

PATTERNS OF SEXUAL BEHAVIOUR AMONG AFRICAN AND CARIBBEAN WOMEN LIVING WITH HIV IN TORONTO, ONTARIO

Wangari Tharao , Mona Loutfy, Juan Liu, Rupert Kaul, Anu Rebbapragada , Lisungu Chieza, Megan Saunders, Lori-ann Greene-Walker, Robert S. Remis

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Conflict of interest statement:

No conflict of interest to declare in relation to this research

Background:

- Globally, out of the 33 million people living with HIV (PLWH), slightly more than half are women (WHO/UNAIDS, 2011)
- Infection among women in Canada has been increasing steadily and constituted 22% of all PLWH and 26% of newly diagnosed cases in 2008 - an 11% increase from the previous year (PHAC, 2010).
- Out of the 22 % of WLWH, 40% were ACB women
- Marginalized women are particularly affected, with African, Caribbean and Black (ACB) women bearing the brunt of the epidemic
- From 2009 to 2011, 57.4% of HIV diagnoses in women in Ontario were Black (Remis 2012).

Background (2):

- In Ontario in 2009, an estimated 41% of WLWH were from ACB communities (Remis et al, 2012).
- However, little is known about sexual behaviour(s) of AC women living with HIV (WLWH).

Background (3):

- The CIHR “Emerging Team Grant” a five-year plan bringing together multiple principal investigators and co-investigators at the University of Toronto, McMaster University, MLMC, WHIWH and other sites is generating information to fill some of these gaps
- Team grant projects are targeted to three populations: African-Caribbean women, African-Caribbean men and men who have sex with men (MSM)
- Aims of the emerging team grant are to:
 - Define the community epidemiology of HIV and other co-infections
 - Define how these co-infections drive HIV transmission and immunopathogenesis
 - Translate emerging results into community and public health action(s)

Study objective:

- To examine the sexual behaviour patterns of AC WLWH to better understand how women manage their engagement in sexual activity after HIV diagnosis.

Methods:

- Cross-sectional survey
- HIV-positive and HIV-negative AC women living in the greater Toronto area were recruited to participate in the study
- Eligible if 16 years or older, if they, a parent or grandparent who were born in Africa or the Caribbean
- Recruitment site was Women's Health in Women's Hands, a CHC located downtown Toronto
- Women completed a detailed questionnaire of 110 questions using ACASI
- Compared demographic characteristics and sexual history of HIV-positive and HIV-negative AC women.
- Multivariable logistic regression was used to determine correlates of sexual activity in the previous six months among HIV-positive women.

Results:

Demographic characteristics		HIV- positive	HIV- negative	p-value
N		126	291	
Age (years)	Median (IQR)	40 (34-46)	31 (24-42)	<0.0001
	15-24	1.6%	26.8%	<0.0001
	25-34	23.8%	33.0%	
	35-44	46.0%	20.3%	
	45+	28.6%	19.9%	
Region of birth	Africa	102 (81.0%)	106 (36.4%)	<0.0001
	Caribbean	21 (16.7%)	131 (45.0%)	
	Canada	2 (1.6%)	50 (17.2%)	
	Other	1 (0.8%)	4 (1.4%)	
Current immigration status	Canadian citizen	31 (25.0%)	110 (40.3%)	<0.0001
	Landed/permanent resident	40 (32.3%)	51 (18.7%)	
	Refugee/refugee claimant	50 (40.3%)	67 (24.6%)	
	Other	3 (2.4%)	45 (16.5%)	

Results (cont'd)

Demographic characteristics		HIV- positive	HIV- negative	p-value
Duration living in Canada	Median (IQR)	4 (2-11)	4 (3-19)	
	< 5 years	63 (50.4%)	96 (32.8)	
	5-9 years	27 (21.6%)	66 (23.2%)	
	10-19 years	20 (16.0%)	56 (19.7%)	
	20+ years	15 (12.0%)	66 (23.2%)	
Annual household income	Less than \$10,000	38 (35.2%)	102 (55.1%)	<0.0001
	\$10,000 or more	70 (64.8%)	83 (44.9%)	
Ever use drugs		8 (6.6%)	55 (20.9%)	0.0004
Drug use in last 6 months		4 (3.3%)	39 (14.5%)	0.0011

Results (cont'd)

Sexual behaviour characteristics		HIV-positive	HIV-negative	p-value
Ever had sex		114 (91.9%)	254 (91.7%)	ns
Age at first sex	Median (IQR)	18 (17-20)	18 (16-19)	ns
	<15	8 (10.0%)	13 (6.7%)	0.047
	15-19	45 (56.3%)	139 (71/6%)	
	20+	27 (33.8%)	42 921.650	
Number of lifetime male partners	Median (IQR)	3 (2-6)	4 (2-7)	ns
	None	10 (10.5%)	23 (9.9%)	ns
	1	10 (10.5%)	24 (10.3%)	
	2 to 4	40 (42.1%)	91 (39.1%)	
	5 to 9	24 (25.3%)	65 (27.9%)	
	10 or more	11 (11.6%)	30 (12.9%)	
Had sex in past 6 months		58 (47.2%)	167 (62.3%)	0.0049
Number of partners in past 6 months	Median (IQR)	0 (0-1)	1 (0-2)	ns
	None	65 (54.2%)	101 (39.5%)	0.0001
	1	45 (37.5%)	81 (31.6%)	<0.0001
	2 to 4	8 (6.7%)	68 (26.6%)	
	5 to 9	2 (1.7%)	5 (2.0%)	
	10 or more	0 (0.0%)	1 (0.4%)	

Results (cont'd)

Sexual behaviour characteristics		HIV-positive	HIV-negative	p-value
Having a regular partner		53 (43.1%)	160 (58.6%)	0.0042
Having a casual partner		13 (11.4%)	59 (24.6%)	0.0040
Type of partner	None	65 (58.0%)	101 (42.6%)	0.0002
	Casual only	3 (2.7%)	1 (0.4%)	
	Casual and regular	9 (8.0%)	57 (24.1%)	
	Regular only	35 (31.3%)	78 (32.9%)	
Among those having a regular partner and having sex in the past 6 months				
Condom used with regular partner in the last sex act		38 (79.2%)	62 (41.1%)	<0.0001
Always used a condom with regular partner in the past 6 months		25 (51.0%)	24 (15.9%)	<0.0001
Reason for using condom with regular partner				
Used a condom to avoid pregnancy		20 (45.5%)	68 (66.7%)	0.016
Used a condom to avoid HIV/STI		35 (79.5%)	81 (79.4%)	NS

Results (cont'd)

Covariates of having sex in the last 6 months among HIV-positives		N total	N yes	proportion	p-value
Age (years)	< 40	56	32	57.1%	0.043
	40 +	67	26	38.8%	
Marital status	Married/common-law	22	14	63.6%	0.110
	Separated/divorced/widowed	57	22	38.6%	
	Single	41	21	51.2%	
Education	Secondary school or below	60	19	31.7%	0.0010
	College/university or above	62	38	61.3%	
Household income	<\$30,000	87	34	39.1%	0.0009
	\$30,000+	20	16	80.0%	
Worked in last week	Worked	35	25	71.4%	0.0065
	Went to school	14	5	35.7%	
	Unemployed	67	27	40.3%	

Results (cont'd)

Covariates of having sex in the last 6 months among HIV-positives		N total	N yes	Proportion	p-value
Speak English	Yes	101	52	51.5%	0.0090
	No	2	14	14.3%	
Ever use illicit drugs	Yes	8	6	75.0%	0.092
	No	113	50	44.2%	
Self-rated health status	Excellent/very good	56	31	55.4%	0.096
	Other	67	27	40.3%	
Number of years diagnosed HIV-positive	<6 years	49	21	42.9%	0.030
	6-9 years	30	20	66.7%	
	10+ years	27	9	33.3%	

Results (cont'd)

Multivariable regression model: Reported having sex in the last 6 months, HIV-positive women only

		Adjusted OR	p value
Age	<40 vs. ≥40 years old	8.4 (2.3-29.7)	0.001
Education	College/university or above vs. less	4.5 (1.2-16.4)	0.023
Household income	≥\$30,000 vs. <\$30,000	53.5 (5.3-538)	0.0007
Speak English	Yes vs. no	37.0 (0.82->999)	0.063
Ever having taken illicit drugs	Yes vs. no	13.5 (1.0-175)	0.047

Multivariable regression model initially included variables significant at <0.10 in univariate, analysis with backward stepwise elimination.

Initial variables included: age, education, household income, work in the last week, speaking English, ever drug, health status and years infected

Total observation: 85 (having sex = 39, no sex =44)

Study limitations

- Recruitment of participants was clinic-based; hence, sample may not be representative of the African-Caribbean female population in Toronto
- Possible selection bias with respect to age, country of origin, sexual behaviour, participation refusal, etc.
- Language barriers may have limited women's participation
- Women's ability to participate due to other commitments e.g. availability during workdays, etc.
- Cross-sectional study; therefore, temporal and causal relationships cannot be determined

Conclusions:

- HIV-positive ACB women differ from their HIV-negative counterparts in a number of ways.
- More likely to be:
 - Older; Born in Africa; More likely to be refugee/refugee claimants; Living in Canada for less than five years; Less likely to have ever used drugs
- Sexual behaviour of HIV-positive ACB women also differed:
 - Fewer regular or casual sexual partners
 - Higher rates of condom use with regular partners
- Sexual activity amongst HIV-positive women associated with:
 - Younger age, more education, higher income, use of illicit drugs, and fluency in English
- More research is required to understand how ACB WLWH manage their sexual desires and needs, particularly those who are:
 - Older, have limited education, income and cannot communicate effectively in English

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