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Impact of Canadian human immunodeficiency virus non-disclosure case law on experiences of violence from sexual partners among women living with human immunodeficiency virus in Canada: Implications for sexual rights

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Abstract

Objectives: People living with human immunodeficiency virus in Canada can face criminal charges for human immunodeficiency virus non-disclosure before sex, unless a condom is used and their viral load is <1500 copies/mL. We measured the reported impact of human immunodeficiency virus non-disclosure case law on violence from sexual partners among women living with human immunodeficiency virus in Canada.

Methods: We used cross-sectional survey data from wave 3 participant visits (2017–2018) within Canadian HIV Women's Sexual and Reproductive Health Cohort Study; a longitudinal, community-based cohort of women living with human immunodeficiency virus in British Columbia, Ontario and Quebec. Our primary outcome was derived from response to the statement: '[HIV non-disclosure case law has] increased my experiences of verbal/physical/sexual violence from sexual partners'. Participants responding 'strongly agree/agree' were deemed to have experienced increased violence due to the law. Participants responding 'not applicable' (i.e. those without sexual partners) were excluded. Multivariate logistic regression identified factors independently associated with increased violence from sexual partners due to human immunodeficiency virus non-disclosure case law.

Results: We included 619/937 wave 3 participants. Median age was 46 (interquartile range: 39–53) and 86% had experienced verbal/physical/sexual violence in adulthood. Due to concerns about human immunodeficiency virus non-disclosure case law, 37% had chosen not to have sex with a new partner, and 20% had disclosed their human immunodeficiency virus status to sexual partners before a witness. A total of 21% self-reported that human immunodeficiency virus non-disclosure case law had increased their experiences of verbal/physical/sexual violence from sexual partners. In adjusted

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analyses, women reporting non-White ethnicity (Indigenous; African/Caribbean/Black; Other), unstable housing and high human immunodeficiency virus–related stigma had significantly higher odds of reporting increased violence from sexual partners due to human immunodeficiency virus non-disclosure case law.

Conclusion: Findings bolster concerns that human immunodeficiency virus criminalization is a structural driver of intimate partner violence, compromising sexual rights of women living with human immunodeficiency virus. Human immunodeficiency virus non-disclosure case law intersects with other oppressions to regulate women's sexual lives.

Keywords

Canadian HIV Women's Sexual and Reproductive Health Cohort Study, human immunodeficiency virus, human immunodeficiency virus criminalization, sexual rights, violence, women

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Introduction

Scientific consensus that human immunodeficiency virus (HIV) viral load suppression eliminates the risk of HIV transmission to sexual partners offers the potential to reimagine the sexual lives of people living with HIV.[1–3] Attempts to translate the robust empirical evidence to overcome pervasive HIV-related stigma, normalize HIV and reclaim the sexual rights of people living with HIV have been mobilized through community-driven campaigns, including 'Undetectable equals Untransmittable' (U=U),[4] and online global platforms, such as 'Life and Love with HIV'.[5] However, the broad and discriminatory application of laws against people living with HIV continues to hinder efforts to realize sexual liberty for people living and loving with HIV in the era of antiretroviral therapy (ART).[6]

Canada has accumulated among the highest absolute number of HIV criminalization cases globally.[6] People living with HIV in Canada can face criminal charges for HIV non-disclosure before sex with a 'realistic possibility' of HIV transmission.[7,8] This legal precedent was set by the Supreme Court of Canada in 2012. In ruling on R. v. Mabior and R. v. D.C, the court clarified there would be no 'realistic possibility' of HIV transmission (thus no legal duty to disclose) if a person living with HIV achieved an HIV viral load <1500 copies/mL and used a condom.[7,8] The Court's legal interpretation of risk was inconsistent with scientific evidence that sustained adherence to ART can eliminate the risk of HIV transmission to sexual partners through HIV viral load suppression alone.[9,10] Evidence to support the absence of transmission risk with viral suppression has further strengthened since the 2012 Supreme Court ruling.[1,2,11,12] In some provinces prosecutorial guidelines for HIV non-disclosure cases have been published in an attempt to reduce harm and incorporate contemporary scientific evidence in legal decision-making,[13] but critics argue these guidelines do not go far enough.[14] While some prosecutorial services and lower courts have deviated from the Supreme Court ruling to advance judgements more appropriately reflecting evidence-based science, the 2012 case law continues to set national precedent for HIV non-disclosure prosecutions.[15,16] This disconnect between scientific knowledge and legal interpretation of HIV transmission risk propagates misinformation, which drives HIV-related stigma.[17]

Sexual assault laws are most often used to prosecute cases of alleged HIV non-disclosure in Canada. In applying sexual assault laws, sexual autonomy via informed consent becomes a justification for HIV criminalization, and HIV non-disclosure is conflated with sexual assault.[18] This is based on the interpretation that HIV non-disclosure by a sexual partner represents fraud, invalidating consent that was given to a sexual encounter by the HIV-negative partner.[19] The charge most frequently applied is aggravated sexual assault, defined in the Criminal Code of Canada as a sexual assault that 'wounds, maims, disfigures or endangers the life of the complainant'.[20] This represents one of the most serious charges in the Criminal Code, and a conviction can result in a maximum sentence of life imprisonment and registration as a sex offender. In these criminal cases, HIV is considered to be a weapon of harm.[21] Exposure to a 'realistic possibility' of HIV transmission is deemed sufficient to endanger life, and charges are brought regardless of whether HIV transmission occurred or intent to transmit HIV was established. Legal frameworks applied in these cases single out HIV from other infectious diseases, driving HIV exceptionalism; the concept that HIV necessitates a unique response beyond what is prescribed for other infectious diseases.[22] HIV exceptionalism in legal decision-making is also manifested in high rates of conviction in contrast with non-HIV-related aggravated sexual assault cases.[23]

The application of sexual assault laws to prosecute HIV non-disclosure cases in Canada has notable significance for women living with HIV. The origins of Canadian sexual assault laws were rooted in a passionate uprising of women's rights activists against gender-based violence, driven by the aspiration to enshrine women's equality, dignity and sexual autonomy in law.[24] It is, therefore, a bitter irony that survivors of violence are overrepresented among women who have faced charges of aggravated sexual

assault for HIV non-disclosure in Canada.[16] There are also examples of women in abusive sexual partnerships who have been prosecuted for HIV non-disclosure.[7] In the criminal case R v. DC, an initial charge of domestic violence raised by a woman living with HIV against her abusive male partner was overturned after a more sensationalized accusation of HIV non-disclosure was made against the complainant by her abusive partner.[7] This accusation related to one alleged (and contested) episode of condomless sex without HIV serostatus disclosure at the inception of a 4-year-long mutually disclosed relationship, during which no HIV transmission occurred.[7] The layers of stigma, disempowerment and inequality experienced by women defendants underscore the challenges of safe HIV disclosure and negotiation of safer sex practices.[16,25] For example, women living with HIV may risk violence on HIV status disclosure to a partner, or fear reporting violence to the police because they could be prosecuted themselves for HIV non-disclosure, as in the case R vs. DC.[7]

From a women's rights lens, a primary motivating factor in the initial development and application of criminal law against people living with HIV was its perceived role to protect vulnerable women at risk of acquiring HIV through sexual violence or dependent partnerships, and to advance sexual autonomy.[26,27] However, justification of HIV criminalization to advance women's sexual autonomy assumes the woman is the HIV-negative partner,[18] which is flawed given that women and girls represented 53% of people living with HIV globally in 2020.[28] HIV non-disclosure prosecutions fail to acknowledge or address pervasive gendered drivers of HIV acquisition, including power imbalance in relationships and gender-based violence.[29–31] For women living with HIV, male partner control creates challenges for condom negotiation among women navigating HIV criminalization and violence in the U=U era.[32]

Canadian HIV non-disclosure case law is insensitive to gendered challenges and consequences of HIV status disclosure, including the risk of violence, stigma, discrimination and relationship breakdown.[33–36] Consequently, previous research within the Canadian HIV Women's Sexual and Reproductive Health Cohort Study (CHIWOS) cohort suggested that a majority (>75%) of women living with HIV in Canada fear HIV status disclosure.[37] HIV status disclosure is associated with beneficial health outcomes, including improved engagement with ART and reduced HIV transmission.[38–40] However, laws criminalizing HIV non-disclosure represent a structural barrier to engaging with HIV testing and treatment, compromising population health benefits of Treatment-as-Prevention (prevention of onward HIV transmission by reducing HIV viral load to undetectable levels through ART use).[41]

Human rights scholars have condemned the use of criminal law against women living with HIV, declaring it a threat to women's rights and sexual autonomy.[26,42] Research from a Canadian context starkly illuminates that gender-based inequities in realizing HIV viral load suppression translate to reduced likelihood of satisfying the Supreme Court's legal criteria for HIV non-disclosure for women living with HIV.[43] Furthermore, suboptimal awareness and understanding of the legal obligation to disclose have been reported among Canadian women living with HIV.[37] While women are underrepresented among Canadian HIV non-disclosure prosecutions,[16] previous work asserts that the *threat* of prosecution can negatively shape the environment within which women navigate sexual relationships.[32,35,44]

The association between intimate partner violence and HIV has been well-documented within the international literature.[45,46] In a Canadian context, forced sex is the third most common mode of HIV acquisition among women,[47] and experiences of violence in adulthood are highly prevalent (estimated at 80%) among women living with HIV.[48] Qualitative scholarship has begun to explore women's experiences of sexual relationships, violence and disclosure in a climate of HIV criminalization.[32,35,49,50] However, quantitative work to quantify the impact of HIV criminalization as a structural driver of violence within sexual partnerships and to measure differential impacts across the diversity of women living with HIV in Canada is lacking. At this juncture, this analysis sought to estimate the reported impact of HIV non-disclosure case law on experiences of violence from sexual partners among women with HIV, and to consider the implications for sexual rights for women living and loving in the era of U=U.

Methods

Setting

At the end of 2018, 62,050 people were living with HIV in Canada.[51] In 2019, almost one-third (30.2%) of all HIV diagnoses in Canada were among women, with the rate of new HIV diagnoses among women slightly increasing since 2015 (2.6 to 3.4 per 100,000 population).[51] Indigenous and African, Caribbean or Black (ACB) women are overrepresented among women living with HIV in Canada.[51] By late 2020, there had been 225 prosecutions for HIV non-disclosure in Canada,[16] with the provinces of Ontario, Quebec and British Columbia (BC) (the most populous provinces) amassing the highest number of HIV non-disclosure cases.[23]

Data source

CHIWOS is a community-based prospective observational cohort study of women living with HIV in Canada.[52] The primary aim of CHIWOS was to define women-centred care and longitudinally investigate its impact on varied health outcomes of women with HIV.[53] CHIWOS follows the theoretical frameworks of critical feminism, anti-oppression and

intersectionality, and is grounded in the principles of Greater Involvement of People Living with HIV/Acquired Immunodeficiency Syndrome (AIDS) and Meaningful Involvement of Women Living with HIV/AIDS.[52,54] Women living with HIV with varied lived experiences are hired, trained and supported as peer research associates (PRA) who directly shape the research agenda, administer surveys to participants and play a key role in interpretation and dissemination of research findings.[52,54,55]

CHIWOS recruited 1422 women living with HIV from BC, Ontario and Quebec between August 2013 and May 2015. Eligible participants self-identified as women, had been diagnosed with HIV, were at least 16 years old and were resident in one of the study provinces at baseline. Purposive sampling was used to recruit women via personal networks, AIDS Service Organizations, HIV Clinics, CHIWOS social media platforms and non-HIV-specific community settings. Increased efforts were made to recruit women underrepresented in research, including transgender women, Indigenous women, women who inject drugs and young women.

At baseline, participants completed a PRA-administered online questionnaire in-person or over Skype/telephone. Follow-up interviews occurred at 18-month intervals, with wave 2 and 3 follow-up occurring from June 2015 to January 2017 and March *2017* to September 2018, respectively.[52]

Measuring the impact of the criminalization of HIV non-disclosure on the health and rights of women living with HIV was identified as a key research priority by PRA and the CHIWOS Community Advisory Board to bolster advocacy efforts and the case against HIV exceptionalism in legal decision-making. In collaboration with PRA, legal experts, academics and clinicians, novel questions were designed for incorporation into the wave 2 and 3 data collection instruments to investigate awareness and understanding (wave 2), and impacts (waves 2 and 3) of HIV non-disclosure case law in Canada.[37]

Ethics

Ethical approval was gained from Research Ethics Boards at Simon Fraser University, University of BC/Providence Health (IRB H11-00669), Women's College Hospital, McGill University Health Centre and independent ethics boards of participating clinics. Participants provided written, voluntary informed consent (or oral consent with a study team member present as a witness for surveys conducted by phone or Skype) and received an *honorarium* of $50 at each study visit.

Inclusion criteria

This analysis included CHIWOS participants who completed the wave 3 CHIWOS survey and had non-missing data for questions investigating the perceived impact of HIV non-disclosure case law on experience of violence in sexual partnerships. Participants responding 'not applicable' to the question (representing women who reported no recent sexual partnerships) were excluded.

Measures

Primary outcome. The primary outcome variable was derived from response to the statement: '[HIV non-disclosure case law has] increased my experiences of verbal, physical or sexual violence from sexual partners'. Participants responding strongly agree/agree (versus neither agree nor disagree/disagree/strongly disagree) were deemed to have experienced increased violence.

Secondary outcomes. In addition, we measured the perceived impact of HIV non-disclosure prosecutions on sexual decision-making through response to two statements: 'I have chosen not to have sex with a new partner due to concerns about [HIV non-disclosure case law]' and 'I have chosen to disclose my status to a sexual partner in front of a witness due to concerns about [HIV non-disclosure case law]' (responses dichotomized as strongly agree/agree versus neither agree nor disagree/disagree/strongly disagree in all cases).

Explanatory variables. Sociodemographic variables included age, province of interview (Ontario versus BC versus Quebec), ethnicity (White versus Indigenous/ACB/other ethnicities), self-identified sexual orientation (Heterosexual versus Lesbian, Gay, Bisexual, Transgender, Queer (LGBTQ)), years living in Canada (born in Canada versus >10 years versus $\leqslant 10$ years), unstable housing (defined as living outside/in a car/couch surfing/transition house/halfway house/shelter/single room occupancy hotel) (yes versus no), personal annual income ($<$\$20,000 Canadian dollars (CAD) versus $\geqslant$\$20,000 CAD), history of incarceration (yes versus no), history (ever) of illicit drug use (yes versus no), experience of (verbal/physical/sexual) violence as an adult (current (within last 3 months) versus previous versus never) and HIV-related stigma, with scores $\geqslant$ median recorded as 'high' HIV-related stigma) (low versus high). HIV-related stigma was measured using the short-form (10-item) HIV Stigma Scale,[56,57] which measures 'Personalized Stigma' (enacted stigma), 'Disclosure Concerns' (enacted stigma), 'Negative Self-Image' (internalized stigma) and 'Concern with Public Attitudes' (perceived stigma).

Sexual health variables included relationship status (legally married/common law/ in a relationship versus single/separated/divorced/widowed), history of sex work (yes versus no) and experience of violence (verbal/physical/sexual) upon HIV status disclosure to a sexual partner (yes versus no).

Clinical variables included self-reported viral load at interview (undetectable versus detectable), on ART at interview (yes versus no) and depressive symptoms (measured using Centre for Epidemiologic Studies Short Depression Scale,[58,59] with scores ⩾10 indicating probable depression) (yes versus no).

Data analysis

Descriptive statistics were computed, including median and interquartile range (IQR) for continuous variables and frequencies (%) for categorical variables. Sociodemographic, sexual health and clinical variables were compared between participants who perceived that HIV non-disclosure case law increased experiences of violence from sexual partners and those who did not, using the Wilcoxon rank sum test (continuous variables) or Pearson's χ^2 test (categorical variables (Fisher's exact test if count < 5).

Multivariate logistic regression identified variables independently associated with self-reporting increased experience of violence from sexual partners due to HIV non-disclosure case law. Candidate variables for model inclusion had a significance level of $p < 0.2$ in bivariate analysis or were hypothesized to influence experience of violence based on an a priori literature search. If responses were missing or not clearly specified ('don't know/prefer not to answer'), participants were excluded from model selection. If >5% participants reported missing/unspecified responses for a specific variable, 'missing' or 'don't know/prefer not to answer' was included in the model as a response option. Model selection was reached using a backwards selection process to minimize the Akaike information criterion, guided by type III p values. The p values were two-sided and considered statistically significant at $\alpha = 0.05$. All analyses were conducted using SAS 9.4 software (SAS Institute Inc., Cary, NC).

Results

Characteristics of the analytic sample are shown in Table 1. Among 937 CHIWOS wave 3 participants, 619 (66%) were included in this analysis; 44% (n = 274) from Ontario, 31% (n = 194) from Quebec and 24% (n = 151) from BC. The median participant age was 46 years (IQR: 39–53). Most participants self-identified as White (n = 253, 41%) or ACB (n = 235, 38%), with 15% (n = 92) of participants identifying as Indigenous. Overall, 92% (n = 554) of participants self-reported an undetectable viral load. Experience of violence as an adult was reported by 86% (n = 531) of women, and 26% (n = 161) reported current experience of violence. Almost one-fifth (n = 114, 18%) of participants had experienced violence from a sexual partner upon disclosing their HIV status.

Perceived impact of HIV non-disclosure case law on violence from sexual partners

Overall, 21% (n = 127) perceived that HIV non-disclosure case law had increased their experience of violence from sexual partners. In bivariate analysis, women who perceived that HIV non-disclosure case law increased their experience of violence were more likely to report non-White ethnicity ($p = 0.018$), LGBTQ sexual orientation ($p = 0.006$), unstable housing ($p = 0.022$), high HIV-related stigma ($p < 0.001$), experience of violence as an adult ($p = 0.004$), experience of violence upon HIV disclosure to a sexual partner ($p < 0.001$) and probable depression ($p = 0.013$). In the multivariate logistic regression model, women who reported non-White versus White ethnicity (adjusted odds ratio (AOR): 1.75 (95% confidence interval (CI): 1.11, 2.76), unstable housing (yes versus no) (AOR: 2.32 95% CI: 1.14, 4.74) and high versus low HIV-related stigma (AOR: 2.43, 95% CI: 1.56, 3.79), had significantly higher odds of reporting increased violence from sexual partners due to HIV non-disclosure case law (Table 2).

Reported impact of HIV non-disclosure case law on sexual decision-making

Due to concerns about HIV non-disclosure case law, 37% (n = 230) reported that they had chosen not to have sex with a new partner. In bivariate analysis, a higher prevalence of intentional abstinence with a new partner was observed among participants who reported the law had increased their experience of violence from sexual partners (67% versus 29%, $p > 0.001$) (Table 3). Notably, 20% (n = 126) of participants reported having disclosed their HIV status to sexual partners in front of a witness due to concerns about HIV non-disclosure case law. A significantly higher prevalence of witnessed disclosure was observed among participants who reported that the law had increased their experience of violence from sexual partners (39% versus 16%, $p < 0.001$).

Discussion

To our knowledge, this is the first analysis to quantitatively measure the perceived impact of Canadian HIV non-disclosure case law on experiences of violence from sexual partners among women living with HIV in Canada. Among a cohort of women living with HIV responding to a question about intimate partner violence and HIV non-disclosure case law, one-fifth (21%) perceived that HIV non-disclosure case law had increased their experience of verbal, physical or sexual violence from sexual partners. Women living with HIV navigate sexual relationships within a risk environment differentially shaped by HIV stigma, gender inequality and gender-based violence.[60] Our work suggests that HIV non-disclosure case law may

Table 1. Sociodemographic, sexual and clinical characteristics of eligible wave 3 CHIWOS participants, stratified by reported impact of HIV non-disclosure case law on experience of verbal, physical or sexual violence from sexual partners (n = 619).

Variable	All participants (n = 619, 100%)		HIV non-disclosure case law increased violence from sexual partners (n = 127, 21%)	HIV non-disclosure case law did not increase violence from sexual partners (n = 492, 79%)	p value
	Median (IQR)/n (%)	Total			
Sociodemographic variables					
Age at interview	46 (39, 53)	619	46 (41, 53)	46 (39, 54)	0.9
Province of interview		619			0.265
British Columbia	151 (24)		32 (25)	119 (24)	
Ontario	274 (44)		62 (49)	212 (43)	
Quebec	194 (31)		33 (26)	161 (33)	
Ethnicity		617			0.018
White	253 (41)		40 (32)	213 (43)	
Indigenous/African/Caribbean/Black/Other	364 (59)		86 (68)	278 (57)	
Sexual orientation		618			0.006
Heterosexual	541 (88)		102 (80)	439 (89)	
LGBTQ	77 (12)		25 (20)	52 (11)	
Years living in Canada		612			0.352
Born in Canada	339 (55)		63 (51)	276 (56)	
>10	156 (25)		31 (25)	125 (26)	
⩽10	117 (19)		29 (24)	88 (18)	
Unstable housing[a]		615			0.022
No	574 (93)		112 (89)	462 (94)	
Yes	41 (7)		14 (11)	27 (6)	
Personal annual income		611			0.074
⩾$20,000	228 (37)		38 (30)	190 (39)	
<$20,000	383 (63)		87 (70)	296 (61)	
History of incarceration		617			0.215
No	401 (65)		77 (61)	324 (66)	
Yes	216 (35)		50 (39)	166 (34)	
History of illicit drug use ever		617			0.502
No	304 (49)		65 (51)	239 (49)	
Yes	313 (51)		62 (49)	251 (51)	
HIV-related stigma[b]		613			<0.001
Low stigma (score ⩽ median)	309 (50)		40 (31)	269 (55)	
High stigma (score > median)	304 (50)		87 (69)	217 (45)	
Violence as an adult[c]		619			0.004
Never	54 (9)		9 (7)	45 (9)	
Previous (not current)	370 (60)		64 (50)	306 (62)	
Current	161 (26)		49 (39)	112 (23)	
DK/PNTA	34 (5)		5 (42)	29 (61)	
Sexual health characteristics					
In a relationship		617			0.084
No	412 (67)		93 (74)	319 (65)	
Yes	205 (33)		33 (26)	172 (35)	
No	412 (67)		93 (74)	319 (65)	
History of sex work		619			0.206
No	388 (63)		71 (56)	317 (64)	
Yes	159 (26)		39 (31)	120 (24)	
DK/PNTA/Missing	72 (12)		17 (13)	55 (11)	
Experienced violence upon HIV disclosure to sexual partner		619			<0.001
No	478 (77)		60 (47)	418 (85)	

(Continued)

Table 1. (Continued)

Variable	All participants (n = 619, 100%)		HIV non-disclosure case law increased violence from sexual partners (n = 127, 21%)	HIV non-disclosure case law did not increase violence from sexual partners (n = 492, 79%)	p value
	Median (IQR)/n (%)	Total			
Yes	114 (18)		61 (48)	53 (11)	
DK/PNTA/Not applicable	27 (4)		6 (5)	21 (4)	
Clinical characteristics					
Self-reported VL at interview		604			0.062
Undetectable	554 (92)		106 (88)	448 (93)	
Detectable	50 (8)		15 (12)	35 (7)	
On ART at time of interview		615			0.709
Yes	587 (95)		122 (96)	465 (95)	
No	28 (5)		5 (4)	23 (5)	
Probable depression[d]		609			0.013
No	320 (53)		54 (43)	266 (55)	
Yes	289 (47)		71 (57)	218 (45)	

Percentage totals may exceed 100% due to rounding; CHIWOS: Canadian HIV Women's Sexual and Reproductive Health Cohort Study; ART: antiretroviral therapy; IQR: interquartile range; DK/PNTA: don't know/prefer not to answer; LGBTQ: lesbian, gay, bisexual, transgender and queer; VL: viral load.

[a]Defined as living outside/in a car/couch surfing, living in a transition house/halfway house/shelter/single room occupancy hotel.

[b]Measured using the short-form (10-item) HIV Stigma Scale.

[c]Experienced verbal/physical/sexual violence.

[d]Measured using Centre for Epidemiologic Studies Depression Scale.

further heighten this sexual risk environment, increasing experiences of violence for many women. Our findings echo previous qualitative work undertaken with cisgender and transgender women living with HIV, which found that the legal framework for criminalization of HIV non-disclosure increases the risk of gender-based violence.[32] Our work also builds upon national findings from arts-based research with 48 Canadian women living with HIV, which identified an increased fear of violence from sexual partners in the current legal climate.[35]

Our findings must be contextualized by the almost universal baseline prevalence of previous verbal, physical or sexual violence, as previously noted within this cohort.[48] The relationship between HIV and intimate partner violence is complex and multidirectional.[29,45,61] Intimate partner violence increases the risk of HIV acquisition for women, in addition to physical injury, sexually transmitted infections, depression, post-traumatic stress and death.[62–65] Women living with HIV attempting to disclose HIV status or negotiate condom use face increased risks of intimate partner violence,[66,67] and may remain with an abusive partner due to fear of stigma and social isolation, as well as threats of retaliation.[35,49] In the current legal climate, women living with HIV may be faced with the impossible choice of risking violence following HIV disclosure to sexual partners or risking prosecution for HIV non-disclosure.[32] Furthermore, fear of prosecution for alleged HIV non-disclosure by a vindictive partner may represent a barrier to ending an abusive relationship.[35] In failing to acknowledge pervasive gendered power imbalance within relationships, our findings suggest that HIV non-disclosure case law may oppress and even endanger some women living with HIV, increasing experiences of violence in some sexual partnerships. Our findings challenge the portrayal of the criminalization of HIV non-disclosure as a tool to protect women or an effective HIV prevention strategy.[26,27]

In adjusted analyses, women who were unstably housed were significantly more likely to report increased experiences of violence from sexual partners due to the law. Over 60% of CHIWOS participants have a personal annual income of less than $20,000 Canadian dollars, under the Canadian poverty line.[68] Participants who are unstably housed represent the most deprived and financially vulnerable women living with HIV within this cohort. Quantitative work in North America reveals a high prevalence of intimate partner violence[69] and increased experiences of HIV-related stigma[70] among women living with HIV who are unstably housed. Furthermore, women facing economic dependence or financial instability may be less able to leave abusive relationships.[71] Unstable housing is similarly a risk for poor engagement in the cascade of HIV care and achievement of an undetectable viral load,[72] highlighting the importance of interventions to provide affordable housing to women living with HIV.

High HIV-related stigma was also identified as an independent correlate of self-reported increased violence from sexual partners due to HIV non-disclosure case law. Previous Canadian quantitative work has similarly shown an association between violence and HIV-related stigma

Table 2. Unadjusted and adjusted odds ratios for correlates of reported impact of HIV non-disclosure case law on experience of verbal, physical or sexual violence from sexual partners among CHIWOS participants (n = 571).

	Increase versus no increase in experience of violence from sexual partners due to HIV non-disclosure case law			
	Unadjusted OR (95% CI)	Unadjusted p value	Adjusted OR (95% CI)	Adjusted p value
Age at interview (per year increase)	1.00 (0.98, 1.02)	0.697	Not selected	
Ethnicity		0.006		0.017
White	1.00	1.00	1.00	
Indigenous/African/Caribbean/Black/Other	1.86 (1.19, 2.90)		1.75 (1.11, 2.76)	
Sexual orientation		0.057		
Heterosexual	1.00		Not selected	
LGBTQ	1.73 (0.98, 3.05)			
Unstable housing[a]		0.012		0.02
No	1.00		1.00	
Yes	2.42 (1.21, 4.82)		2.32 (1.14, 4.74)	
Personal annual income		0.033		
⩾ $20,000	1.00		Not selected	
< $20,000	1.62 (1.04, 2.54)			
HIV-related stigma[b]		<0.001		<0.001
Low stigma (score ⩽ median)	1.00		1.00	
High stigma (score > median)	2.63 (1.7, 4.08)		2.43 (1.56, 3.79)	
In a relationship		0.159		
Yes	1.00		Not selected	
No	1.39 (0.88, 2.19)			
Self-reported VL		0.082		
Undetectable	1.00		Not selected	
Detectable/don't know	1.8 (0.93, 3.49)			
Probable depression[c]		0.021		
No	1.00		Not selected	
Yes	1.63 (1.08, 2.47)			

CHIWOS: Canadian HIV Women's Sexual and Reproductive Health Cohort Study; LGBTQ: lesbian, gay, bisexual, transgender and queer; VL: viral load; OR: odds ratio; CI: confidence interval.
[a]Defined as living outside/in a car/couch surfing, living in a transition house/halfway house/shelter/single room occupancy hotel.
[b]Measured using the short-form (10-item) HIV Stigma Scale.
[c]Measured using Centre for Epidemiologic Studies Depression Scale.

among women living with HIV,[48,73] and violence against women living with HIV has been characterized as a form of enacted stigma.[74] HIV-related stigma has been previously identified as a barrier to HIV status disclosure,[75] and to accessing and adhering to ART necessary to maintain an undetectable viral load.[76] HIV criminalization and HIV-related stigma are inextricably linked,[27] and the overly broad application of the law against people living with HIV acts to re-stigmatize the HIV-positive identity,[77] reviving outdated stereotypes that portray people living with HIV as 'reckless vectors'.[78] Structural approaches to HIV-related stigma call attention to the ways that stigma is embedded and (re)produced in social, legal and institutional systems, policies and practices to keep people 'in', 'down' or 'away'.[79] From this perspective, HIV criminalization is a dimension of structural stigma that regulates how women living with HIV sexually engage with others (*keeping women under control*) as well as unnecessarily causing HIV disclosure, which can have multiple repercussions, including *keeping people away* from women living with HIV.[79]

Finally, women reporting non-White ethnicity (Indigenous, ACB and other racialized women) were significantly more likely to report increased experiences of violence from sexual partners in the context of the law. Previous work has shown that ethnic minority groups are disproportionately affected by intimate partner violence.[80] In Canada, Indigenous and ACB communities face complex experiences of racism, poverty and stigma, which diversely shape their experiences of health, violence and the criminal justice system,[49,81] and create adverse consequences of HIV disclosure in the current legal system.[35] Photo-voice workshops among 17 Indigenous women living with HIV in BC highlighted the intersection between HIV criminalization and colonial violence in shaping experiences of disclosure, violence and stigma.[49] These

Table 3. Reported impacts of HIV non-disclosure case law on sexual decision-making among eligible wave 3 CHIWOS participants, stratified by reported impact of HIV non-disclosure case law on experience of verbal, physical or sexual violence from sexual partners (n = 619).

Variable	All participants (n = 619, 100%)		HIV non-disclosure case law increased violence from sexual partners (n = 127, 21%)	HIV non-disclosure case law did not increase violence from sexual partners (n = 492, 79%)	p value
	Median (IQR) or n (%)	Total			
Chosen not to have sex with a new partner due to concerns about HIV non-disclosure case law		619			<0.001
Yes	230 (37)		85 (67)	145 (2930)	
No	351 (57)		40 (312)	311 (63)	
Not applicable	38 (6)		2 (21)	36 (7)	
Disclosed HIV status to sexual partner in front of witness due to concerns about HIV non-disclosure case law		619			<0.001
Yes	126 (20)		49 (39)	77 (16)	
No	425 (69)		66 (52)	359 (73)	
Not applicable	68 (11)		12 (9)	56 (11)	

CHIWOS: Canadian HIV Women's Sexual and Reproductive Health Cohort Study; IQR: interquartile range.

findings illuminate a need for culturally sensitive, trauma-aware services tailored to marginalized and racialized groups. They also speak to the importance of an intersectional approach to structural stigma to understand how HIV non-disclosure case law is enacted and experienced differentially in ways that exacerbate pre-existing social inequities among women living with HIV.

The criminalization of HIV non-disclosure is not experienced equally, with racialized women, women living in poverty and those with a history of intimate partner violence overrepresented among women who have faced charges for alleged HIV non-disclosure in Canada.[16,82] There is a striking overlap between sub-groups of women overrepresented among defendants in alleged HIV non-disclosure cases and women most likely to experience increased intimate partner violence due to the law. Our work echoes previous concerns that HIV non-disclosure case law reinforces oppression and subordination of women living with HIV in Canada,[35] who already face intersectional forms of stigma and marginalization, driven by the interconnectedness between race, sociodemographic status, gender and sexuality.[83]

The interplay between gender-based inequities and laws criminalizing HIV non-disclosure constrains the sexual rights of women living with HIV.[32] Consistent with previous work,[44,49] our analysis showed that HIV non-disclosure case law may undermine the sexual agency of women living with HIV, representing a barrier to the formation of new sexual partnerships, and precluding women from realizing sexual agency and empowerment in the era of U = U.[2] Similarly, focus groups and in-depth interviews among women living with HIV in Ontario identified the law as a barrier to fully engaging in sexual relationships, regardless of whether a woman had an undetectable viral load or intended to use condoms.[84] Our analysis also suggests that the law relocates the burden of responsibility for HIV prevention entirely onto the sexual partner living with HIV, meaning some women resort to extreme measures to prove HIV status disclosure or condom use. The challenge of navigating sexual intimacy when the burden of proof of HIV disclosure falls entirely on people living with HIV has similarly been reported in qualitative research among Canadian women living with HIV, which questioned how women can safely disclose and prove disclosure has occurred in abusive partnerships, or in situations where they themselves do not consent to the sexual encounter.[35] As sexual pleasure is integral to sexual rights and sexual health, the criminalization of HIV non-disclosure may prevent women with HIV realizing sexual health and rights.[85]

Our work suggests that the current legal framework for prosecuting HIV non-disclosure in Canada may compromise sexual autonomy and gender equality of women living with HIV, and place some women at increased risk of violence. Our findings support calls to critically reconsider the approach to HIV criminalization in Canada in consultation with people living with HIV, legal experts, academics and clinicians.[16] To advance HIV prevention efforts, it is critical that HIV legislation and policy are firmly rooted in evidence-based science, sexual and reproductive rights and gender equity.[42] While case law from the Supreme Court of Canada that guides HIV non-disclosure prosecutions remains unchanged, some positive change has been noted. In 2019, the Canadian House of Commons Standing Committee on Justice and Human Rights acknowledged that the current use of the law can 'make women more vulnerable to intimate partner violence' and recommended that prosecution should only occur if HIV transmission

took place.[86] The Committee also recommended that HIV non-disclosure cases should not be tried using sexual assault law, recognizing the contribution of the current legal framework to HIV-related stigma and discrimination. Critically, the Committee acknowledged the importance of consulting with people living with HIV and other stakeholders to inform any formal revision of the prosecutorial guidelines for HIV non-disclosure.[86]

The Lancet Commission on the Legal Determinants of Health identifies the law as a key determinant of health and recognizes its potential to advance public health and equity.[87] However, feminist scholars argue that legal frameworks inadequately recognize the complex interactions between the law and gender in shaping health outcomes and fail to apply an intersectional lens to ensure legal strategies effectively target pervasive gender inequities.[88] Other critics have debated whether the law can provide justice for survivors of gender-based violence.[89] Gender inequities sit at the heart of HIV and gender-based violence risk for women globally.[29] Our analysis highlights a need for national investment in culturally sensitive and accessible violence support services and trauma-aware women-centred healthcare provision. However, there is a broader need to address upstream drivers of intimate partner violence and gendered economic, social and political inequities that increase women's risk of HIV acquisition.[29] This should include efforts to increase provision of affordable housing, promote a universal living wage for women, critically monitor and respond to the gender pay gap and reframe gender norms that fuel intimate partner violence.

From a legal perspective, advancing gender-responsive health policy and legal strategies that apply an intersectional feminist lens and provide a women-centred intersectional approach to legal services is indicated. Furthermore, creating legal, medical and social environments that empower and support 'safer' disclosure, sensitive to the diverse and intersecting identities of women living with HIV, is critical to advance sexual and reproductive health and rights.[90] For example, an HIV disclosure toolkit has been developed by Women's Health in Women's Hands in collaboration with women living with HIV to guide providers and peers to support women through safer HIV status disclosure, rooted in a lived perspective.[91]

Strengths and limitations

This analysis was conducted within the largest community-based cohort of women living with HIV in Canada, representing women from three Canadian provinces.[52] However, participants may not be representative of the population of women living with HIV in these locations due to the recruitment methods used – specifically women who are not engaged with HIV clinics, community organizations or community networks may be underrepresented. A key strength of this work is the community-based research approach. Meaningfully involving women living with HIV empowers the HIV community to shape this research agenda, bolstering anecdotal with empirical evidence of the harms of HIV criminalization, and empowering community leadership and activism in this field. A community-based research approach incorporates the lived experience of women living with HIV, which is essential in a climate of HIV criminalization to ensure that data collection and analytic approaches sensitively and safely address this issue.

The primary outcome variable measured the self-reported impact of HIV non-disclosure case law on experiences of violence from sexual partners. However, it may be challenging for women to decisively determine whether it was the law itself that led to increased violence from sexual partners in the context of other interrelated drivers such as stigma, poverty or racism. More rigorous methods are needed to make a strong case for causal inference between HIV non-disclosure case law and experiences of violence among women living with HIV. Given the cross-sectional nature of the data used in this analysis, comparisons over time are not possible, nor counts of events of violence before and after the 2012 Supreme Court ruling on HIV non-disclosure.

Given the sensitive nature of this topic and the possibility that it may trigger the recall of distressing experiences, this primary outcome may have been underreported. However, as this was the third wave of the study, participants were aware of the support services available to them through the study and from other linked services. All variables were self-reported and may be subject to inaccurate recall or social desirability bias. While HIV viral load was also self-reported, a previous analysis showed self-reported viral load to be strongly predictive of laboratory-confirmed (true) viral load in CHIWOS.[92]

As surveys were administered by PRA, this provided the opportunity to clarify ambiguous questions.[93] On the other hand, this mechanism of delivery may have introduced concerns related to confidentiality given the sensitive nature of the variable of interest, limiting responses for some participants. However, as these questions featured in the third wave of the CHIWOS survey, PRA and the wider team had the opportunity to cultivate the trust and respect of participants.

In constructing our ethnicity variable, racialized women (Indigenous, ACB and other) were grouped into one category (versus White ethnicity) to preserve power within the analysis. When ethnicity groupings were disaggregated into Indigenous, ACB and other racialized women, the direction of effect was consistent across all groups (i.e. all groups demonstrated higher prevalence of reported increased violence from sexual partners due to the law compared to participants reporting White ethnicity); however, the findings were not statistically significant due to small numbers.

For a small number of participants (n = 9), there was an inconsistency between self-reported experience of violence as an adult and self-reported experience of increased violence due to the law. It is possible that this represented an error in data entry or misinterpretation of the question. These participants were excluded in a sensitivity analysis, and the findings remained broadly consistent aside from a loss of statistical power to detect the association with the ethnicity variable in the adjusted model.

As this analysis specifically examined the impact of Canadian HIV non-disclosure case law in a Canadian setting, the findings may not be directly generalizable to other locations with different legal frameworks, populations and sociocultural influences. However, given that the criminal law is used against people living with HIV in 72 global settings,[6] this analysis raises important conclusions related the impact of the law on sexual rights of women living with HIV, which are relevant on an international scale.

Conclusion

In a community-based cohort of Canadian women living with HIV, one-fifth of participants reported that HIV non-disclosure case law increased their experiences of verbal, physical or sexual violence from sexual partners. Criminalizing HIV non-disclosure may increase intimate partner violence for women living with HIV, a population that is already disproportionately impacted by experiences of violence, criminalization and intersectional stigma.[48,83] Our analysis reinforces concerns that HIV non-disclosure criminalization may compromise the sexual rights of women living with HIV, limiting the realization of safe sexual expression for women living and loving with HIV in the era of U = U. This work adds to a larger body of global literature strongly denouncing the use of criminal law against people living with HIV as an effective tool to respond to pervasive gender inequities that drive HIV transmission and intimate partner violence risk among women.

Laws criminalizing HIV non-disclosure have been viewed, pursued and defended as a means of protecting the sexual well-being of women.[26,27] However, this analysis underlines the unjust reality that women living with HIV may have to *protect themselves* from adverse consequences of the law. Women living with HIV are making considered decisions about their sexual lives, given the discriminatory, often violent and oppressive contexts within which they are forced to navigate their sexuality. Elevating gender-transformative, sex-positive messaging to reflect evidence-based science and combat pervasive HIV-related stigma is critical to re-affirm women's rights to safe and satisfying sexual lives.[85]

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