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Perceived HIV Risk as a Predictor of Sexual Risk Behaviors and Discrimination Among High-Risk Women

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Abstract

HIV risk perception and discrimination are important determinants of HIV prevention among vulnerable populations. Using Detroit's 2016 National HIV Behavioral Surveillance (NHBS) Survey, we evaluated demographic variables, risk behaviors, and perception of HIV stigma and discrimination stratified by perceived HIV risk (high, medium, low) in a sample of high-risk women. Significant variables were identified using Pearson Chi squared tests and one-way analysis of variance tests. Among 541 females surveyed, 93.0% were black and 87.7% lived in poverty. Women's poverty ($p=0.010$), employment ($p=0.012$), insurance ($p=0.024$) and homelessness status ($p<0.001$) were all significantly associated with their level of HIV risk perception. Among women with low HIV risk perception (76.7%), the majority did not know their partner's HIV status at last intercourse (68.7%, $p=0.007$), had unprotected anal/vaginal sex in the past year (86.7%, $p=0.025$), participated in sex exchange (63.4%, $p<0.001$), and did not use condoms with a partner with HIV-unknown status (87.2%, $p<0.001$). Half of women agreed or strongly agreed most people would not be friends with someone with HIV (50.4%), and 46.3% agreed or strongly agreed most people would support PLWH to live or work where they want. Compared to women with low HIV risk perception, women with high perceived HIV risk were more likely to agree or strongly agree most people would discriminate against someone with HIV (87.3% vs 76.8%) and that people who got HIV via sex exchange or drugs got what they deserve

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(46.6% vs. 25.8%). Women's perceived HIV risk was not significantly associated with these discriminatory attitudes. Despite multiple risk behaviors significantly associated with level of perceived HIV risk in the sample, the NHBS survey demonstrates many women with high risk behaviors still perceive themselves to be at low risk. Our findings highlight a complex interaction of risk perception, risk behaviors and stigma surrounding HIV in high-risk women.

Keywords

High-risk women; risk behaviors; HIV; discrimination

Introduction

In 2016, heterosexual transmission accounted for 84% of new HIV infections among U.S. women (Centers for Disease Control and Prevention [CDC], 2016). Furthermore, 61% of all new infections were seen in black women, with an incidence rate 25 times higher among black than white women (CDC, 2017).

Women's HIV risk hinges on an understanding of structural, social, attitudinal and behavioral risk factors. Perceived risk and vulnerability are necessary precursors to adopting health promotive and protective behaviors. (Rosenstock, 1974; Rogers, 1975) as individuals who feel personally threatened by a condition are motivated to take action to avoid illness. Low HIV risk perception serves as a barrier to motivating at-risk women to adopt risk-reducing behaviors (Ford, Daniel and Miller, 2006; Buzi, Weinman, and Smith, 2015).

HIV stigma and discrimination are established HIV risk factors. While existing literature has explored the role of HIV stigma on the health of people living with HIV (PLWH) and on perceived HIV risk among men-who-have-sex-with-men (Courtenay-Quirk, Wolitski and Parsons, 2006), less is known about HIV discrimination, its association with risk behaviors, and levels of perceived HIV risk among high-risk heterosexual U.S. women. Identifying factors associated with women's HIV risk perception is key for behavior change and prevention (Catania, Kegeles and Coates, 1990).

Utilizing responses from the National HIV Behavioral Surveillance survey of heterosexuals (NHBS-HET) in Detroit, Michigan, this study examines associations between perceived HIV risk and risk behaviors in a sample of high-risk adult women. Consistent with current literature, we hypothesized there would be incongruence between HIV risk perception and HIV risk behaviors among high-risk women, and that stigmatizing attitudes towards PLWH would influence women's perceived HIV risk.

Materials and methods

Data were collected from Detroit's Round 4 survey of the NHBS-HET, sponsored by the CDC and conducted using respondent-driven sampling from January to December 2016. Participants were recruited from "high-risk areas" in which 20% or more of the residents live in poverty and have a high per-capita density of heterosexually acquired HIV

transmission. Eligible participants were female, were ages 18–49 years, and reported at least one act of sex with a male partner in the last year.

The primary outcomes of interest were high-risk sexual behaviors according to perceived HIV risk, our independent variable. Perception of HIV stigma among women's community networks according to HIV risk perception was a secondary outcome of interest. Descriptive statistics were determined for all dependent variables – demographics, risk behaviors, and discriminatory attitudes – stratified by perceived HIV risk (high, medium, or low). Differences in perceived HIV risk among each categorical variable of interest were compared via Pearson Chi squared, and one-way analysis of variance tests compared continuous variables by HIV risk perception. Data analysis was performed using SPSS version 23.0 (SPSS Inc., Chicago, IL). An alpha level of 0.05 determined significance for all analyses. Use of anonymous de-identified secondary data from NHBS did not require Institutional Review Board review.

Results

Among 541 female participants, 93.0% were black (n=479) and 8.3% were Caucasian (n=43). In our sample, 72.1% (n=378) reported a high school education or less, and most participants lived in poverty (87.7%, n=455), were unemployed (74.6%, n=388), and had health insurance (89.6%, n=466). As demonstrated in Table 1, a greater proportion of women were homeless in the last year among women with self-perceived high vs. low HIV risk (68.1% vs 35.8%, $p<0.001$). In addition to homelessness, women's poverty ($p=0.010$), employment ($p=0.012$) and insurance status ($p=0.024$) were significantly associated with their level of HIV risk perception.

Multiple risk behaviors were significantly associated with women's HIV risk perception, highlighted in Table 2. Compared to women with low-risk perception, women with high-risk perception had unprotected intercourse with greater frequency (mean 20.4 vs. 3.9 times, $p=0.030$), a higher number of male sex partners in the last year (mean 171.8 vs. 11.9, $p<0.001$), and a greater number of casual male sex partners (mean 174 vs. 13.6, $p<0.001$). Fewer women knew their partner's HIV status at last intercourse among women with high vs. low HIV risk perception (10.6 vs. 31.3%, $p=0.007$). Even among women with low HIV risk perception, the majority did not know their partner's HIV status at last intercourse (68.7%, $p=0.007$), had unprotected anal or vaginal sex in the past year (86.7%, $p=0.025$), participated in sex exchange (63.4%, $p<0.001$), and did not use condoms with a partner with HIV-unknown status (87.2%, $p<0.001$).

Table 3 highlights stigmatizing attitudes toward PLWH stratified by perceived HIV risk. Half of women agreed or strongly agreed most people would not be friends with someone with HIV (50.4%), and 46.3% agreed or strongly agreed most people would support PLWH to live or work where they want. Compared to women with low HIV risk perception, women with high perceived HIV risk were more likely to agree or strongly agree most people would discriminate against someone with HIV (87.3% vs 76.8%) and that people who got HIV via sex exchange or drugs got what they deserve (46.6% vs. 25.8%). Despite these differences,

none of the discriminatory attitudes toward PLWH evaluated were significantly associated with women's perceived HIV risk.

Discussion

The 2016 NHBS-HET survey in Detroit identifies a high-risk sample of adult women exhibiting multiple high-risk sexual behaviors. Women with high-risk behaviors tended to be aware of their risk engagement and perceived themselves to be at high HIV risk. Comparatively, many women with low HIV risk perception still engaged in high-risk behaviors. Previous studies of heterosexual women have similarly found that women who engaged in high-risk behaviors were largely unaware of their risk and reported low perceived HIV risk (Buzi, Weinman and Smith, 2015; Pringle, Merchant and Clark, 2013). Moreover, although HIV stigma and discrimination were previously identified as a catalyst to HIV risk behaviors among vulnerable populations (Caldwell, Orubuloye and Caldwell, 1999), these factors did not significantly influence HIV risk perception among women in this sample.

The finding that women with high perceived HIV risk engaged in high-risk behaviors counters prior evidence that suggests that individuals who perceive themselves to be at increased risk of negative sexual health consequences are more likely to engage in risk reduction behaviors (Maharaj and Cleland, 2005; Meekers and Klein, 2002). Despite awareness of their high HIV risk, women reported continued engagement in risky behaviors, compared to those who perceived themselves to be at low risk. The extent to which HIV risk perception modifies engagement in HIV risk behaviors continues to be unclear and inconsistent (Prata, Morris, Mazive et al., 2006). HIV risk perception may not ultimately lead to reductions in high-risk behaviors, as socioeconomic, sociocultural and structural constraints represent an external locus of control that high-risk populations face, but cannot necessarily overcome (Pharr, Enejoh, Mavegam et al., 2015).

Although women perceived a high level of discrimination exists toward PLWH in general, stigma towards PLWH did not consistently influence women's HIV risk perception. Our results suggest a complex, nuanced interaction between HIV risk perception, attitudes, and HIV risk behaviors in this population. A greater percentage of women with high HIV risk perception endorsed agreement with two important stigmatizing attitudes – that most people would discriminate against someone with HIV, and that people who acquired HIV through sex exchange or drugs got what they deserve – compared to women with low perceived HIV risk. Moreover, 87.2% of women with high HIV risk perception did not use condoms with an HIV-unknown partner, and yet roughly half of these women with high perceived HIV risk believed HIV acquisition was somehow deserved (46.6%). Our findings highlight an important intersection between two important factors, one behavioral and one attitudinal, that show a clear incongruence with risk perception and arguably interact with one another to place women at increased HIV risk in this population. As experienced stigma is more common among women with greater risk behaviors (Hargreaves, et al., 2018), a woman's perception of negative experiences associated with HIV risk may influence her to disassociate herself from HIV risk and engage in high-risk behaviors. This incongruence in risk behavior, HIV risk perception, and discriminatory attitudes requires greater examination of risk pathways among heterosexual women.

These data are subject to several limitations. The cross-sectional design does not capture changes in risk behaviors and attitudes over time. The sample was recruited among urban, mostly black women in Detroit, limiting the generalizability to other populations. Furthermore, data collection methods utilized by NHBS may have inherent sampling bias and NHBS does not use standardized measures of perceived HIV risk. HIV risk perception may be an insensitive predictor of HIV risk behaviors. Despite these limitations, our findings have implications for theory-based HIV research and interventions for high-risk women.

Conclusion

There exists a need to further elucidate how the psychological construct of risk perception interacts with other known factors, including stigma, and predicts HIV risk behaviors among women. Despite theoretical rationale, heightening women's awareness and perception of their HIV risk may not necessarily result in HIV risk-reduction behaviors among high-risk women. More complex models are necessary to highlight multifactorial societal and structural influences that may mediate risk perception, risk behaviors, and the role of discrimination towards PLWH among high-risk HIV-negative heterosexual women.

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References

- Buzi RS, Weinman ML, Smith PB. (2015). HIV Risk Perceptions among African American Young Women: Factors Affecting Accuracy. *J Child Adolesc Trauma*, 8(2), 111–116. doi:10.1007/s40653-015-0039-y.
- Caldwell JC, Orubuloye IO and Caldwell P. (1999). Obstacles to behavioural change to lessen the risk of HIV infection in the African AIDS epidemic: Nigerian research Resistances to Behavioural Change to Reduce HIV/AIDS Infection in Predominantly Heterosexual Epidemics in Third World Countries, Canberra, Australia: Health Transition Centre, Australian National University, pp. 113–124.
- Catania JA, Kegeles SM and Coates TJ. (1990). Towards an understanding of risk behavior: an AIDS risk reduction model (ARRM). *Health Education Quarterly*, 17(1), 53–72. [PubMed: 2318652]
- CDC Centers for Disease Control and Prevention. (2016). Diagnoses of HIV Infection in the United States and Dependent Areas. 2015 HIV Surveillance Report, 27. doi:10.1017/CBO9781107415324.004
- CDC Centers for Disease Control and Prevention.(2017). HIV among African Americans. <https://www.cdc.gov/nchhstp/newsroom/docs/factsheets/cdc-hiv-aa-508.pdf>.
- Courtenay-Quirk C, Wolitski RJ, Parsons JT. (2006). Is HIV/AIDS stigma dividing the gay community? Perceptions of HIV-positive men who have sex with men. *AIDS Educ Prev*, 18, 56–67. [PubMed: 16539576]
- Hargreaves JR, Krishnaratne S, Mathema H, Liljeston PS, Sievwright K, Mandla N, Stangl A. (2018). Individual and community-level risk factors for HIV stigma in 21 Zambian and South African communities: analysis of data from the HPTN071 (PopART) study. *AIDS*, 32(6),783–793. doi: 10.1097/QAD.0000000000001757 [PubMed: 29369164]
- Maharaj P and Cleland J. (2005). Risk perception and condom use among married or cohabiting couples in KwaZulu-Natal, South Africa, *International Family Planning Perspectives*, 31(1), 24–29. [PubMed: 15888406]

- Meekers D and Klein M, Determinants of condom use among young people in urban Cameroon. (2002). *Studies in Family Planning*, 33(4), 335–346 [PubMed: 12553189]
- Pharr J, Enejoh V, Mavegam BO, Olutola A Karick H Ezeanolue E (2015). Relationship between health locus of control and risky sexual behaviors among Nigerian adolescents. *J AIDS Clin Res*. 2015 6; 6(6),471. doi: 10.4172/2155-6113.1000471. [PubMed: 26779383]
- Prata N, Morris L, Mazive E, Vahidnia F and Stehr M. (2006). Relationship between HIV risk perception and condom use: evidence from a population-based survey in Mozambique. *International Perspectives on Sexual and Reproductive Health*, 32(4), 192–200.
- Pringle K, Merchant RC, Clark MA. (2013). Is self-perceived HIV risk congruent with reported HIV risk among traditionally lower HIV risk and prevalence adult emergency department patients? Implications for HIV testing. *AIDS Patient Care STDs*, 27(10),573–584. doi:10.1089/apc.2013.0013. [PubMed: 24093811]
- Rosenstock IM. (1974). The Health Belief Model and preventive health behavior. *Health Educ Monogr*, 2, 354–386. doi:10.1177/109019818801500203.
- Rogers RW. (1975). A Protection Motivation Theory of Fear Appeals and Attitude Change. *J Psychol*, 91(1),93–114. doi:10.1080/00223980.1975.9915803. [PubMed: 28136248]

Table 1.

Demographic Variables by Level of Perceived HIV Risk

Level of Perceived HIV Risk		Age(years)(n=520)	Black/African-American Race(n, %(n=515))	Level of Education(n, %(n=520))	Number of dependents (median, SD)(n=520)	Homeless in last 12 months(n, %(n=520))	Poverty Status(n, %(n=519))	Employment Status(n, %(n=520))	Currently Insured(n, %(n=519))
High (n=47)		(n=520)	(n=515)	(n=520)	(n=520)	(n=520)	(n=519)	(n=520)	(n=519)
	Mean		No	Grades 1–8	2.5 (2.1)	No	No	Unemployed	No
	42.2	7(15.2)	Yes	Grades 9–11		Yes	Yes	Employed	Yes
	Median	39 (84.8)		High school/GED					
	46			Some college					
Medium (n=74)	SD 10.6			Bachelor's degree					
				Any post-graduate					
	Mean	6 (8.1)	No	Grades 1–8	1 (1.5)	No	No	Unemployed	No
	39.5	68 (91.9)	Yes	Grades 9–11		Yes	Yes	Employed	Yes
	Median			High school/GED					
Low (n=399)	38.5			Some college					
	SD 12.2			Bachelor's degree					
				Any post-graduate					
	Mean	23 (5.8)	No	Grades 1–8	2.0 (1.4)	No	No	Unemployed	No
	41.1	372 (94.2)	Yes	Grades 9–11		Yes	Yes	Employed	Yes
p-value	Median			High school/GED					
	43			Some college					
	SD 12.4			Bachelor's degree					
				Any post-graduate					
	0.422	0.056		0.146	0.754	<0.001	0.010	0.012	0.024

SD=standard deviation

Table 2.

Risk Behaviors by Level of Perceived HIV Risk

Level of Perceived HIV Risk	Ever tested for HIV (n, %)	Tested for STIs in past 12 months(n, %)	Unprotected anal/vaginal sex in past 12 months(n, %)	Ever exchange sex for goods (n, %)	Main male partner gave money/drugs for sex in past 12 months (n, %)	Number of casual male partners gave money/drugs for sex in past 12 months	Ever injected drugs(n, %)	Non-injection drug use (n, %)
	(n=517)	(n=519)	(n=520)	(n=520)	(n=65)	(n=416)	(n=520)	(n=520)
High (n=47)	No 8 (17.8) Yes 37 (82.2)	No 26 (55.3) Yes 21 (44.7)	No 0 (0.0) Yes 47 (100.0)	No Yes	3 (6.4) 44 (93.6)	0 (0.0) Median 15 SD 770.9	No 37 (78.7) Yes 10 (21.3)	No 7 (14.9) Yes 40 (85.1)
Medium (n=74)	No 14 (18.9) Yes 60 (81.1)	No 32 (43.2) Yes 42 (56.8)	No 11 (14.9) Yes 63 (85.1)	No Yes	10 (13.5) 64 (86.5)	4 (57.1) Median 5.0 SD 27.2	No 66 (89.2) Yes 8 (10.8)	No 20 (27.0) Yes 54 (73.0)
Low (n=399)	No 70 (17.6) Yes 328 (82.4)	No 255 (64.1) Yes 143 (45.9)	No 53 (13.3) Yes 346 (86.7)	No Yes	146 (36.6) 253 (63.4)	30 (54.5) Median 3.0 SD 40.1	No 357 (89.5) Yes 42 (10.5)	No 156 (39.1) Yes 243 (60.9)
p-value	0.015	0.003	0.025	<0.001	0.177	0.001	0.090	0.001

Level of Perceived HIV Risk	Number of times unprotected intercourse w/ partner in last 12 months	Number of male sex partners in past 12 months	Number of main male sex partners in past 12 months	Number of casual male sex partners in past 12 months	Knew partner's HIV status at last intercourse (n, %)	No condom use with HIV- partner(n, %)	No condom use with HIV+ partner(n, %)	No condom use with HIV-unknown partner(n, %)
	(n=100)	(n=520)	(n=442)	(n=416)	(n=520)	(n=419)	(n=422)	(n=453)
High (n=47)	Mean 20.4 Median 2.0 SD 52.4	Mean 171.8 Median 20.0 SD 737.5	Mean 5.4 Median 1.0 SD 29.4	Mean 174.0 Median 18.0 SD 753.7	No 42 (89.4) Yes 5 (10.6)	No 19 (50.0) Yes 19 (50.0)	No 36 (97.3) Yes 1 (2.7)	No 6 (12.8) Yes 41 (87.2)
Medium (n=74)	Mean 2.2 Median 2.0 SD 1.1	Mean 16.2 Median 6.0 SD 25.5	Mean 0.9 Median 1.0 SD 0.9	Mean 16.2 Median 6.0 SSD 0.9	No 57 (77.0) Yes 17 (23.0)	No 25 (45.5) Yes 30 (54.5)	No 52 (94.5) Yes 3 (5.5)	No 11 (17.5) Yes 52 (82.5)
Low (n=399)	Mean 3.9 Median 2.0	Mean 11.9 Median 4.0	Mean 1.8 Median 1.0	Mean 13.6 Median 4.0	No 274 (68.7) Yes 125 (31.3)	No 153 (46.9) Yes 173 (53.1)	No 324 (98.2) Yes 6 (1.8)	No 143 (41.7) Yes 200 (58.3)

Level of Perceived HIV Risk	Number of times unprotected intercourse w/ partner in last 12 months	Number of male sex partners in past 12 months	Number of main male sex partners in past 12 months	Number of casual male sex partners in past 12 months	Knew partner's HIV status at last intercourse (n, %)	No condom use with HIV- partner(n, %)	No condom use with HIV+ partner(n, %)	No condom use with HIV-unknown partner(n, %)
	(n=100) SD 10.6	(n=520) SD 33.0	(n=442) SD 5.6	(n=416) SD 37.1	(n=520)	(n=419)	(n=422)	(n=453)
p-value	0.030	<0.001	0.064	<0.001	0.007	0.909	0.257	<0.001

SD=standard deviation

Table 3.

Discriminatory Attitudes toward HIV Status by Level of Perceived HIV Risk

Level of Perceived HIV Risk	Most people would discriminate against someone with HIV. Do you...?	(n, %) (n=517)	Most people would support the rights of a person with HIV to live/work where they wanted to. Do you...?	(n, %) (n=518)	Most people would not be friends with someone with HIV. Do you...?	(n, %) (n=516)	Most people think people who got HIV via sex/drugs got what they deserve. Do you...?	(n, %) (n=516)
High (n=47)	Strongly Agree	24 (51.1)	Strongly Agree	4 (8.5)	Strongly Agree	14 (30.4)	Strongly Agree	10 (22.2)
	Agree	17 (36.2)	Agree	14 (29.8)	Agree	10 (21.7)	Agree	11 (24.4)
	Neither agree/disagree	4 (8.5)	Neither agree/disagree	4 (8.5)	Neither agree/disagree	3 (6.5)	Neither agree/disagree	4 (8.9)
	Disagree	2 (4.3)	Disagree	19 (40.4)	Disagree	16 (34.8)	Disagree	15 (33.3)
	Strongly disagree	0 (0.0)	Strongly disagree	6 (12.8)	Strongly disagree	3 (6.5)	Strongly disagree	5 (11.1)
Medium (n=74)	Strongly Agree	37 (50.0)	Strongly Agree	8 (10.8)	Strongly Agree	14 (18.9)	Strongly Agree	6 (8.2)
	Agree	24 (32.4)	Agree	22 (29.7)	Agree	22 (29.7)	Agree	16 (21.9)
	Neither agree/disagree	4 (5.4)	Neither agree/disagree	10 (13.5)	Neither agree/disagree	10 (13.5)	Neither agree/disagree	11 (15.1)
	Disagree	7 (9.5)	Disagree	31 (41.9)	Disagree	21 (28.4)	Disagree	25 (34.2)
	Strongly disagree	2 (2.7)	Strongly disagree	3 (4.1)	Strongly disagree	7 (9.5)	Strongly disagree	15 (20.5)
Low (n=399)	Strongly Agree	169 (42.7)	Strongly Agree	40 (10.1)	Strongly Agree	67 (16.9)	Strongly Agree	36 (9.0)
	Agree	135 (34.1)	Agree	153 (38.5)	Agree	133 (33.6)	Agree	67 (16.8)
	Neither agree/disagree	31 (7.8)	Neither agree/disagree	49 (12.3)	Neither agree/disagree	40 (10.1)	Neither agree/disagree	55 (13.8)
	Disagree	45 (11.4)	Disagree	123 (31.0)	Disagree	134 (33.8)	Disagree	181 (45.5)
	Strongly disagree	16 (4.0)	Strongly disagree	32 (8.1)	Strongly disagree	22 (5.6)	Strongly disagree	59 (14.8)
p-value		0.630		0.382		0.295		0.063