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Mixed studies review of domestic violence in the lives of women affected by HIV stigma

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ABSTRACT

We conducted a mixed studies review to examine domestic violence and stigma against women affected by HIV. We searched Medline, Web of Science, PsycINFO and EMBASE databases with no starting date limit. Studies that reported on experiences of stigma, discrimination, or domestic violence against women affected by HIV in any country were included. Because the review focused on HIV stigma-related violence, we only included studies that reported violence following an HIV diagnosis or at the time of HIV testing. A total 1056 records were screened; 89 articles were assessed for full text eligibility and 49 studies were selected for evidence synthesis. A convergent approach was used and study findings were analysed thematically. Four broad themes emerged: (1) being affected by HIV increases domestic violence, (2) supportive reactions from partners, (3) HIV stigma is associated with domestic violence, and (4) domestic violence associated with HIV-stigma is gendered. Research gaps identified included the burden of intersectional stigma of domestic violence and HIV, and the mediating role of HIV stigma in domestic violence for women with HIV, highlighting the need for further research in this area to reduce violence against women living with HIV.

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KEYWORDS
HIV; domestic violence; stigma; gender

Background

An estimated 38 million people globally were living with HIV in 2019. Nineteen million were women, of whom 300,000 died of AIDS-related causes (WHO, 2019). People living with HIV face social stigma and discrimination (Parker & Aggleton, 2003), stemming from moral judgement and fear of contagion and often resulting in discrimination from family, friends, neighbours, healthcare providers, and others (Ekstrand et al., 2012). Goffman defined stigma as a process through which someone is discredited based on an undesirable attribute (Goffman, 1963). Stigma has been categorized into four dimensions: enacted stigma (acts of discrimination), anticipated stigma (expectation of discrimination), perceived stigma (normative or felt stigma), and internalized stigma (stigma against the self) (Turan & Nyblade, 2013).

For women living with HIV (WLHIV), the experience of stigma is intertwined with gender discrimination and is often violent (Logie et al., 2011). The World Health Organization (WHO) estimates that almost 30% of women have experienced intimate partner physical or sexual violence in their lifetime (WHO, 2017). The link between HIV and domestic violence against women is bi-directional: domestic violence increases the risk of acquiring HIV and HIV increases the risk of domestic violence (Maman et al., 2000). The WHO defines domestic violence as physical, sexual, or psychological abuse committed by an intimate partner (Kalokhe et al., 2015; WHO, 2005) or other members of a woman's shared household (Kalokhe et al., 2015). While HIV stigma may manifest in domestic violence against women, the stigma of domestic violence may prevent them from reporting or seeking help.

Previous reviews have examined the relationship between HIV and domestic violence (Campbell et al., 2008; Kennedy et al., 2015; Kouyoumdjian et al., 2013; Maman et al., 2000), but none has specifically examined the link between HIV *stigma* and domestic violence. In order to frame effective responses to both, we need to understand the effects of intersectional stigma on women's lives. Our review aimed to synthesize the evidence on violence experienced by women affected by HIV (defined here as women living with or testing for HIV), how it is linked to HIV stigma, and how the two forms of stigma intersect.

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Methods

Search strategy and terms

We conducted a mixed studies review (Pluye & Hong, 2014) of the literature to explore violence experienced by women affected by HIV and its link with HIV stigma. Medline, Web of Science, PsycINFO and EMBASE databases were searched to cover the biomedical, psychological, and public health literature, with no starting date limit and up to March 2020. Librarian-guided searches using keywords and MeSH (medical subject heading) terms covered HIV, stigma, and domestic violence. No limits were placed on gender, form of violence, or study design, but articles about women reporting on intimate partner and domestic violence were selected. Table 1 shows the Medline search on which the other searches were based, followed by citation chaining from reference lists.

Table 1. Ovid Medline example of search strategy and terms.

Search History		
	Searches	Result
1	prejudice/ or rejection, psychology/ or social discrimination/ or social distance/ or social isolation/ or social marginalization/ or social stigma/ or stereotyping/	56407
2	stigma* or discriminat* or prejud* or marginal* or stereotyp* or reject*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	573857
3	1 or 2	587150
4	domestic violence/ or gender-based violence/ or intimate partner violence/ or spouse abuse/ or physical abuse/	15503
5	(intimate partner violence or IPV or domestic violence or gender based violence or domestic abuse or spouse abuse or battered women).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	22490
6	Battered Women/	2613
7	4 or 5 or 6	22943
8	HIV/ or HIV Infections/	199461
9	(HIV or acquired immunodeficiency syndrome or human immunodeficiency virus).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	402091
10	Acquired Immunodeficiency Syndrome/	76100
11	8 or 9 or 10	402091
12	Disclosure/	13419
13	disclosure.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	45393
14	12 or 13	45393
15	3 or 14	628667
16	7 and 11 and 15	265
17	limit 16 to (english language and journal article)	247

Inclusion and exclusion criteria

The review included studies involving WLHIV or taking an HIV test. Domestic violence was defined as violence from intimate partners, families, or both. The broad inclusion criteria included peer-reviewed, original research articles that reported on experiences of stigma, discrimination, or domestic violence among cis and trans women affected by HIV in any country.

We excluded studies of experiences of men living with HIV, men who have sex with men, children and adolescents, studies on the physical or mental health outcomes of HIV or violence, and studies on non-domestic violence. Because the review focused on violence in relation to HIV stigma, we excluded studies that focused on reported lifetime prevalence of violence (where violence occurring before HIV diagnosis could not be distinguished from violence occurring after) or domestic violence as a risk factor for acquiring HIV. Review articles, intervention studies, conference abstracts, comments, and editorials were excluded.

Data extraction, quality, and synthesis

After screening by title and abstract, studies that met the inclusion criteria and reported findings on violence related to taking an HIV test, post-disclosure violence, non-disclosure of HIV diagnosis due to fear of violence, and violence after diagnosis, were included in full-text review. Information such as sample size, study design, location, setting, and a summary of key findings on stigma were extracted from the selected qualitative and mixed methods (Table 2) and quantitative studies (Table 3). Quality of studies was assessed using the Mixed Methods Appraisal (MMAT) tool (Hong et al., 2018). None of the selected studies was excluded on the basis of quality.

We took a convergent approach to synthesis and analysed qualitative and quantitative data together (Gough, 2015; Pluye & Hong, 2014). A narrative synthesis approach analysed all study types thematically (Grant & Booth, 2009; Pluye & Hong, 2014). Patterns in findings across studies were analysed inductively and iteratively to develop broad conceptual themes (Popay et al., 2006).

Results

The initial search yielded 1056 records from which 637 duplicates were removed (Figure 1). After title and

Table 2. Summary of selected qualitative and mixed methods studies.

Author/Year	Sample size and characteristics	Study design/qualitative methods	Location	Study setting	Stigma analysis
Adeniyi et al., 2017	1709 HIV+ pregnant women	Cross sectional interviews with section to elaborate on reason for non-disclosure	South Africa	Maternity clinics	Although stigma not specifically mentioned as reason for DV, possible violent backlash, blame and rejection can be classified as forms of enacted HIV stigma.
Arrey et al., 2015	28 HIV+ Sub-Saharan African women; 4 HIV/AIDS physicians; 1 therapist nurse, 5 observations.	In-depth interviews with HIV+ women (initial and at 4 months follow up), key informant interviews, observations of physician's consultations.	Belgium	University teaching hospital/AIDS Conferences	Stigma was rampant in the Sub-Saharan African community in Belgium so most women kept their HIV status a secret. Anticipated or actual experiences of partnership breakdown, rejection, violence and abandonment were reasons for non-disclosure (could be classified as enacted stigma). Discussion mentions anticipated, perceived and most importantly self-stigma which manifested as shame, denial, silence and avoidance were barriers to disclosure.
Ashaba et al., 2017	20 HIV+ pregnant women	In-depth interviews	Uganda	HIV clinic	Stigma and discrimination was reported from healthcare settings which fueled self-stigma for being pregnant while being HIV+. Non-disclosure was associated with fear of gossip and discrimination from the community and DV and abandonment from partners. Women also reported actual experiences of violence included forced treatment interruption by partners after disclosure. Negative reactions from partners were not characterized as forms of stigma although this could be interpreted as such.
Chilemba et al., 2014	12 HIV+ women	In depth interviews	Malawi	Public health clinics	The paper does not mention stigma but the actions they describe as emotional abuse overlap with acts of enacted stigma (humiliation, verbal abuse, abandonment, social exclusion, blame and shame). Internalization of abuse/blame leading to feelings of worthlessness is mentioned and can be characterized as internalized stigma.
Colombini et al., 2016	30 HIV+ women	In-depth interviews	Kenya	Sexual and reproductive health clinics	HIV status disclosure was seen as a period of heightened risk for partner stigma and abuse including physical, emotional and economic abuse and separation. Health providers were seen as a means to reduce some of the fear of anticipated partner stigma and violence and so reduce DV post disclosure.
Derose et al., 2017	30 HIV+ women	In-depth interviews	Dominican Republic	Women registered with HIV study clinics	Study specifically mentions enacted stigma from family, friends, and neighbors manifested as gossip and rejection while that from intimate partners resulted in emotional, physical and sexual abuse which together left women vulnerable to food insecurity and support. The

(*Continued*)

Table 2. Continued.

Author/Year	Sample size and characteristics	Study design/qualitative methods	Location	Study setting	Stigma analysis
					experiences led to internalized stigma which made women hesitant to disclose their status and further isolated them.
Emusu et al., 2009	26 HIV+ serodiscordant couples (~50% HIV+ women; 50% HIV- women); only women interviewed	Critical incident technique	Uganda	AIDS Information Centers	Sexual violence in serodiscordant unions (where either the male or female partner was positive) escalating after diagnosis shows that violence was due to HIV status. Although not mentioned as stigma, blame and sexual violence including deliberate infection of partners can be interpreted as forms of enacted stigma.
Gielen et al., 1997	50 HIV+ women	In-depth interviews	U.S.A	Urban teaching hospital outpatient clinic	For a quarter of women actual experiences of violence or fears of violence was associated with status disclosure but this was not specifically characterized as a result of HIV stigma. But paper mentions that destigmatizing the disease could reduce violence experienced by women living with HIV.
Gielen et al., 2000	301 HIV+ women	Mixed methods (cross sectional interviews and 43 in-depth interviews)	U.S.A	Urban teaching hospital HIV primary care clinic	About half of women experienced both intimate and non-intimate partner violence directly due to their HIV status. Blame and violence due to HIV status can be seen as forms of enacted stigma although not characterized as such in the study.
Hatcher et al., 2014	13 pregnant women, 28 key informants	Focus groups with 13 pregnant women, and in-depth interviews with 10 policy makers, 8 health providers, 6 NGOs, 4 community leaders, and 5 abused pregnant women (chosen from focus groups).	South Africa	ANC clinics	Although stigma not specifically mentioned in this study, blame and subsequent physical, sexual and emotional violence following disclosure could be considered a form of enacted stigma.
Hatcher et al., 2016	32 HIV+ women who experienced DV	In-depth interviews	South Africa	ANC clinics	Study investigates the hidden nature of HIV and DV and the two stigmatized conditions make it harder for women to find support for either condition causing women to suffer in silence..
Hershow et al., 2017	20 HIV+ women	In-depth interviews	Vietnam	Outpatient ART clinic	Participants were mostly infected by the husbands and so were not afraid to disclose to them. Role of stigma in DV not mentioned. Women were fearful of disclosing to husband's family or to the community for bringing stigma to themselves and their families.
Knettel et al., 2019	200 HIV+ pregnant women for quantitative survey, 20 qualitative interviews	Prospective cohort survey (at pregnancy n = 200 and postpartum n = 168) and in-depth interviews (at pregnancy n = 24 and 3 months post-partum n = 18)	Tanzania	HIV clinics	For quantitative part, HIV shame and internalized stigma measured using Scale A (HIV-Related Shame) of the HIV and Abuse Related Shame Inventory (HARSI-A) and non-disclosure was not associated with internalized stigma. But in qualitative interviews, women's fear of negative consequences following disclosure included partner violence, withdrawal of

(*Continued*)

Table 2. Continued.

Author/Year	Sample size and characteristics	Study design/qualitative methods	Location	Study setting	Stigma analysis
					support, and abandonment and fears of stigma (gossip, social exclusion and labeling) from the family and community. Although violence, withdrawal of support and abandonment treated separately from stigma, the former may also be considered forms of enacted stigma.
Logie et al., 2011	104 HIV+ women (69% ethnic minority; 23% lesbian/ bisexual; 22% transgender	Focus groups	Canada	Community agencies	Study examines intersectional stigma and several forms of stigma discussed. Findings include gender discrimination and HIV stigma can result in violence from intimate partners while internalized stigma cause women to be trapped in abusive relationships.
Marais et al., 2019	12 HIV+ women	In-depth interviews	South Africa	HIV maternity clinic at a tertiary hospital	HIV diagnosis and disclosure was a trigger for DV. Study findings showed that HIV stigma was exacerbated in the context of DV through partner blaming and shaming. Dual stigma of HIV and DV caused women to isolate themselves thus leading to depression and mental stress leading to poor engagement in care.
Mepham et al., 2011	100 HIV+ women	Clinical and counselling notes (100 HIV+ women) unstructured interviews (n = 43)	South Africa	Trial clinic	Threats or actual experiences of violence as a result of status disclosure was cited by a number of women. Stigma not specifically mentioned but acts of domestic violence or threats of violence can be interpreted as enacted or anticipated stigma.
Moreno, 2007	42 HIV+ women	3 focus groups (n = 32), in-depth interviews (n = 5 from focus groups), community meetings (n = 30 including 20 from focus groups)	U.S.A	Latino community agencies	No discussion of stigma as such in relation to DV, but findings showed that infecting partner often left women once they were infected. The virus also defined the quality of their relationships, with men being more controlling or domineering because of the woman's serostatus, which could be interpreted as acts of enacted stigma.
Mulrenan et al., 2015	19 HIV+ women	In-depth interviews	Swaziland	Public health facilities	Violence as a result of interpersonal triggers (eg status disclosure, vertical transmission) and normative tensions (eg opposing contraception and fertility intentions) discussed. However, blame, physical violence and coercive control could be seen as forms of enacted stigma, although not mentioned in this analysis.
Odiachi et al., 2018	100 HIV+ women (25 newly diagnosed, 26 in PMTCT care, 28 postpartum ART, 21 lost to follow up (not on ART)	Cross sectional mixed methods interview	Nigeria	Primary and secondary healthcare facilities	Worries about disclosure to intimate partners resulting in DV or divorce was common for all four groups. 20% did not plan to disclose due to fears of negative reactions and stigma (where stigma was more from family rather than partners). However, actual acts and fears of blame,

(*Continued*)

Table 2. Continued.

Author/Year	Sample size and characteristics	Study design/qualitative methods	Location	Study setting	Stigma analysis
					verbal abuse, physical violence, abandonment and financial abuse could be seen as forms of enacted or anticipated stigma.
Orza et al., 2015	945 HIV+ women (832 web survey from 94 countries, 113 in focus groups from 7 countries)	Mixed methods participatory survey	94 countries	Global listservs and clinical networks of women living with HIV	Study reported that for a third of women reported violence from an intimate partner since HIV diagnosis and that DV escalated for some after diagnosis. Recommended that stigma and discrimination should be recognized as gender based violence (IPV/violence from family/community/health settings) for women living with HIV and GBV is common for women living with HIV.
Pool et al., 2001	208 pregnant women	Focus groups	Uganda	Maternity clinics	Stigma and discrimination was a real fear among women if they had to undergo voluntary counseling and testing. Husbands finding out could possibly lead to blame, conflict and breakdown of marriage which could be interpreted as acts of enacted stigma and the fear of it as anticipated stigma.
Rujumba et al., 2012	15 HIV+ and 15 HIV- pregnant women, 6 key informants	In-depth interviews with women and key informant interviews	Uganda	ANC clinics	All those who tested positive disclosed to their partners while most women testing positive did not for fear of violence, abandonment, and blame. The fear of such negative consequences could be seen as forms of anticipated stigma but this was not described as such in this study.
Turan et al., 2016	Quantitative (pregnant women n = 614), qualitative (pregnant women n = 29, male partners n = 32, service providers n = 20, post intervention FGDs, 2 groups with n = 17, IDIs n = 25), IPV screening data (n = 134)	Baseline and follow up quantitative interviews, in-depth interviews and focus groups, key informants, clinic IPV screening data (part of a larger IPV/GBV study)	Kenya	ANC clinics	HIV testing and disclosure could be a reason for women to be "sent packing". Study shows that such acts of forced migration results in shame, stigma and loss of status (stigma of being thrown out of the house) while also being a consequence of HIV stigma.
Zamudio-Haas et al., 2012	28 HIV+ women	In-depth interviews	Zimbabwe	Hospital with HIV, ANC and reproductive health clinic	Women living with HIV could be stigmatized for having children. For almost half the participants disclosure resulted in physical and verbal abuse/humiliation, threats of being thrown out of the house and abandonment, all of which can be interpreted as acts of enacted stigma, although not specifically mentioned in the study.
Zunner et al., 2015	61 participants (HIV+ women, healthcare providers, community leaders)	In-depth interviews (n = 30), focus groups (n = 4)	Kenya	HIV clinic	Women and key informants described acts of physical, sexual, psychological and financial abuse due to HIV status which could be interpreted as manifestations of enacted HIV stigma. Feelings of hopelessness leading to depressive symptoms including suicidal ideation could be seen as an outcome of internalized stigma.

DV = domestic violence; IPV = intimate partner violence, GBV = gender based violence, ART = anti-retroviral therapy, FGD = focus group discussion, IDI = in-depth interviews, PMTCT = prevention of mother-to-child transmission, ANC = antenatal care

Table 3. Summary of selected quantitative studies.

Author/year	Sample size & characteristics	Study design	Location	Study setting	Stigma Analysis
Abuogi et al., 2019	200 HIV+ women, 12 months postpartum	Cross sectional survey	Kenya	Primary healthcare facilities	Stigma measured using (i) anticipated stigma scale (adapted from relevant research) and (ii) internalized/self stigma (modified self stigma subscale from PLHIV Index). 55% reported internalized HIV stigma and 57% reported anticipated HIV stigma. And non-disclosure was associated with both.
Aryal et al., 2012	43 HIV+ women	Cross sectional survey	Nepal	HIV care organizations	Emotional violence escalated upon diagnosis while economic abuse started only after diagnosis. Definition of emotional violence included isolation, discrimination, humiliation, shame which can also be seen as forms of enacted stigma although not described as such in this study. Self-humiliation or internalization of abuse was a major consequence of violence.
Chakraborty et al., 2016	99 HIV+ couples, 100 HIV- couples (only responses of wives analyzed; if man is positive and wife negative, wife is analyzed in the HIV+ group)	Cross sectional survey	India	HIV care organization (HIV+ group), hospital (HIV- group)	HIV stigma was not mentioned specifically as a reason for violence but over a quarter of women attributed their HIV status as a reason for their quarrels. Women in the HIV+ group reported significantly higher levels of recent sexual DV. Discussion mentioned that quarrels due to HIV possibly escalated into physical and sexual DV, which could be one cause of higher levels of domestic violence in the group.
Ezeanochie et al., 2011	305 HIV+ pregnant women	Cross sectional survey	Nigeria	ANC clinic at a university teaching hospital	Stigma not mentioned in this study, but those experiencing violence before diagnosis were at greater risk of experiencing violence after. Authors mention that HIV+ status is not just a predictor of DV but worsens pre-existing DV.
Ezechi et al., 2009	652 HIV+ pregnant women	Cross sectional study	Nigeria	Large comprehensive HIV treatment centre	Although stigma not mentioned, for 74% of women, violence started after diagnosis and for those who experienced violence before, about half reported an escalation of violence after diagnosis. Non-disclosure was due to fear of stigma, violence and rejection. Most women were afraid to report violence for fear of making status public.
Fiorentino et al., 2019	894 HIV+ women	Cross sectional survey	Cameroon	Hospitals	73% of women had experienced HIV related stigma as measured by the Berger HIV Stigma Scale. Frequent physical DV was significantly associated with experiencing HIV related stigma and ART interruption for over 1 month.
Hardy et al., 2020	129 HIV+ women in discordant relationships.	Cross sectional survey	Ghana	HIV clinic of a tertiary health facility	Although stigma not specifically mentioned, study shows high proportion of post-disclosure violence among sero-discordant couples with violence escalating post-disclosure in relationships where violence was already present. Reasons for non-reporting of DV included fear of status disclosure.
Hyginus et al., 2012	110 HIV+ and 110 HIV- pregnant women	Comparative cross-sectional survey	Nigeria	University teaching hospital	Although stigma not studied, women with HIV suffered more violence

(*Continued*)

Table 3. Continued.

Author/year	Sample size & characteristics	Study design	Location	Study setting	Stigma Analysis
					than women without HIV in the year prior to pregnancy. Of women experiencing violence, 75% women reported increased violence after disclosure of status to partners. Reporting of violence more for women with HIV. Discussion mentions women with HIV were being abused probably due to the stigma associated with HIV.
Iliyasu et al., 2011	289 HIV+ women	Cross sectional survey	Nigeria	Teaching hospital	Although role of stigma not explored in the study. Higher prevalence of violence was seen for women living with HIV compared to that in the general population in the same region. Women who had disclosed to partners were twice as likely to experience violence compared to those who did not.
Jiwatram-Negron et al., 2018	249 HIV+ women	Cross sectional survey	Kazakhstan	AIDS centers, HIV health clinics, HIV NGOs, snowballing participants.	Women reporting HIV related stigma, as measured by the Berger Stigma Scale, were significantly more likely to report DV and also HIV-status specific abuse. Women experiencing HIV related abuse were more likely to be depressed possibly due to internalized HIV stigma. HIV+ women who also traded sex had a higher relative risk of HIV-specific abuse possibly representing the dual stigma from this status.
Kabwama et al., 2019	5198 HIV+ women	Secondary data analysis from a national cross sectional survey	Uganda	HIV clinics	Study shows high level of DV for women with HIV in care but this is similar to levels in general population. Also, women in serodiscordant relationships experience less DV than women in seroconcordant relationships. Study indicates that DV is not related to HIV status or stigma.
Koenig et al., 2002	336 HIV+ and 298 HIV- at risk pregnant women	Cross sectional survey	U.S.A.	Health departments and clinics	Violence was reported by about 9% women, and violence was not associated with relationship type (abusive and non-abusive partners) and did not differ significantly between women with and without HIV. Role of stigma not explored and disclosure related violence was reported rarely and included relationship termination, anger and physical assault.
Maher et al., 2000	490 at risk women	Cross sectional survey	U.S.A.	STD clinics	Stigma not specifically discussed but there was no association on test non-uptake with partner violence/ fear of partner violence or experiences/fears of partner notifications. 12% participants reported taking the test feared partner violence, humiliation or rejection if they tested positive which can be interpreted as forms of anticipated stigma.
Malaju & Alene, 2013	400 pregnant women	Cross sectional survey	Ethiopia	ANC clinics in public health facilities	79% of women expected negative reactions from male partners upon disclosing positive test results. Women who did not have stigmatizing attitudes towards people living with HIV were twice as likely to anticipate positive

(*Continued*)

Table 3. Continued.

Author/year	Sample size & characteristics	Study design	Location	Study setting	Stigma Analysis
					reaction from male partners upon disclosure of HIV status but reasons for findings not explored.
Maman et al., 2016	403 HIV+ and 689 HIV- pregnant and postpartum women	Prospective cohort study	South Africa	Primary health clinic	For women who disclosed their status, HIV status was not associated with DV. But for women who had not disclosed, there was a five-times higher likelihood of reporting DV. Findings, suggest post-disclosure DV is not a result of HIV stigma but rather a marker of a violent relationship.
Matseke et al., 2016	673 HIV+ pregnant women	Cross sectional survey	South Africa	Community health centers	Internalized stigma was measured using the Kalichman AIDS-related Stigma Scale. Higher level of internalized stigma and depression was associated with physical and psychological DV.
Mehta et al., 2019	135 HIV+ women	Cross sectional survey	India	ART center at tertiary care hospital	Perceived stigma and discrimination (enacted stigma) was measured in the study. 41% participants reported discrimination including rejection, shifting of home, and divorce from spouse while 50% reported domestic violence (treated separate from discrimination). 82% reported perceived stigma including blame, shame and fear of family rejection.
Ojikutu et al., 2016	299 HIV+ women (100 Thailand, 100 Brazil, 99 Zambia)	Multi-site longitudinal, observational cohort	Thailand, Brazil, Zambia	HIV clinics	Perceived community stigma and anticipated stigma were measured using Likert scales. For all women in this study, anticipated stigma and severe depression were predictors of non-disclosure of HIV status to partners. Among the subset of unmarried or non-cohabiting women, perceived community stigma was a further predictor of non-disclosure to intimate partners.
Olowookere et al., 2015	360 HIV+ women	Cross sectional survey	Nigeria	ART clinic in secondary health care facility	Disclosure of HIV status was a predictor of DV with about a quarter experiencing violence since diagnosis. Almost half reported non-disclosure as a means to reduce DV. Although role of stigma not explored authors recommend reducing stigmatization as a means of reducing DV among women living with HIV.
Onono et al., 2014	281 postpartum women (104 HIV+, 123 HIV-, 54 unknown HIV status)	Post-hoc analysis of data from subset of participants from a prospective study	Kenya	ANC clinics	High levels of anticipated stigma (measured using stigma scale adapted from relevant research) and fears of negative male partner reaction, including DV was observed and this was associated with non-disclosure of HIV status.
Osinde et al., 2011	317 HIV+ pregnant women	Cross sectional survey	Uganda	HIV treatment center at regional hospital	Almost 30% of women reported DV in the last 12 months. Although HIV stigma not mentioned as possible reason for DV, women who were on ART were twice as likely to report DV in the last 12 months.
Ramlagan et al., 2019	673 HIV+ pregnant women	Cross sectional survey	South Africa	Community health centers	Perceived HIV Stigma Scale and the Kalichman AIDS Related Stigma Scale was used to measure HIV/AIDS stigma. DV was significantly associated with experiencing personalized stigma which possibly

(*Continued*)

Table 3. Continued.

Author/year	Sample size & characteristics	Study design	Location	Study setting	Stigma Analysis
					leads to greater perceived HIV-related stigma.
Shamu et al., 2014	1951 postpartum women (299 HIV+ and 1652 HIV-)	Cross sectional survey	Zimbabwe	Public clinics	Women disclosing test results, both positive and negative experienced violence, but more women testing positive experienced violence (41%) than those testing negative (32%). Also, significant portion of these women experienced violence for the first time after disclosure, with those testing positive more likely to experience violence. Role of stigma in violence not measured.
Turan et al., 2011	1525 pregnant women (94 refused testing, 1431 accepted testing (254 HIV+ and 1177 HIV-)).	Cross sectional survey	Kenya	ANC clinics	Anticipated stigma scale was adapted from relevant research and perceived community stigma measured using a scale from National Institute of Mental Health Project Accept. Women who anticipated male partner stigma were twice as likely to refuse an HIV test and as were women with a lack of knowledge about male partner's HIV testing status. Anticipated stigma from others and perceived community stigma was not associated with refusal of HIV testing.

ART = antiretroviral therapy, DV = domestic violence, ANC = antenatal care, STD = sexually transmitted disease

abstract screening, 548 records did not meet the inclusion criteria. Eighty-nine full text articles were reviewed for eligibility, of which 40 were excluded for reasons described in Figure 1. The analysis included 49 studies, of which 18 used qualitative, 7 mixed-methods, and 24 quantitative methods. Table 4 summarises their locations.

Being affected by HIV increases domestic violence

The risk of domestic violence against women affected by HIV can increase at every stage of the trajectory, from taking an HIV test to disclosing status to living with HIV. Three studies described how HIV testing could increase the risk of domestic violence and how anticipation of violence could cause women to refrain from disclosing positive test results (Pool et al., 2001; Shamu et al., 2014; Turan et al., 2016). Although nearly one-third of US women declined to take an HIV test, this was not strongly associated with fear of partner violence (Maher et al., 2000).

Thirty-one studies found that disclosure of positive HIV test results could increase the risk of actual violence or that fear of violence could lead to non-disclosure. Twelve quantitative (Abuogi et al., 2019; Ezechi et al., 2009; Hardy et al., 2020; Iliyasu et al., 2011; Koenig et al., 2002; Malaju & Alene, 2013; Maman et al., 2016; Ojikutu et al., 2016; Olowookere et al., 2015; Onono et al., 2014; Shamu et al., 2014; Turan et al., 2011), twelve qualitative (Arrey et al., 2015; Ashaba et al., 2017; Colombini et al., 2016; Derose et al., 2017; Gielen et al., 1997; Hatcher et al., 2014; Hatcher et al., 2016; Mulrenan et al., 2015; Pool et al., 2001; Rujumba et al., 2012; Zamudio-Haas et al., 2012; Zunner et al., 2015), and seven mixed methods (Adeniyi et al., 2017; Gielen et al., 2000; Knettel et al., 2019; Mepham et al., 2011; Odiachi et al., 2018; Orza et al., 2015; Turan et al., 2011) studies reported on actual or anticipated post-disclosure violence. Generally, women were afraid to disclose positive test results for fear of violent backlash and women who disclosed largely experienced violence. Fears of disclosure were greater for women in polygamous marriages as a positive diagnosis could lead to the husband returning to another wife (Rujumba et al., 2012). Fifteen studies described how domestic violence started or worsened following HIV diagnosis and provided the strongest evidence that having HIV increases women's risk of violence (Aryal et al., 2012; Emusu et al., 2009; Ezeanochie et al., 2011; Ezechi et al., 2009; Gielen et al., 2000; Hardy et al., 2020; Hatcher et al., 2016; Hyginus et al., 2012; Iliyasu et al., 2011; Marais et al., 2019; Mulrenan et al., 2015; Olowookere et al., 2015; Orza et al., 2015; Shamu et al., 2014; Zunner et al., 2015). One study from South Africa described how violence started or worsened

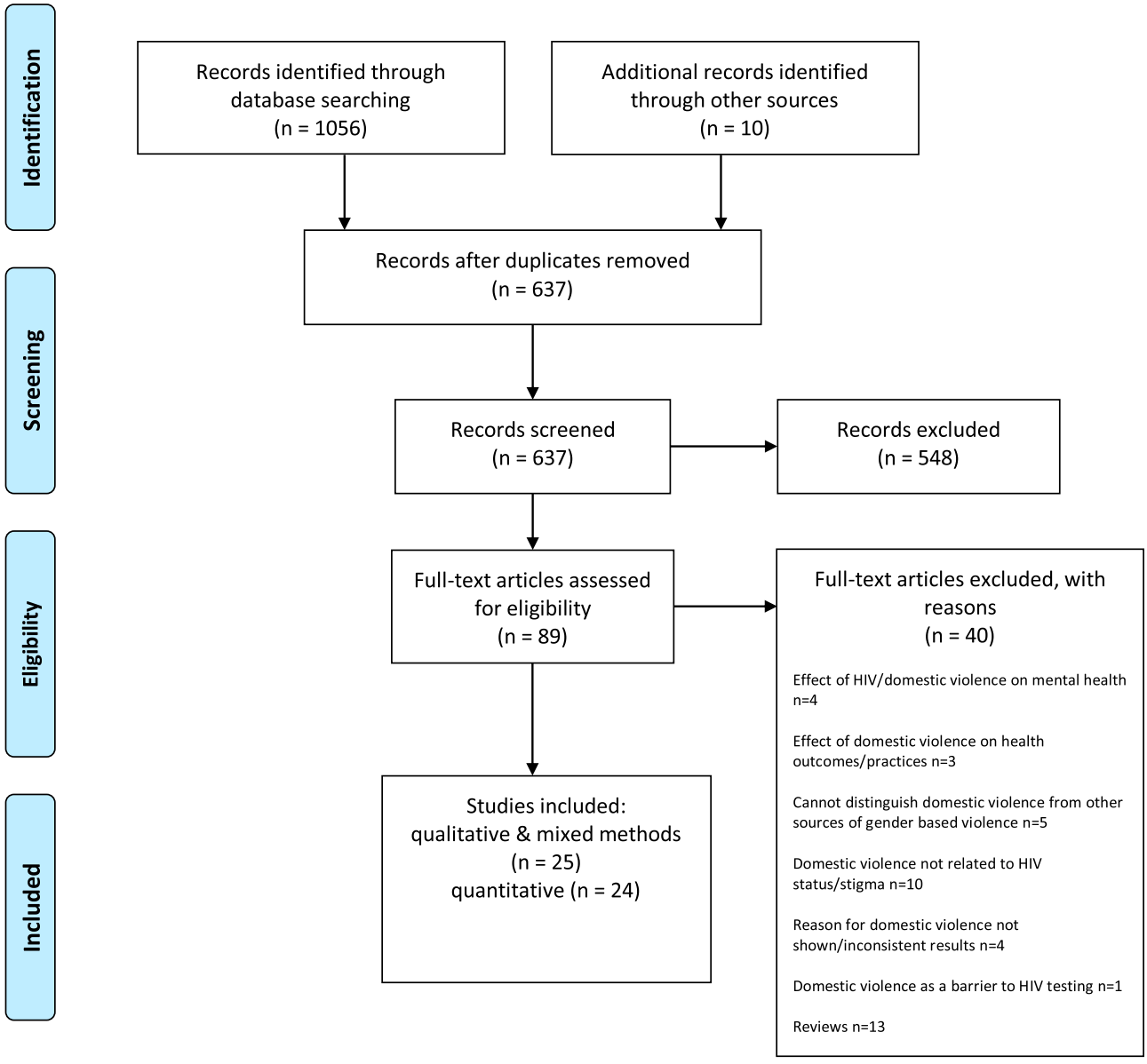

Figure 1. PRISMA diagram for data extraction.

immediately after HIV testing, while another reported worsening of abuse due to HIV status (Hatcher et al., 2016; Marais et al., 2019). Similar findings of violence commencing or escalating after disclosure were reported from Ghana, Uganda, Zimbabwe, Kenya, and Nigeria (Emusu et al., 2009; Ezeanochie et al., 2011; Ezechi et al., 2009; Hardy et al., 2020; Hyginus et al., 2012; Iliyasu et al., 2011; Olowookere et al., 2015; Shamu et al., 2014; Zunner et al., 2015) A third of participants in a global survey reported violence because of HIV (Orza et al., 2015), while a small proportion of US women reported similar findings (Gielen et al., 2000). Women in Nepal reported a sharp rise in domestic violence, with economic violence starting only after diagnosis (Aryal et al., 2012) and, in India, WLHIV reported more "quarrels," with almost a third of them attributed it to HIV status (Chakraborty et al., 2016).

Supportive reactions from partners

There were, however, fourteen studies that reported supportive reactions from partners (Abuogi et al., 2019; Adeniyi et al., 2017; Ashaba et al., 2017; Derose et al., 2017; Gielen et al., 1997; Gielen et al., 2000; Hershow et al., 2017; Iliyasu et al., 2011; Kabwama et al., 2019; Mulrenan et al., 2015; Odiachi et al., 2018; Rujumba et al., 2012; Shamu et al., 2014; Zamudio-Haas et al., 2012), and some showed that violence was

Table 4. Geographic location of selected studies.

Geographical location	Study
Sub-Saharan Africa	Abuogi et al., 2019; Adeniyi et al., 2017; Ashaba et al., 2017; Chilemba et al., 2014; Colombini et al., 2016; Emusu et al., 2009; Ezeanochie et al., 2011; Ezechi et al., 2009; Fiorentino et al., 2019; Hardy et al., 2020; Hatcher et al., 2016; Hatcher et al., 2014; Hyginus et al., 2012; Iliyasu et al., 2011; Kabwama et al., 2019; Knettel et al., 2019; Malaju & Alene, 2013; Maman et al., 2016; Marais et al., 2019; Matseke et al., 2016; Mepham et al., 2011; Mulrenan et al., 2015; Odiachi et al., 2018; Olowookere et al., 2015; Onono et al., 2014; Osinde et al., 2011; Pool et al., 2001; Ramlagan et al., 2019; Rujumba et al., 2012; Shamu et al., 2014; Turan et al., 2011; Turan et al., 2016; Zamudio-Haas et al., 2012; Zunner et al., 2015.
North America	Gielen et al., 2000; Gielen et al., 1997; Koenig et al., 2002; Logie et al., 2011; Maher et al., 2000; Moreno, 2007
South America	Derose et al., 2017
Europe	Arrey et al., 2015
Central Asia	Jiwatram-Negron et al., 2018
South and Southeast Asia	Aryal et al., 2012; Chakraborty et al., 2016; Hershow et al., 2017; Mehta et al., 2019.
Multi-country	Ojikutu et al., 2016; Orza et al., 2015

a function of behavioural or relationship characteristics rather than HIV status. A South African study found no association between disclosure of HIV status and domestic violence, but non-disclosure was associated with a greater likelihood of experiencing violence, suggesting that non-disclosure could be a marker for a violent relationship (Maman et al., 2016). In a US study, violence was present in abusive and non-abusive partnerships and did not differ by serostatus (Koenig et al., 2002). A Ugandan study indicated that, although WLHIV experienced high levels of domestic violence, they were similar to those experienced in the general population (Kabwama et al., 2019). Vietnamese women who reported infection from their husbands did not experience or anticipate violence upon disclosure of positive status, mainly because their spouses were injection drug users and presumptive sources of infection (Hershow et al., 2017), and women from Western Kenya using couples testing and counselling services had a greater likelihood of reporting positive male partner reactions upon disclosure (Abuogi et al., 2019).

HIV stigma is associated with domestic violence

Violence was rarely described in the literature in terms of HIV-related stigma. It was described instead as physical, sexual, or emotional abuse due to HIV serostatus (Adeniyi et al., 2017; Aryal et al., 2012; Ashaba et al., 2017; Chakraborty et al., 2016; Chilemba et al., 2014; Emusu et al., 2009; Ezeanochie et al., 2011; Ezechi et al., 2009; Gielen et al., 1997; Gielen et al., 2000; Hardy et al., 2020; Hatcher et al., 2014; Hershow et al., 2017; Hyginus et al., 2012; Iliyasu et al., 2011; Kabwama et al., 2019; Koenig et al., 2002; Maher et al., 2000; Maman et al., 2016; Mepham et al., 2011; Moreno, 2007; Mulrenan et al., 2015; Odiachi et al., 2018; Olowookere et al., 2015; Orza et al., 2015; Osinde et al., 2011; Rujumba et al., 2012; Shamu et al., 2014; Zamudio-Haas et al., 2012; Zunner et al., 2015). Studies reported fears or acts of physical violence, blame, and abandonment due to suspicions of infidelity rather than conceiving them as the result of enacted stigma. For instance, a qualitative study in Malawi described women's experiences of humiliation, abandonment, and blame as forms of emotional abuse due to HIV status rather than forms of enacted stigma (Chilemba et al., 2014). Studies described feelings of hopelessness, diminished self-worth, and guilt as emotional problems rather than consequences of internalized stigma (Chilemba et al., 2014; Zunner et al., 2015).

Eighteen studies did, however, explicitly show that HIV-related stigma was associated with domestic violence (Abuogi et al., 2019; Arrey et al., 2015; Colombini et al., 2016; Derose et al., 2017; Fiorentino et al., 2019; Hatcher et al., 2016; Jiwatram-Negron et al., 2018; Knettel et al., 2019; Logie et al., 2011; Marais et al., 2019; Matseke et al., 2016; Mehta et al., 2019; Ojikutu et al., 2016; Onono et al., 2014; Pool et al., 2001; Ramlagan et al., 2019; Turan et al., 2011; Turan et al., 2016). Women were afraid to take an HIV test or disclose their status because of HIV stigma-related violence or fears of it (anticipated stigma). Two Kenyan and one Ugandan studies described how fear of HIV stigma and discrimination was associated with avoiding testing (Pool et al., 2001; Turan et al., 2011; Turan et al., 2016). Five studies described how anticipated stigma and internalized stigma were important reasons for non-disclosure of status to avoid domestic violence (Abuogi et al., 2019; Arrey et al., 2015; Knettel et al., 2019; Ojikutu et al., 2016; Onono et al., 2014), while one study reported that disclosure increased risk of stigma and abuse from male partners (Colombini et al., 2016).

Nine studies considered stigma-related domestic violence in the everyday lives of WLHIV in a range of geographic settings (Derose et al., 2017; Fiorentino et al., 2019; Hatcher et al., 2016; Jiwatram-Negron et al., 2018; Logie et al., 2011; Marais et al., 2019; Matseke et al., 2016; Mehta et al., 2019; Ramlagan et al., 2019). In Cameroon, HIV-related stigma was associated with double the risk of frequent physical domestic violence, which was associated in turn with interruption of antiretroviral therapy (ART) (Fiorentino et al., 2019). A South African study reported that higher levels of

internalized stigma and depression were associated with physical or psychological violence (Matseke et al., 2016). Another showed that women who survived domestic violence were more likely to experience personalized HIV stigma (Ramlagan et al., 2019). Two studies from South Africa reported briefly on the dual burden of HIV and domestic violence stigma, leading to reduced ability of WLHIV to seek support (Hatcher et al., 2016; Marais et al., 2019). The enacted HIV stigma experienced by women in the Dominican Republic contributed to food insecurity, while internalized stigma led to social isolation (Derose et al., 2017). Canadian WLHIV discussed how the combination of HIV stigma and gender discrimination trapped them in abusive relationships (Logie et al., 2011). Women reporting HIV-related stigma in Kazakhstan had almost twice the risk of experiencing intimate partner violence, with about one-tenth experiencing HIV-specific abuse (Jiwatram-Negron et al., 2018). In India, domestic violence associated with perceived and enacted HIV stigma was associated with unsafe sex (Mehta et al., 2019).

Domestic violence associated with HIV is gendered

Although all people living with HIV may face violence, the experiences of men and women may differ, often due to unequal social structures that position women as inferior to men (Boesten & Poku, 2013; Greig et al., 2008; Mitra & Sarkar, 2011). Disclosure of serostatus is often the first trigger for violence against women affected by HIV. Women usually test for HIV during pregnancy and this can result in disclosure asymmetry or serodiscordance when male partners have not been tested. Both can trigger domestic violence (Abuogi et al., 2019; Colombini et al., 2016; Ezechi et al., 2009; Hatcher et al., 2014; Mulrenan et al., 2015; Turan et al., 2016; Zunner et al., 2015). WLHIV experienced multiple forms of violence from different sources after disclosure. For instance, they were humiliated by partners and in-laws who publicized their serostatus and labelled them as prostitutes (Chilemba et al., 2014; Zunner et al., 2015). Family members and neighbours encouraged men to abandon their wives due to suspicions of infidelity and HIV reflecting badly on the family and community (Chilemba et al., 2014; Turan et al., 2016; Zamudio-Haas et al., 2012; Zunner et al., 2015). Children testing positive for HIV also sparked violence from male partners (Ezeanochie et al., 2011; Marais et al., 2019; Mulrenan et al., 2015).

Controlling behaviours and male partners deliberately infecting women were other forms of abuse. A qualitative study with Latina WLHIV in the US described how men did not want to be with women who had HIV and it became a factor in the quality of their relationships, giving men an excuse for controlling behaviours (Moreno, 2007). Women also reported being deliberately infected with HIV by their husbands or partners as a form of abuse (Emusu et al., 2009; Moreno, 2007).

Forceful interruption of treatment was another form of violence. Women who were currently on ART were three times more likely to report domestic violence, which could make it difficult for them to adhere to treatment (Osinde et al., 2011). Women who did not disclose hid their medication for fear of violent reprisals if male partners found out (Hatcher et al., 2014; Marais et al., 2019; Mepham et al., 2011; Zunner et al., 2015). Controlling partners became suspicious during clinic visits, becoming physically abusive and actively stopping women from collecting medication (Ashaba et al., 2017; Hatcher et al., 2016; Marais et al., 2019), or interfered with ART intake (Hardy et al., 2020; Zunner et al., 2015). Frequent physical violence was associated with ART interruption of greater than one month (Fiorentino et al., 2019). Finally, internalization of abuse led to hopelessness, which made it burdensome for women to engage in HIV care (Hatcher et al., 2016; Marais et al., 2019; Zunner et al., 2015), and caused some to contemplate suicide (Chilemba et al., 2014; Hardy et al., 2020; Hatcher et al., 2016; Zunner et al., 2015).

Withdrawal of financial support after an HIV diagnosis was yet another form of abuse reported by women in multiple studies (Aryal et al., 2012; Ashaba et al., 2017; Chilemba et al., 2014; Colombini et al., 2016; Derose et al., 2017; Hardy et al., 2020; Hyginus et al., 2012; Malaju & Alene, 2013; Odiachi et al., 2018; Turan et al., 2016; Zunner et al., 2015), and fearing withdrawal of financial support was a barrier to disclosure (Knettel et al., 2019; Odiachi et al., 2018; Pool et al., 2001; Rujumba et al., 2012; Turan et al., 2016). Women were also forced to tolerate their partners' risky behaviours and abuse due to their financial dependence on them (Arrey et al., 2015; Chilemba et al., 2014; Emusu et al., 2009; Marais et al., 2019; Moreno, 2007; Orza et al., 2015). Lack of financial support could lead to food scarcity (Chilemba et al., 2014; Colombini et al., 2016; Derose et al., 2017; Zunner et al., 2015) and interruption of treatment (Odiachi et al., 2018).

Negotiation of safe sex was associated with higher risk of domestic violence against women, irrespective of cultural setting. Since WLHIV are more likely to negotiate safe sex, they are at greater risk of violence (Chakraborty et al., 2016; Chilemba et al., 2014; Colombini et al., 2016; Emusu et al., 2009; Gielen et al., 1997;

Hatcher et al., 2014; Marais et al., 2019; Mehta et al., 2019; Mepham et al., 2011; Moreno, 2007; Mulrenan et al., 2015; Zamudio-Haas et al., 2012; Zunner et al., 2015). Latina women in the US found it difficult to find partners who would be willing to use condoms (Moreno, 2007). Traditional gender norms set expectations around childbearing, forcing women to engage in condomless sex (Emusu et al., 2009; Mulrenan et al., 2015; Ojikutu et al., 2016; Zunner et al., 2015), and studies from India found associations between domestic violence and negotiation of safe sex (Chakraborty et al., 2016; Mehta et al., 2019).

Women also reported being trapped in abusive relationships due to their HIV status (Derose et al., 2017; Logie et al., 2011; Marais et al., 2019; Moreno, 2007). Two African studies showed that women were afraid to report violence for fear of making their status public (Ezechi et al., 2009; Hardy et al., 2020). One study found that almost half of women did not report violence (Iliyasu et al., 2011) and another that WLHIV were more likely to report violence to formal and informal sources, although the reasons for such behaviours were not explored (Hyginus et al., 2012). WLHIV feared not finding another partner due to their serostatus (Derose et al., 2017; Logie et al., 2011). Internalization of emotional abuse from partners was another reason for women to remain in abusive relationships (Marais et al., 2019).

Discussion

Although previous reviews have examined HIV and domestic violence, ours is the first, to our knowledge, to examine the evidence around stigma and domestic violence in the lives of women affected by HIV. The evidence that being affected by HIV increases violence confirms the findings from previous reviews (Campbell et al., 2008; Kennedy et al., 2015; Kouyoumdjian et al., 2013; Maman et al., 2000), and this review adds evidence on how violence is linked to HIV stigma and the additional burden of the intersectional stigma of domestic violence and HIV.

Although most studies came from Africa, our findings held across high- and low-income countries. Some studies drew explicit links between violence and HIV stigma, but most only considered how violence was related to being affected by HIV. Several studies showed supportive reactions from partners, which highlighted the importance of interventions such as couples counselling in reducing violence following an HIV diagnosis. The review also captured how violence in the lives of women with HIV was gendered. Women were often blamed for bringing HIV into the relationship as they were usually the first to get tested during pregnancy – in itself not a biological necessity, but a manifestation of gender norms that medicalize women's life processes, particularly reproduction (Conrad, 1992). Once known to have HIV, women were at increased risk of multiple forms of violence from male partners and their families.

The review also identified two important gaps in the literature. First, although both HIV and domestic violence are stigmatized, few studies have reported on the intersectional stigma of the two. This is important because, as shown in studies with women with multiple marginalized identities, the interaction of stigmas can amplify the stigma experience (Logie et al., 2011; Rice et al., 2018). Only three studies showed that WLHIV were unlikely to report violence due to fears of making their HIV status public, although the association with stigma was not explored (Ezechi et al., 2009; Hardy et al., 2020; Hyginus et al., 2012). HIV stigma may also worsen domestic violence stigma, as WLHIV who survive domestic violence may not be able to seek support after an episode due to the compounded shame of HIV and facing domestic violence. Two qualitative studies from South Africa reported this lack of social support (Hatcher et al., 2016; Marais et al., 2019), one highlighting the additional HIV shame created by abusive partners (Marais et al., 2019). Partners exploit the stigma of HIV, which when internalized may entrap women in abusive relationships (Logie et al., 2011; Marais et al., 2019).

The second gap is a lack of studies that recognize the mediating role of stigma in domestic violence against WLHIV. The theoretical literature recognises HIV stigma as a form of violence: physical violence against people living with HIV has been described as a form of enacted stigma and fear of it as anticipated stigma (Earnshaw & Chaudoir, 2009; Herek, 1999; Holzemer et al., 2007). Over a third of studies described violence experienced by WLHIV as related to HIV stigma, while the rest framed it as a function of HIV serostatus. Domestic violence in the lives of WLHIV may start or escalate upon HIV diagnosis and violence has been shown to be greater for WLHIV than for others (Kouyoumdjian et al., 2013). This means that, although *all* women may experience domestic violence, WLHIV may experience abuse *solely* due to their HIV serostatus. HIV, with its associated fears of transmission and blame for poor moral character (Herek, 2002), makes the violence happen. This is HIV stigma and it drives the violence that occurs in women's lives. Knowing this is crucial to designing violence reduction interventions for WLHIV, because applying domestic violence interventions without accompanying HIV stigma reduction may make them ineffective.

Limitations

One reviewer screened articles due to resource constraints. The selected articles included diverse populations and study designs and comparability was limited. Most of the quantitative studies were cross-sectional, some with small sample sizes, which limited causal inference. The search terms captured the broad concepts of domestic violence, HIV, and stigma, but studies often reported violence as an outcome of HIV status (rather than HIV stigma) and some may have been missed. Hand-searches of reference lists minimized this limitation as far as possible. Finally, a broader search of HIV stigma could have included studies on violence such as controlling behaviours by partners and in-laws.

Conclusion

Our review synthesized the evidence on domestic violence and HIV stigma. The findings suggest that testing for or living with HIV increases the risk of domestic violence (although some women do get support from partners), that this violence is associated with HIV stigma, and that HIV-related domestic violence is gendered. The review identified important research gaps on the intersectional stigma of domestic violence and HIV and the need to recognize the mediating role of HIV stigma in domestic violence against women. The implications include (1) a need for empirical studies to understand the burden of intersecting HIV and domestic violence stigma in women's lives and (2) the importance of the role of HIV stigma in domestic violence experienced by WLHIV, so that appropriate violence reduction interventions can be designed for them.

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