Understanding the intersection of IPV and other factors influencing infant feeding practices among women living with HIV will help inform programming and policy interventions for HIV-positive Black mothers who may be experiencing IPV during the perinatal period.

Keywords: HIV; intimate partner violence; childbearing; infant feeding practices

Introduction

Intimate partner violence (IPV) is a rising health issue in the public health sector globally. It involves harassment, physical violence, emotional violence, sexual violence, and psychological assault that may include coercive tactics by an intimate partner, either current or former [1]. According to estimates, the IPV epidemic affects one-third of women worldwide [2]. IPV can limit a person's ability to obtain sexual healthcare and increase their risk of contracting human immunodeficiency virus (HIV) and other sexually transmitted infections (STIs) [3].

HIV is an infection that attacks the body's immune system, and it weakens a person's immunity against infections, such as tuberculosis and fungal infections. A growing body of literature has confirmed a positive relationship between IPV and HIV [4] concluding that IPV is a risk factor for acquiring HIV [5,6].

While African American women comprise only 13.4% of the U.S. female population, they represented 42% of the new HIV diagnoses in 2018 and accounted for 64% of U.S. HIV cases among women. In addition, African American women have a high HIV infection rate – 28 times higher than Asians and 15 times higher than White females [7]. The majority of those who become infected are women in heterosexual relationships, with most being infected by their primary partner [8].

Black Canadians make up about 5% of the country's total population, but in 2019, Black women and men accounted for 42% and 18% of reported new HIV cases among all women and men respectively [9]. Overall, Black people account for one of every four new diagnoses yearly. Moreover, Black people are more likely than their White counterparts to die from HIV-related causes [10].

Research on women's HIV risk and the experiences of emotional and economic intimate partner violence (IPV) are rarely taken into account [6]. IPV most frequently takes the form of emotional abuse but despite being the most frequent kind of violence suffered by women, emotional violence (EV) has been largely overlooked [11,12].

The risk of acquiring HIV increases with the degree of trauma, such as with the vaginal lacerations and abrasions that often develop when marital rape occurs [13]. Sexual violence, including rape, can interfere with women's ability to access treatment and care, sustain adherence to antiretroviral therapy, and adopt recommended infant-feeding choices [14]. One interesting piece of research discussed that women with a history of IPV develop psychological trauma, which makes them less likely to advocate for safe sex and leads to increased HIV vulnerabilities [15].

There are critical intersections within the context of IPV and HIV among Black women, and these are reinforced by mutual risk factors such as poverty, race, gender roles, lower socio-economic status, young age, unemployment, cultural norms, etc. [16–18]. IPV against Black women living with HIV is very prevalent and affects their ability to make good decisions such as adherence to optimal breastfeeding practices [19].

These optimal feeding practices are detailed in the 2016 WHO guidelines on infant feeding and include that “mothers living with HIV should breastfeed for at least 12 months ... while being fully supported for ART adherence.” Also, “Mothers known to be HIV-infected ... should exclusively breastfeed their infants for the first six months of life, introducing appropriately complimentary feeds thereafter and continue breastfeeding.” [2].

The fear of IPV, which may happen due to their partner finding out about their HIV status, increases the possibility of early mixed feeding, thereby exposing the infant to the danger of mother-to-child (vertical transmission) of HIV [20,21]. Similarly, it has been confirmed that maternal exposure to IPV is associated with suboptimal breastfeeding practices [22,23]

Besides their feeding practices being negatively affected by IPV, Black women are very likely to face life-threatening, lethal injuries and homicides [24,25]; have their children separated from them [26], experience social stigma [27]; be at higher risk of acquiring HIV and other sexual diseases [28]; have low confidence and self-esteem [29]; become incarcerated [26]; engage in substance abuse activities [30]; and have an increased likelihood of mother-to-child HIV transmission as a result of early mixed feeding [31].

To advance the current understanding of the critical intersection between Black women living with HIV, IPV, and motherhood including child-feeding practices, this narrative literature review critically appraises relevant recent literature. It examines the experiences of IPV and HIV among Black women specifically in the context of infant feeding.

Methods

This is a narrative review of literature from the field. Five electronic databases, including Google Scholar, ScienceDirect, Scopus, ResearchGate, and PubMed, were systematically searched to obtain English publications from the last ten years (2012–2022) pertaining to intimate partner violence (IPV) outcomes against Black women and its associated risks of the human immunodeficiency virus (HIV) and the effect of both HIV and IPV on infant sub-optimal feeding practices. We used thematic mapping methods to analyze and synthesize extracted data from the selected articles to create the main themes that have been outlined below. Etowa et al described thematic mapping in literature review as a process whereby data extracted from individual articles are initially coded and then categorized together in similar groups. This is followed by further analysis and synthesis of all groups to yield the final main themes [32].

Findings

The main themes for this narrative review are as follows:

- 1) IPV against women
- 2) HIV among Black women

- 3) IPV and HIV-positive Black women
- 4) Intersections of IPV, HIV, and feeding practices among Black women

1. Intimate Partner Violence (IPV) against Women

IPV is well recognized as a global health problem that violates human rights and female partners are significantly more likely than males to experience all forms of it [33]. Also known as domestic violence, IPV encompasses physical violence, emotional abuse, sexual violence, psychological harm, verbal abuse, stalking, and reproductive coercion by a current or former partner. IPV comprises one person exerting control over the other individual in the relationship. Lack of control impacts women's lives in many ways including their ability to negotiate safe sex practices such as the use of condoms and infant feeding practices [34].

Globally, 10 to 69% of women have disclosed that they have experienced physical abuse by an intimate partner at least once in their lives [35]. However, these numbers are underestimated as many IPV incidences go unreported [36,37]. Intimate partner violence is thought to have affected 27% of ever-partnered women between the ages of 15 and 49 worldwide. Adolescent girls and young women are particularly affected by IPV, which affects 24% of women aged 15-19 years and 26% of women aged 20-24 years [38]. This shows that IPV is a significant worldwide health problem associated with decreased adherence to HIV treatment and prevention strategies among women, specifically those of pregnancy and childbearing age [22,39].

A recent systematic review of 12 studies reported the prevalence of IPV among pregnant women. The results showed that 1.6–78% of women experienced physical IPV and 1.8–67.4% experienced psychological IPV during pregnancy [40]. A previous systematic review of 13 studies on IPV prevalence in Africa stated that 2–57% of women experience some kind of IPV during pregnancy. Emotional violence was most prevalent among 41–49%, physical violence was in the range of 22.5–40%, and sexual violence was in the range of 2.7–26.5% [41]. Exposure to IPV during pregnancy can negatively affect adherence to recommend feeding practices after childbirth [22].

Various studies have demonstrated that women who experience IPV have a greater chance of acquiring HIV [42–44]. Moreover, considering the knowledge, attitudes, and behavioral practices of HIV positive mothers, it has been observed that mixed feeding practices are more common than exclusive breast feeding [45,46]. Lack of infant feeding counselling, concern over HIV transmission through breast milk, returning to work, and nursing challenges are the biggest obstacles to HIV-positive mothers practicing exclusive breastfeeding in the first six months [47]. Infant feeding counselling and suggestions from partners and family are the key variables affecting HIV-positive mothers' choices for infant feeding [48].

The current global health goals include improving infant survival rates and preventing HIV transmission from mothers to their children (PMTCT). Sub-optimal infant feeding practices are high among HIV-exposed infants [49]. HIV can be transmitted from a mother to her child during pregnancy, labor, delivery, or during breastfeeding [50] for various reasons such as social determinants factors.

Efforts have been made to address these challenges and promote optimal infant feeding practices among HIV-exposed infants. Programs and interventions that provide comprehensive medical attention and specific medication to HIV-positive mothers can contribute to better adherence to recommended feeding practices. Major advancements have been made in the last two decades in the fight against HIV transmission from mothers to their children through the program known as prevention of mother-to-child transmission (PMTCT) [51]. For HIV-positive pregnant women, the World Health Organization (WHO) has recommended certain antiretroviral drug combinations, and once established on these, women can and should breastfeed. For example, Zidovudine (AZT) is antiviral medication that is used to reduce the risk of mother-to-child transmission of HIV during pregnancy, labor, and delivery. It can be administered to HIV-positive pregnant women to reduce the viral load and the likelihood of transmitting the virus to the infant. Also, lamivudine (3TC) is an antiviral medication and can be used as part of antiretroviral regimens for pregnant women with HIV

to reduce the risk of transmitting the virus to their infants during pregnancy, labor, and breastfeeding [52].

HIV- positive women need to consistently adhere to their antiviral medication regimen to be able to breastfeed without complications. However, women who are experiencing IPV may face challenges to their adherence. Fear, stress, and disruptions caused by abusive behaviors can make it difficult to prioritize medication adherence [53]. Therefore, despite advances such as the PMTC program, IPV has the potential to negatively influence how children are fed [54] and IPV exposure can have serious negative effects on a mother's and child's health [55].

To illustrate, we look at an investigation of a cross-sectional aspect that was carried out using the Ethiopian Demographic and Health Survey (EDHS) 2016 data. All of the child-mother pairs from Ethiopia's various regions who took part in the EDHS 2016 were considered for inclusion. 1307 observations were included in the study. Mothers were on average 29 years old, children were on average 14 months old, and 32% of women reported experiencing IPV. Of the children, 8% had a minimum wholesome diet in which they receive essential nutrients, energy, and hydration to support overall health and well-being, 15% had a minimum dietary diversity (diet from four or more food groups out of the seven food groups during the previous day), and 43% had a minimum number of meals each day (infant who is breastfed should receive two or more daily feedings of solid, semi-solid or soft foods). Violence in intimate relationships reduces a child's minimum permissible diet by 65%. The minimal permissible diet was also influenced by the caregiver's completion of secondary education, their employment status, and their desire for children [56].

In addition, to assess the relationships between IPV and breastfeeding habits and a mother's mental health, we examined a study whose primary objective was to identify risk factors for IPV during pregnancy and the postpartum period in Bangladesh. It was a cross-sectional study of 2000 women from four districts of Bangladesh with children under six months old. Among 28% of mothers, high levels of common mental disorders (CMD) were observed, and 49.7% of mothers had suffered violence in the previous year. Only 54% of mothers said that they had started nursing early, and 64% said that they exclusively breastfed. Living in food-insecure families, having poor socioeconomic positions, having little autonomy, or being less educated than their spouses increased the likelihood that women would encounter IPV. Women who had experienced IPV were 2-2.3 times more likely to experience severe CMD and 28-34% less likely to exclusively breastfeed their children [57].

2. HIV among Black Women

It is clear that despite advances in policies, programs, and treatments, HIV remains a significant global health issue, and certain populations, including Black women, continue to be disproportionately affected by the virus. Black women face a higher burden of HIV compared to other demographic groups. According to the Centers for Disease Control and Prevention (CDC) in the United States, Black women accounted for the majority of new HIV diagnoses among women in 2018 [7]. Sub-Saharan Africa is heavily impacted by HIV, and within that region, Black women face a higher risk due to various social, economic, and cultural factors [58]. HIV prevalence per 100 000 individuals is 800.9 among women who identify as Black compared with 45.3 among White women [7]. African American Black women are at a 15 times higher risk of acquiring HIV than White American women. Furthermore, HIV-related illnesses are among the leading causes of death for Black women at the reproductive age between 29 and 34. Multiple risk factors contribute to the epidemic among Black women, including higher rates of poverty, lack of access to proper health care services, higher rates of some sexually transmitted infections, lack of awareness of HIV status, and social stigma [59].

In the immigrant context, discrimination, stigma, and systematic barriers all are significant factors that prevent women from knowing the importance of getting tested, seeking more information on prevention and treatment options, and disclosing their status. HIV-related stigma and discrimination can prevent women from seeking testing, treatment, and support services. Fear of

disclosure, judgment, or rejection may lead to delayed diagnosis and reduced adherence to treatment, impacting overall health outcomes [60,61].

In their study, Nydegger et al. found that engaging in behaviors with a higher risk of HIV transmission, such as unprotected sex, having multiple sexual partners, and substance abuse, can contribute to the higher HIV prevalence among Black women [62]. Also, gender inequality including gender-based violence, power imbalances in relationships, and cultural norms, can compromise women's ability to negotiate safer sex practices, access prevention methods like condoms, or have control over their sexual health decisions.

Cultural beliefs associated with HIV and feeding practices have been investigated in the context of immigrant Black women. Many researchers have studied how Black women living with HIV sustained their cultural beliefs about infant feeding upon migrating to Canada, and that the desire to breastfeed was a mutual existential perception shared by Black women, including those living with HIV [58]. For example, Greene et al., found that Black women, including those living with HIV, said that breastfeeding was inseparable from their maternal role [63]. Suffering from guilt resulting from breast feeding avoidance toward their infants was articulated in the study. "Good mothers" who breastfeed versus "bad mothers" who do not breastfeed was a shared belief that was expressed in the same study.

In the same context, Leshabari et al. quoted a Tanzanian mother in their study as saying, "A real mother should breastfeed her child," indicating that the term "bad mother" is used to describe women who are not breastfeeding their infants [47]. A positive perception towards breastfeeding was also considered critical to a baby's wellbeing through strengthening physical and spiritual bonds between mothers and their infant [64].

Social expectations also play a critical role in affecting Black women's decision not to breastfeed [65]. These aspects create high levels of guilt and stress for Black women as they feel they cannot meet their families' and societies' expectations. As such, infant feeding practices among Black mothers must be understood via their sociocultural contexts, with due consideration given to cultural beliefs and gender roles. Infant feeding is not simply a physiological process but it is also an emotional, psychological, social, and cultural process for women.

Nearly half of the total HIV cases in the world are women of child-bearing age [58]. As a result of concerted worldwide efforts, the number of new child HIV infections dropped by approximately 40% between 2003 and 2011[66]. A global objective was determined to eliminate the mother-to-child transmission (MTCT) of HIV in which a break in the vicious cycle of HIV transmission to newborns was prioritized [67]. In 2011, a global plan to eliminate all new HIV infections among children by 2015 and keep their mothers alive was launched [68]. This plan is consisted of four components of the comprehensive prevention of MTCT program namely: (1) primary prevention of HIV infection among women during their perinatal period; (2) prevention of unintended pregnancies among HIV positive mothers; (3) prevention of MTCT; and (4) providing appropriate care to mothers living with HIV and their infants, children and families [69]. Ultimately, this plan reduced pediatric infection by almost 90% and decreased MTCT to less than 5% worldwide by 2015 with special attention to the 22 sub-Saharan African countries that represent almost three quarters (69%) of the 23.5 million people infected in the world [70].

3. IPV and HIV-positive Black Women

The intersection between IPV and HIV has been well recognized globally [71,72] and for Black women specifically [25,28,73]. Previous studies reveal that IPV has been linked with HIV acquisition [74,75]. For Black women in a current abusive relationship, HIV testing and subsequent disclosure of HIV-positive status to a partner and family can increase the risk of partner abuse [76,77]. IPV has also resulted in a lack of contraception use and HIV acquisition [79,80].

Furthermore, HIV care engagement is disproportionately affected by mental health disorders, which are in turn frequently associated with IPV. Mental health disorders include IPV trauma, post-traumatic stress disorder (PTSD), and depression [81]. IPV has been linked with suboptimal HIV treatment outcomes such as antiretroviral therapy (ART) discontinuity [82], poor ART adherence

[53], and lack of viral suppression among women [83]. The social stigma, fear, and trauma of an HIV diagnosis have been recognized as barriers for abused Black women to obtaining medical care [84].

Many studies have documented that HIV-positive women are more likely to experience IPV than other women [85,86]. IPV can also weaken the woman's ability to disclose her HIV-positive status, especially during the postpartum period [87]; and negatively affect her ability to choose the proper infant feeding method to prevent mother-to-child (vertical) transmission of HIV [31].

IPV increases the spread of HIV to Black women, exposing the women, their offspring, and their families to various dangers [17]. HIV and intimate partner violence (IPV) afflict Black and Latina women disproportionately [87]. For these women, HIV and IPV are molded by gender, race, ethnicity, religion, and other cultural variables [28]. For Black women, the complex interplay between HIV and IPV is experienced within a unique setting shaped by gender, ethnicity, religion, race, and other cultural norms and beliefs. As a result of being at the intersection of multifaceted forms of oppression, Black women are more likely to experience adverse health outcomes [88].

As a result of IPV, Black women are very likely to face life-threatening, lethal injuries, homicides and negative health outcomes. IPV has far-reaching effects, including financial and societal expenses as well as a detrimental effect on women's health outcomes [25]. Applying information collected by the Missouri Behavioral Risk Factor Surveillance System (BRFSS) in 2005, research examined certain health risk factors including high cholesterol, high blood pressure, and obesity as well as health behaviors like smoking, binge drinking, and inactivity associated with IPV as moderators (demographic markers) [24].

IPV severity and all-cause mortality among HIV-positive women were examined in an independent investigation. Women Living with HIV (WLHIV) reported the age-standardized all-cause death rates by IPV severity and the lifetime prevalence of IPV. The findings showed that women experiencing lifetime IPV had the highest rates of mortality [89].

A study was done to highlight the experiences of women who constantly worry about experiencing intimate partner violence (IPV) which leaves them open to contracting uncontrollable HIV. An unprecedented amount of intimate partner violence is being experienced by South African women, putting them at risk of catching HIV from their partners. Ten study participants—some of whom are married and others who are cohabiting with their partners—were interviewed as part of a qualitative research process. Four themes emerged from the analysis: coercive sexual practices, condom misuse, physical violence due to disagreements over intimate relations, and physical violence as a result of condom use. Addressing IPV is challenging since victims must report it [90].

4. Intersection of IPV, HIV and Breastfeeding Practices among Black Women

The intersection of IPV, HIV, and breastfeeding practices among Black women is a complex and multifaceted issue that requires a comprehensive understanding of the various factors involved. This intersection brings to light several important considerations that need to be highlighted and addressed adequately by culturally sensitive interventions.

IPV among Black women living with HIV continues to be a barrier to status disclosure to their partners [76,77]. Fear of violence, stigma, and other potential repercussions hinders open communication. This lack of disclosure may affect child feeding practices as women may not feel comfortable discussing their HIV status and the associated risks with their partners or their extended families [77]. Nonetheless, in terms of the law of some jurisdictions, HIV positive status disclosure to intimate partners is mandatory. This law places the responsibility on individuals living with HIV to disclose their status before engaging in sexual activities. In some cases, such laws imply that if a woman fails to disclose her positive HIV status to her partner, healthcare providers are obligated to share this information with her husband or partner. However, this raises questions about patient confidentiality, medical ethics, and the potential consequences of such disclosure.

Despite the laws, lack of status disclosure due to fears of violent repercussions continue to affect the feeding practices of many HIV-positive Black women. However, breastfeeding without correct medication compliance poses a great risk of the mother transmitting the virus to her infant. This makes IPV an HIV-transmission-associated factor among Black women.

Black women facing IPV may find it challenging to negotiate safe feeding options, such as formula feeding, due to partner control, lack of autonomy, or limited access to resources like clean water and formula. Also, disruptions in feeding practices occur in various ways. Abusive partners may undermine the breastfeeding efforts of women on HIV medication; they may manipulate or control feeding choices; or cause interruptions in breastfeeding due to physical violence or emotional stress. These disruptions can result in inconsistent feeding patterns, premature weaning, or a reliance on suboptimal feeding methods [31].

On top of this, Black women experiencing IPV and living with HIV may face challenges in accessing support and resources for good feeding practices. Barriers can include limited healthcare access, lack of information about HIV transmission risks, and a lack of support systems. To address these barriers, the provision of adequate support services such as healthcare providers who are knowledgeable about IPV and HIV, breastfeeding counseling, and safe housing options, is essential.

Furthermore, HIV-positive Black women experiencing IPV may face severe mental health challenges such as depression, anxiety, and trauma. These issues often negatively impact feeding practices as they may affect a woman's ability to bond with her infant, engage in nurturing behaviors, or maintain the emotional well-being necessary for successful breastfeeding [64].

IPV poses significant safety risks to women and their children, and Black women are disproportionately affected. In situations where IPV is present, breastfeeding may be further complicated by concerns for the safety and well-being of the mother and child. These safety considerations may influence decisions around infant feeding practices.

Efforts to address these problems should involve collaboration among healthcare providers, social services, and community organizations. Integrated interventions that address IPV, HIV, mental health, and breastfeeding support are essential to ensure the well-being of Black women and their infants in these complex situations.

Discussion and Implication

Intimate partner violence against HIV-positive women significantly increases the probability of early mixed feeding. Thus, it is essential to discuss infant feeding in the context of HIV to ensure that HIV-positive women are aware of the advantages of exclusively nursing for six months provided they're on HIV treatment. Early mixed feeding in infants was significantly predicted by MTCT ignorance about the advantages of breast milk. Various studies have expanded the body of data suggesting that adequate information on HIV and breastfeeding, delivered through the health care system, is essential for continued exclusive breastfeeding (EBF) in HIV-positive women [91,92].

A study examined the relationship between mothers who had suffered IPV during pregnancy and after giving birth, and their breastfeeding practices. In the imputed analysis, mothers who experienced IPV had a 26% lower likelihood of practicing EBF compared to mothers who did not. Additionally, a unit dose of maternal IPV exposure was linked to a 5% lower chance of EBF. Furthermore, psychological IPV was linked to a 34% lower likelihood of EBF practice, whilst physical IPV was linked to a 37% lower likelihood [93].

In a Columbian study, although there was no correlation between indices of breastfeeding and violence against pregnant women, there were still significant public health problems. These included inadequate breastfeeding practices and a high prevalence of violence towards partners. As a result, IPV caused newborns to have less-than-ideal feeding opportunities [94].

In Lusaka, a study in 2014 aimed to ascertain how safe baby feeding practices were impacted by IPV against HIV-positive women. 320 married postpartum mothers were asked to participate in a cross-sectional face-to-face study at a sizable public health facility. Results indicated that IPV towards HIV-positive women, specifically emotional and sexual abuse, increases the possibility of early mixed infant feeding, which raises the risk of HIV transmission from mother to child as well as other infant morbidity causes for newborns [31].

As we have established, current global health goals include improving infant survival rates and preventing HIV transmission from mothers to their children (PMTCT). However, sub-optimal infant feeding practices is high in the HIV prevalence settings [49]. HIV from a mother to her child can be

transmitted during pregnancy, labor, delivery, or during breastfeeding if the mother is not established on ART [50]. The PMTCT program has brought improvements in the war against HIV transmission from mothers to their children [51]. The WHO's antiretroviral drug combinations (HAART) have been a huge breakthrough. HAART's main goal is to suppress the replication of the HIV virus, reduce the viral load in the body, and maintain the mother's health while minimizing the risk of mother-to-child transmission of HIV. HAART involves the use of a combination of antiretroviral drugs from different classes, usually consisting of at least three drugs. The particular drug combinations may vary based on factors such as the woman's health status, viral load, potential drug interactions, and regional treatment guidelines. The choice of drugs intends to achieve optimal viral suppression, minimize the risk of drug resistance, and improve maternal and infant health outcomes. In this context, it's important for HIV-positive pregnant women to work closely with their healthcare providers to determine the most appropriate antiretroviral regimen based on their specific circumstances and the latest treatment guidelines from reputable sources like the World Health Organization or their national health authorities.

Globally, PMTCT has different effects because of an imbalance in health resource sharing. In high-income countries, rates of HIV being passed from mother to child (MTCT) have dropped to less than 1% [95]. Only 44 HIV-positive babies were born in the U.S in 2016 at a rate of about 1.1 per 100,000 live births [96]. In contrast, although China's PMTCT for HIV program was launched in 2003, the MTCT rate was still as high as 5.7% in 2016 [97].

One of the most effective HIV/AIDS programs in the world is in Burkina-Faso, a country in west Africa. It has treatment outcomes comparable to those of wealthy nations. Guidelines for PMTCT in Burkina Faso were updated in 2004, 2006, and 2010 after first being implemented in 2000. According to a study, PMTCT reduced the incidence of HIV transmission from 10.4% in 2006 to 0% in 2015. The PMTCT program is still the best option for treating pregnant HIV-positive mothers and their infants. The present PMTCT policy is supported by data showing that participation of male partners has been linked to women completing PMTCT [51].

China has also focused on the effect of PMTCT to overcome the vertical transmission of HIV from mother to child. In Suzhou, the PMTCT program was implemented and assessed from 2011 to 2017. In all, 107 HIV-positive women were recruited for the program; 11 of them received their diagnosis during premarital testing, while the remaining 96 received their diagnosis during pregnancy. 67 of the 96 pregnant mothers delivered 68 live newborns. HIV positive mothers were not included in the PMTCT program until after giving birth and just one infant was found to be HIV-positive. Suzhou's HIV prevalence trended toward a low level [98]. The PMTCT program against HIV was made public in China in 2003, however, in the study, 857 mothers and their 899 children were examined. Results have shown that the overall MTCT rate remains comparatively high [97].

The World Health Organization (WHO) lists four conditions as a method to stop PMTCT of HIV, namely, guarding against HIV infection by providing testing, treatment, and counseling to all pregnant women; preventing unexpected pregnancies in HIV-positive women; supporting and treating HIV-positive women and their families; and preventing unwanted pregnancies in reproductive-age women [99].

Addressing the intersection of IPV, HIV, and breastfeeding practices among Black women requires a holistic approach. It involves providing culturally sensitive support, comprehensive healthcare services, and addressing the social determinants of health. Developing comprehensive support systems that address the intersecting needs of Black women experiencing IPV, living with HIV, and making feeding choices is crucial. This support should include access to healthcare, counseling, legal assistance, and social services that are culturally sensitive and trauma-informed. This can include raising awareness about IPV and HIV, promoting accessible and non-judgmental healthcare services, improving healthcare infrastructure, enhancing support systems, and implementing policies that prioritize the well-being and autonomy of Black women.

Additionally, community engagement, education, and empowerment initiatives that challenge gender norms, reduce stigma, and promote equitable relationships can play a crucial role in addressing these intersecting issues. By addressing the underlying structural and societal factors that

contribute to IPV, HIV, and breastfeeding challenges, we can work towards better outcomes for Black women and their families. This will also contribute to empowering Black women with knowledge about IPV, HIV, and feeding practices. Education should focus on providing information about HIV transmission risks, available resources, and safe feeding options. It should also address the importance of autonomy, self-care, and self-advocacy.

Conclusion

This comprehensive narrative review of existing works at the intersection of IPV, HIV, and motherhood in the context of infant feeding practices among Black women contributes to knowledge to advance a more holistic healthcare care for this population in Canada and beyond. The evidence generated can inform programing and policy interventions for Black women to advocate for and support their health (and that of their families), autonomy, and overall well-being.

The critical convergence of IPV, HIV, and motherhood is not commonly discussed especially in the context of Black women living with HIV who are already experiencing the double-jeopardy of the disproportionately higher HIV burden and other inequities related to the social determinants of health. It is vital for HIV interventions – especially those seeking to prevent vertical transmission – to use a multi-pronged approach to address the multi-level factors that contribute to HIV vulnerabilities. For example, PMTCT programs should prioritize interventions aimed at identifying women in abusive relationships and offer suitable counselling and referrals among HIV-positive women. This will improve best practices for infant feeding and help prevent the spread of HIV from mother to child.

IPV against HIV-positive mothers is a major factor influencing adherence to best practices for infant feeding. Adherence to prolonged exclusive breastfeeding is significantly impacted by physical and mental abuse in particular. In addition, HIV-positive women who experience IPV often suffer from psychological and behavioral disorders that affect safe infant feeding practices as such mothers maybe more inclined to initiate early mixed feeding practices. This highlights the complexity of the intersections of IPV and infant feeding practices among Black women living with HIV.

Credit Authorship Contribution Statement: MF proposed this idea and drafted the initial manuscript and writing the manuscript. JE helped in conceptualizing the ideas, reviewing and editing the manuscript for overall quality improvement. and the overall quality of the manuscript.

Consent to Participate: Corresponding and the co-author willingly participated in the development and submission of this manuscript.

Funding: The authors declare that no funds, grants, or other support were received for this literature review and the preparation of the manuscript.

Competing Interests: The authors have no relevant financial or non-financial interests to disclose.

Ethical Approval: This article is based on a literature review of studies and does not contain any studies with human participants or animals performed by any of the authors.

Informed Consent: For this type of study, formal consent is not required.

Data Availability: Even though adequate data has been given in the form of tables and figures, however, all authors declare that if more data is required then the data will be provided on a request basis.

Acknowledgment: The co-authors are thankful to the University of Ottawa for providing the resources necessary to complete this literature collection and article.

Conflict of Interest: The authors declare that they have no conflict of interest.

References

1. Eggers del Campo, I.; Steinert, J. I. The Effect of Female Economic Empowerment Interventions on the Risk of Intimate Partner Violence: A Systematic Review and Meta-Analysis. *Trauma, Violence, & Abuse* **2022**, *23* (3), 810-826. DOI: 10.1177/15248380211070862
2. World Health Organization. Guideline: Updates on HIV and Infant Feeding; The Duration of Breastfeeding, and Support from Health Services to Improve Feeding Practices among Mothers Living with HIV; World Health Organization: Geneva, 2016.
3. Gilbert, L.; Stoicescu, C.; Goddard-Eckrich, D.; Dasgupta, A.; Richer, A.; N. Benjamin, S.; El-Bassel, N. Intervening on the Intersecting Issues of Intimate Partner Violence, Substance Use, and HIV: A Review of Social Intervention Group's (SIG) Syndemic-Focused Interventions for Women. *Res. Soc. Work Pract.* **2022**, *10497315221121807*.
4. Kapiga, S.; Harvey, S.; Mshana, G.; Hansen, C. H.; Mtolela, G. J.; Madaha, F.; Watts, C. A Social Empowerment Intervention to Prevent Intimate Partner Violence against Women in a Microfinance Scheme in Tanzania: Findings from the MAISHA Cluster Randomised Controlled Trial. *Lancet Glob. Health* **2019**, *7* (10), e1423-e1434.
5. Gibbs, A.; Dunkle, K.; Willan, S.; Jama-Shai, N.; Washington, L.; Jewkes, R. Are Women's Experiences of Emotional and Economic Intimate Partner Violence Associated with HIV-Risk Behaviour? A Cross-Sectional Analysis of Young Women in Informal Settlements in South Africa. *AIDS Care* **2019**, *31* (6), 667-674.
6. Groves, A. K.; Reyes, H.; Moodley, D.; Maman, S. HIV Positive Diagnosis during Pregnancy Increases Risk of IPV Postpartum among Women with No History of IPV in Their Relationship. *AIDS Behav.* **2018**, *22* (6), 1750-1757.
7. Centers for Disease Control and Prevention. *HIV and African American People*; U.S. Department of Health and Human Services, Centers for Disease Control and Prevention: Atlanta, 2018.
8. Centers for Disease Control and Prevention. *Slide Set: HIV Surveillance in Women*; U.S. Department of Health and Human Services, Centers for Disease Control and Prevention: Atlanta, 2018.
9. Haddad, N.; Weeks, A.; Robert, A.; Totten, S. HIV in Canada—surveillance report, 2019. *Can. Commun. Dis. Rep.* **2021**, *47*(1), 77–86. <https://doi.org/10.14745/ccdr.v47i01a11>.
10. Tjepkema, M.; Christidis, T.; Olaniyan, T.; Hwee, J. Mortality Inequalities of Black Adults in Canada. *Statistics Canada*, 2023. <https://www150.statcan.gc.ca/n1/pub/82-003-x/2023002/article/00001-eng.pdf>.
11. Jasko, K.; Webber, D.; Kruglanski, A. W.; Gelfand, M.; Taufiqurrohman, M.; Hettiarachchi, M.; Gunaratna, R. Social Context Moderates the Effects of Quest for Significance on Violent Extremism. *J. Pers. Soc. Psychol.* **2020**, *118*(6), 1165.
12. Gracia, E.; Lila, M.; Santirso, F. A. Attitudes Toward Intimate Partner Violence Against Women in the European Union: A Systematic Review. *Eur. Psychol.* **2020**, *25*(2), 104.
13. Tsuyuki, K.; Cimino, A. N.; Holliday, C. N.; Campbell, J. C.; Al-Alusi, N. A.; Stockman, J. K. Physiological Changes from Violence-Induced Stress and Trauma Enhance HIV Susceptibility Among Women. *Curr. HIV/AIDS Rep.* **2019**, *16*(1), 57-65.
14. Pemberton, J. V.; Loeb, T. B. Impact of Sexual and Interpersonal Violence and Trauma on Women: Trauma-Informed Practice and Feminist Theory. *J. Feminist Fam. Ther.* **2020**, *32*(1-2), 115-131.
15. Overstreet, N. M.; Willie, T. C.; Hellmuth, J. C.; Sullivan, T. P. Psychological Intimate Partner Violence and Sexual Risk Behavior: Examining the Role of Distinct Posttraumatic Stress Disorder Symptoms in the Partner Violence–Sexual Risk Link. *Women's Health Issues.* **2015**, *25*(1), 73-78.
16. Mitchell, J., Wight, M., Van Heerden, A., & Rochat, T. J. Intimate partner violence, HIV, and mental health: a triple epidemic of global proportions. *International Review of Psychiatry.* 2016, *28*(5), 452-463.
17. Sabri, B., Wirtz, A. L., Ssekasanvu, J., Nonyane, B. A., Nalugoda, F., Kagaayi, J., ... & Wagman, J. A. Intimate partner violence, HIV and sexually transmitted infections in fishing, trading and agrarian communities in Rakai, Uganda. *BMC public health.* 2019, *19*(1), 1-16.
18. Saxena, A., Deschamps, M. M., Dorvil, N., Christophe, I., Rosenberg, R., Jean-Gilles, M., ... & Dévieux, J. G. Association between intimate partner violence and HIV status among Haitian Women. *Global public health.* 2019, *14*(11), 1557-1568.
19. Leddy, A. M., Zakaras, J. M., Shieh, J., Conroy, A. A., Ofotokun, I., Tien, P. C., & Weiser, S. D. Intersections of food insecurity, violence, poor mental health and substance use among US women living with and at risk for HIV: evidence of a syndemic in need of attention. *PLoS one.* 2021, *16*(5), e0252338
20. Tenkorang, E. Y., Asamoah-Boaheng, M., & Owusu, A. Y. Intimate partner violence (IPV) against HIV-positive women in Sub-Saharan Africa: a mixed-method systematic review and meta-analysis. *Trauma, Violence, & Abuse.* 2021, *22*(5), 1104-1128.
21. Wudineh, F., & Damtew, B. Mother-to-child transmission of HIV infection and its determinants among exposed infants on care and follow-up in Dire Dawa City, Eastern Ethiopia. *AIDS research and treatment*, 2016.

22. Caleyachetty, R., Uthman, O. A., Bekele, H. N., Martín-Cañavate, R., Marais, D., Coles, J., ... & Koniz-Booher, P. Maternal exposure to intimate partner violence and breastfeeding practices in 51 low-income and middle-income countries: A population-based cross-sectional study. *PLoS medicine*. 2019, 16(10), e1002921.
23. Walters, C., Rakotomanana, H., Komakech, J., & Stoecker, B. Maternal experience of intimate partner violence is associated with suboptimal breastfeeding in Malawi, Tanzania, and Zambia: Insights from DHS analyses. *Current developments in nutrition*. 2019, 3(1), nzz034-P10.
24. Bosch, J., Weaver, T. L., Arnold, L. D., & Clark, E. M. The impact of intimate partner violence on women's physical health: Findings from the Missouri behavioral risk factor surveillance system. *Journal of interpersonal violence*. 2017, 32(22), 3402-3419.
25. Gillum, T. L. The intersection of intimate partner violence and poverty in Black communities. *Aggression and violent behavior*. 2019, 46, 37-44.
26. Stephens, T. N. Recognizing complex trauma in child welfare-affected mothers of colour. *Child & Family Social Work*. 2019, 24(1), 42-49.
27. Kontomanolis, E. N., Michalopoulos, S., Gkasdaris, G., & Fasoulakis, Z. (2017). The social stigma of HIV-AIDS: society's role. *Hiv/aids (Auckland, NZ)*, 9, 111.
28. Joe, J. R., Norman, A. R., Brown, S., & Diaz, J. (2020). The intersection of HIV and intimate partner violence: An application of relational-cultural theory with Black and Latina women. *Journal of Mental Health Counseling*, 42(1), 32-46.
29. Porter, S. C., & Mittal, M. (2022). Safer Sex Self-Efficacy Among Women with Experiences of Intimate Partner Violence. *Journal of interpersonal violence*, 37(3-4), NP1253-NP1274.
30. Schiff, D. M., Nielsen, T., Terplan, M., Hood, M., Bernson, D., Diop, H., ... & Land, T. (2018). Fatal and nonfatal overdose among pregnant and postpartum women in Massachusetts. *Obstetrics and gynecology*, 132(2), 466.
31. Hampanda, K. (2016). Intimate partner violence against HIV-positive women is associated with sub-optimal infant feeding practices in Lusaka, Zambia. *Maternal and child health journal*, 20(12), 2599-2606.
32. Etowa, J., Demeke, J., Abrha, G., Worku, F., Ajiboye, W., Beauchamp, S., Taiwo, I., Pascal, D., & Ghose, B. (2021). Social determinants of the disproportionately higher rates of COVID-19 infection among African Caribbean and Black (ACB) population: A systematic review protocol. *Journal of public health research*, 11(2), 10.4081/jphr.2021.2274. <https://doi.org/10.4081/jphr.2021.2274>
33. Ahmadabadi, Z., Najman, J. M., Williams, G. M., Clavarino, A. M., & d'Abbs, P. (2021). Gender differences in intimate partner violence in current and prior relationships. *Journal of interpersonal violence*, 36(1-2), 915-937.
34. Vishwakarma, D., Sharma, S. K., Kukreti, S., & Singh, S. K. (2022). Attitude towards negotiating safer sexual relations: Exploring power dynamics among married couples in India. *Journal of Biosocial Science*, 1-14.
35. Garcia-Moreno, C., Jansen, H. A., Ellsberg, M., Heise, L., & Watts, C. H. (2006). Prevalence of intimate partner violence: findings from the WHO multi-country study on women's health and domestic violence. *The lancet*, 368(9543), 1260-1269.
36. Halim, N., Beard, J., Mesic, A., Patel, A., Henderson, D., & Hibberd, P. (2018). Intimate partner violence during pregnancy and perinatal mental disorders in low and lower middle income countries: A systematic review of literature, 1990–2017. *Clinical psychology review*, 66, 117-135.
37. Coll, C. V., Ewerling, F., García-Moreno, C., Hellwig, F., & Barros, A. J. (2020). Intimate partner violence in 46 low-income and middle-income countries: an appraisal of the most vulnerable groups of women using national health surveys. *BMJ global health*, 5(1), e002208.
38. Sardinha, L., Maheu-Giroux, M., Stöckl, H., Meyer, S. R., & García-Moreno, C. (2022). Global, regional, and national prevalence estimates of physical or sexual, or both, intimate partner violence against women in 2018. *The Lancet*, 399(10327), 803-813.
39. Hatcher, A. M., Smout, E. M., Turan, J. M., Christofides, N., & Stöckl, H. (2015). Intimate partner violence and engagement in HIV care and treatment among women: a systematic review and meta-analysis. *Aids*, 29(16), 2183-2194.
40. Román-Gálvez, R. M., Martín-Peláez, S., Martínez-Galiano, J. M., Khan, K. S., & Bueno-Cavanillas, A. (2021). Prevalence of intimate partner violence in pregnancy: an umbrella review. *International journal of environmental research and public health*, 18(2), 707.
41. Shamu, S., Abrahams, N., Temmerman, M., Musekiwa, A., & Zarowsky, C. (2011). A systematic review of African studies on intimate partner violence against pregnant women: prevalence and risk factors. *PloS one*, 6(3), e17591.
42. World Health Organization. (2012). *Understanding and addressing violence against women: Intimate partner violence* (No. WHO/RHR/12.36). World Health Organization.
43. Adimula, R. A., & Ijere, I. N. (2018). Psycho-social traumatic events among women in Nigeria. *Madridge Journal of AIDS*, 2(1), 17-28.

44. Fiorentino, M., Sow, A., Sagaon-Teyssier, L., Mora, M., Mengue, M. T., Vidal, L., ... & EVOLCam Study Group. (2021). Intimate partner violence by men living with HIV in Cameroon: Prevalence, associated factors and implications for HIV transmission risk (ANRS-12288 EVOLCAM). *PloS one*, 16(2), e0246192.
45. Adejuyigbe, E., Orji, E., Onayade, A., Makinde, N., & Anyabolu, H. (2008). Infant feeding intentions and practices of HIV-positive mothers in southwestern Nigeria. *Journal of Human Lactation*, 24(3), 303-310.
46. Adeniyi, O. V., Ajayi, A. I., Issah, M., Owolabi, E. O., Goon, D. T., Avramovic, G., & Lambert, J. (2019). Beyond health care providers' recommendations: understanding influences on infant feeding choices of women with HIV in the Eastern Cape, South Africa. *International breastfeeding journal*, 14(1), 1-12.
47. Leshabari, S. C., Blystad, A., de Paoli, M., & Moland, K. M. (2007). HIV and infant feeding counselling: challenges faced by nurse-counsellors in northern Tanzania. *Human resources for health*, 5(1), 1-11.
48. Operto, E. (2020). Knowledge, attitudes, and practices regarding exclusive breastfeeding among HIV-positive mothers in Uganda: A qualitative study. *The International Journal of Health Planning and Management*, 35(4), 888-896.
49. Lumbantoruan, C., Kermode, M., Giyai, A., Ang, A., & Kelaher, M. (2018). Understanding women's uptake and adherence in option B+ for prevention of mother-to-child HIV transmission in Papua, Indonesia: a qualitative study. *PloS one*, 13(6), e0198329.
50. Joseph Davey, D., Farley, E., Towriss, C., Gomba, Y., Bekker, L. G., Gorbach, P., ... & Myer, L. (2018). Risk perception and sex behaviour in pregnancy and breastfeeding in high HIV prevalence settings: Programmatic implications for PrEP delivery. *PloS one*, 13(5), e0197143.
51. Linguissi, L. S. G., Sagna, T., Soubeiga, S. T., Gwom, L. C., Nkenfou, C. N., Obiri-Yeboah, D., ... & Simpo, J. (2019). Prevention of mother-to-child transmission (PMTCT) of HIV: a review of the achievements and challenges in Burkina-Faso. *HIV/AIDS (Auckland, NZ)*, 11, 165.
52. World Health Organization. (2010). *Brest feeding and HIV*. Geneva: World Health Organization.
53. Biomndo, B. C., Bergmann, A., Lahmann, N., & Atwoli, L. (2021). Intimate partner violence is a barrier to antiretroviral therapy adherence among HIV-positive women: Evidence from government facilities in Kenya. *PloS one*, 16(4), e0249813.
54. Zureick-Brown, S., Lavilla, K., & Yount, K. M. (2015). Intimate partner violence and infant feeding practices in India: a cross-sectional study. *Maternal & child nutrition*, 11(4), 792-802.
55. Mueller, I., & Tronick, E. (2020). The long shadow of violence: the impact of exposure to intimate partner violence in infancy and early childhood. *International Journal of Applied Psychoanalytic Studies*, 17(3), 232-245.
56. Tsedal, D. M., Yitayal, M., Abebe, Z., & Tsegaye, A. T. (2020). Effect of intimate partner violence of women on minimum acceptable diet of children aged 6–23 months in Ethiopia: evidence from 2016 Ethiopian demographic and health survey. *BMC nutrition*, 6(1), 1-11.
57. Tran, L. M., Nguyen, P. H., Naved, R. T., & Menon, P. (2020). Intimate partner violence is associated with poorer maternal mental health and breastfeeding practices in Bangladesh. *Health policy and planning*, 35(Supplement_1), i19-i29.
58. Etowa, J., Nare, H., Kakuru, D. M., & Etowa, E. B. (2020). Psychosocial Experiences of HIV-Positive Women of African Descent in the Cultural Context of Infant Feeding: A Three-Country Comparative Analyses. *International Journal of Environmental Research and Public Health*, 17(19), 7150.
59. Bradley, E. L., Geter, A., Lima, A. C., Sutton, M. Y., & Hubbard McCree, D. (2018). Effectively addressing human immunodeficiency virus disparities affecting US Black women. *Health Equity*, 2(1), 329-333.
60. Mkandawire, A. K., Jumbe, V., & Nyondo-Mipando, A. L. (2022). To disclose or not: experiences of HIV infected pregnant women in disclosing their HIV status to their male sexual partners in Blantyre, Malawi. *BMC Public Health*, 22(1), 1-14.
61. Ziersch, A., Walsh, M., Baak, M., Rowley, G., Oudih, E., & Mwanri, L. (2021). "It is not an acceptable disease": A qualitative study of HIV-related stigma and discrimination and impacts on health and wellbeing for people from ethnically diverse backgrounds in Australia. *BMC Public Health*, 21(1), 1-15.
62. Nydegger, L. A., Dickson-Gomez, J., & Ko, T. K. (2021). Structural and syndemic barriers to PrEP adoption among Black women at high risk for HIV: a qualitative exploration. *Culture, Health & Sexuality*, 23(5), 659-673.
63. Greene, S., Ion, A., Elston, D., Kwaramba, G., Smith, S., Carvalhal, A., & Loutfy, M. (2015). "why aren't you breastfeeding?": how mothers living with HIV talk about infant feeding in a "breast is best" world. *Health care for women international*, 36(8), 883-901.
64. Yuen, M., Hall, O. J., Masters, G. A., Nephew, B. C., Carr, C., Leung, K., ... & Moore Simas, T. A. (2022). The effects of breastfeeding on maternal mental health: a systematic review. *Journal of Women's Health*, 31(6), 787-807.
65. Kapiriri, L., Tharao, W. E., Muchenje, M., Masinde, K. I., Siegel, S., & Ongoiba, F. (2014). The experiences of making infant feeding choices by African, Caribbean and Black HIV-positive mothers in Ontario, Canada. *World Health & Population*, 15(2), 14-22.

66. Bekker, L. G., Alleyne, G., Baral, S., Cepeda, J., Daskalakis, D., Dowdy, D., ... & Beyrer, C. (2018). Advancing global health and strengthening the HIV response in the era of the Sustainable Development Goals: the International AIDS Society—Lancet Commission. *The Lancet*, 392(10144), 312-358.
67. Taylor, M., Newman, L., Ishikawa, N., Laverty, M., Hayashi, C., Ghidinelli, M., ... & Essajee, S. (2017). Elimination of mother-to-child transmission of HIV and Syphilis (EMTCT): Process, progress, and program integration. *PLoS medicine*, 14(6), e1002329.
68. United Nations Programme on HIV/AIDS. (2011). Global Plan towards the Elimination of New HIV Infections among Children by 2015 and Keeping their Mothers Alive. https://www.unaids.org/sites/default/files/media_asset/20110609_JC2137_Global-Plan-Elimination-HIV-Children_en_1.pdf
69. World Health Organization & UNICEF. (2007). Guidance on global scale-up of the prevention of mother to child transmission of HIV: towards universal access for women, infants and young children and eliminating HIV and AIDS among children. World Health Organization.
70. Kassa, G. M. (2018). Mother-to-child transmission of HIV infection and its associated factors in Ethiopia: a systematic review and meta-analysis. *BMC infectious diseases*, 18(1), 1-9.
71. Marshall, K. J., Fowler, D. N., Walters, M. L., & Doreson, A. B. (2018). Interventions that address intimate partner violence and HIV among women: a systematic review. *AIDS and Behavior*, 22(10), 3244-3263.
72. Sullivan, T. (2019). The intersection of intimate partner violence and HIV: detection, disclosure, discussion, and implications for treatment adherence. *Topics in antiviral medicine*, 27(2), 84.
73. Sileo, K. M., Kintu, M., & Kiene, S. M. (2018). The intersection of intimate partner violence and HIV risk among women engaging in transactional sex in Ugandan fishing villages. *AIDS care*, 30(4), 444-452.
74. McCree, D. H., Koenig, L. J., Basile, K. C., Fowler, D., & Green, Y. (2015). Addressing the intersection of HIV and intimate partner violence among women with or at risk for HIV in the United States. *Journal of Women's Health*, 24(5), 331-335.
75. Miltz, A. R., Lampe, F. C., Bacchus, L. J., McCormack, S., Dunn, D., White, E., ... & Gafos, M. (2019). Intimate partner violence, depression, and sexual behaviour among gay, bisexual and other men who have sex with men in the PROUD trial. *BMC public health*, 19(1), 1-17.
76. Pulerwitz, J., Hughes, L., Mehta, M., Kidanu, A., Verani, F., & Tewolde, S. (2015). Changing gender norms and reducing intimate partner violence: results from a quasi-experimental intervention study with young men in Ethiopia. *American Journal of Public Health*, 105(1), 132-137.
77. Wechsberg, W. M., van der Horst, C., Ndirangu, J., Doherty, I. A., Kline, T., Browne, F. A., ... & Zule, W. A. (2017). Seek, test, treat: substance-using women in the HIV treatment cascade in South Africa. *Addiction science & clinical practice*, 12(1), 1-11.
78. Stockman, J. K., & Jacquelyn, C. (2015). Intimate partner violence and its health impact on disproportionately affected populations. *Including Minorities and Impoverished Groups Journal of Women's Health*, 24, 62-79.
79. Cavanaugh, C., & Ward, K. (2021). HIV/STI prevention interventions for women who have experienced intimate partner violence: a systematic review and look at whether the interventions were designed for disseminations. *AIDS and Behavior*, 1-12.
80. Gibbs, A., Jacobson, J., & Kerr Wilson, A. (2017). A global comprehensive review of economic interventions to prevent intimate partner violence and HIV risk behaviours. *Global health action*, 10(sup2), 1290427.
81. Parcesepe, A. M., Cordoba, E., Gallis, J. A., Headley, J., Tchatchou, B., Hembling, J., ... & Baumgartner, J. N. (2021). Common mental disorders and intimate partner violence against pregnant women living with HIV in Cameroon: a cross-sectional analysis. *BMC pregnancy and childbirth*, 21(1), 1-14.
82. Fiorentino, M., Sagaon-Teyssier, L., Ndiaye, K., Suzan-Monti, M., Mengue, M. T., Vidal, L., ... & EVOLCam Study Group. (2019). Intimate partner violence against HIV-positive Cameroonian women: Prevalence, associated factors and relationship with antiretroviral therapy discontinuity—results from the ANRS-12288 EVOLCam survey. *Women's health*, 15, 1745506519848546.
83. Lemons-Lyn, A. B., Baugher, A. R., Dasgupta, S., Fagan, J. L., Smith, S. G., & Shouse, R. L. (2021). Intimate partner violence experienced by adults with diagnosed HIV in the US. *American journal of preventive medicine*, 60(6), 747-756.
84. Orza, L., Bass, E., Bell, E., Crone, E. T., Damji, N., Dilmitis, S., ... & Welbourn, A. (2017). In women's eyes: key barriers to women's access to HIV treatment and a rights-based approach to their sustained well-being. *Health and human rights*, 19(2), 155.
85. Kabwama, S. N., Bukonya, J., Matovu, J. K., Gwokyalaya, V., Makumbi, F., Beyeza-Kashesya, J., ... & Wanyenze, R. K. (2019). Intimate partner violence among HIV positive women in care—results from a national survey, Uganda 2016. *BMC women's health*, 19(1), 1-10.
86. Mulrenan, C., Colombini, M., Howard, N., Kikuvi, J., & Mayhew, S. H. (2015). Exploring risk of experiencing intimate partner violence after HIV infection: a qualitative study among women with HIV attending postnatal services in Swaziland. *BMJ open*, 5(5), e006907.

87. Hampanda, K. M., & Rael, C. T. (2018). HIV status disclosure among postpartum women in Zambia with varied intimate partner violence experiences. *AIDS and Behavior*, 22(5), 1652-166.
88. Rice, W. S., Fletcher, F. E., Akingbade, B., Kan, M., Whitfield, S., Ross, S., ... & Turan, J. M. (2020). Quality of care for Black and Latina women living with HIV in the US: a qualitative study. *International journal for equity in health*, 19, 1-13.
89. Closson, K., McLinden, T., Parry, R., Lee, M., Gibbs, A., Kibel, M., ... & Hogg, R. S. (2020). Severe intimate partner violence is associated with all-cause mortality among women living with HIV. *Aids*, 34(10), 1549-1558.
90. Motsoeneng, M. (2021). The experiences of South African rural women living with the fear of Intimate Partner Violence, and vulnerability to HIV transmission. *FWU Journal of Social Sciences*, 15(1), 132-142.
91. Goudet, S., Griffiths, P. L., Wainaina, C. W., Macharia, T. N., Wekesah, F. M., Wanjohi, M., ... & Kimani-Murage, E. (2018). Social value of a nutritional counselling and support program for breastfeeding in urban poor settings, Nairobi. *BMC public health*, 18(1), 1-14.
92. Ejara, D., Mulualem, D., & Gebremedhin, S. (2018). Inappropriate infant feeding practices of HIV-positive mothers attending PMTCT services in Oromia regional state, Ethiopia: a cross-sectional study. *International Breastfeeding Journal*, 13(1), 1-10.
93. Ariyo, T., & Jiang, Q. (2021). Intimate partner violence and exclusive breastfeeding of infants: analysis of the 2013 Nigeria demographic and health survey. *International breastfeeding journal*, 16(1), 1-11.
94. Aristizábal, L. Y. G., & Theme Filha, M. M. (2022). Physical violence against women by their intimate partner during pregnancy and its relationship with breastfeeding. *Revista brasileira de saúde materno infantil*, 22, 247-255.
95. Peters, H., Francis, K., Sconza, R., Horn, A., S Peckham, C., Tookey, P. A., & Thorne, C. (2017). UK mother-to-child HIV transmission rates continue to decline: 2012–2014. *Clinical Infectious Diseases*, 64(4), 527-528.
96. Bradley, H., Rosenberg, E. S., & Holtgrave, D. R. (2019). Data-driven goals for curbing the US HIV epidemic by 2030. *AIDS and behavior*, 23(3), 557-563.
97. Dong, Y., Guo, W., Gui, X., Liu, Y., Yan, Y., Feng, L., & Liang, K. (2020). Preventing mother to child transmission of HIV: lessons learned from China. *BMC Infectious Diseases*, 20(1), 1-10.
98. Gong, T., Wang, H., He, X., Liu, J., Wu, Q., & Wang, J. (2018). Investigation of prevention of mother to child HIV transmission program from 2011 to 2017 in Suzhou, China. *Scientific Reports*, 8(1), 1-7.
99. Moise, I. K., de Joya, E., Zulu, L. C., Kalipeni, E., & Grigsby-Toussaint, D. S. (2018). Progress towards combatting HIV/AIDS in Africa. In *Public Health, Disease and Development in Africa* (pp. 60-78). Routledge.

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.