International Sexual Partnerships May Be Shaped by Sexual Histories and Socioeconomic Status

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Abstract: Exchange sex and higher education were associated with an increased likelihood of international sexual partnerships (ISPs). Exchange sex and older age were associated with an increased likelihood of condomless sex in ISPs. Educational and socioeconomic factors may create unbalanced power dynamics that influence exchange sex and condomless sex in ISPs.

International sexual partnerships are more commonplace as social interactions between the global community of men who have sex with men (MSM) increases.[1–7] Studies have observed an association between travel and engagement in sexual behaviors with elevated risk for human immunodeficiency virus (HIV) transmission.[4,5,8,9] Travel may provide a break from daily work and home life routines, which may lift social constraints on riskier sexual practices. International travel also presents a change in environment that may lead to behavioral disinhibition.[4,5,8,9] These studies, however, only provide the perspective of men traveling to international destinations. Assessing sexual behaviors with international partners from the perspective of local residents, particularly individuals who may not necessarily travel abroad, would provide important complementary data.

The iPrEx study was a randomized controlled trial to determine the efficacy of preexposure prophylaxis for preventing HIV infection.[10] Men who have sex with men and transgender women were recruited at 11 study sites in North and South America, Africa and Asia. We evaluated the prevalence and correlates of having an international sexual partnership among persons screening for the trial.

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Persons presenting at the screening visit who were male at birth, 18 years or older, reported engaging in male-to-male sex and had evidence of high risk for HIV were eligible. Individuals were classified as a transgender woman if she considered her current gender identity to be a woman or self-identified herself as transgender or a woman. Questions on lifetime history of international sexual partnerships were included in the screening instrument between May 2008 and December 2009. An international sexual partner was defined as a person who was residing mainly in a different country than the participant at the time of the sexual encounter.

The current analysis represents data from 2887 participants who completed the modified instrument. The number of participants from each site is as follows: Lima (n = 852), Iquitos (n = 319), Guayaquil (n = 528), Rio (n = 448), São Paulo (n = 108), Boston (n = 164), San Francisco (n = 201), Cape Town (n = 116), and Chiang Mai (n = 151).

Demographic characteristics and sexual histories were obtained using a computer-assisted structured interview. Data collected included age, highest education level, number and gender of lifetime sexual partners, condomless sex, sexual positioning, exchange sex, and having international sexual partners.

Multivariable logistic regression models assessed associations with international sexual partnerships and condomless sex in an international sexual partnership, adjusting for demographic characteristics significantly associated in bivariate analyses, and controlling for study site. The protocol received approval from the national government public health authorities in Peru, Ecuador, Brazil, Thailand, South Africa, and the United States, and by the ethics committee at each site.

There were 2544 MSM and 343 transgender women represented in this analysis. The median age was 26 years (IQR, 21–33 years), ranging from 18 to 68 years old. The majority had a secondary school education or higher (84%), self-identified as homosexual or gay (67%), and tested HIV-negative (91%). Nearly 60% of participants reported 20 or more lifetime sexual partners and 17% had 3 or more lifetime female sexual partners. Participants commonly engaged in versatile positioning (top and bottom) with male partners (41%). A large proportion of participants engaged in exchange sex, with 47% having been paid for sex and 20% having paid for sex. Demographic and sexual behavior characteristics of the study population are presented in Table 1.

History of an international sexual partnership was reported by 1273 (44%) participants, as shown in Table 1. A higher proportion of participants with international sexual partnerships were 32 years or older, had higher than a secondary school education, had 20 or more lifetime sexual partners, had been paid for sex, and had paid for sex compared to participants who did not. Condomless sex occurred in 48% of international sexual partnerships.

TABLE 1. Demographic Characteristics and Sexual Histories of iPrEx Participants Who Completed the Modified Screening Interview (N = 2887)

	Total (N = 2887)		International Sexual Partnership (n = 1273)		No International Sexual Partnership (n = 1614)	
	n	%	n	%	n	%
Gender						
Male	2544	88.12	1125	88.37	1419	87.92
Transgender female	343	11.88	148	11.63	195	12.08
Age						
≤ 21	603	20.89	205	16.10	398	24.66
22–25	688	23.83	286	22.47	402	24.91
26–32	718	24.87	327	25.69	391	24.23
≥ 32	738	25.56	411	32.29	327	20.26
No response	140	4.85	44	3.46	96	5.95
Highest education level						
No secondary school	233	8.07	81	6.36	152	9.42
Secondary school	1440	49.88	511	40.14	929	57.56
Higher than secondary school	995	34.46	523	41.08	472	29.24
No response	219	7.59	158	12.41	61	3.78
Earned income this month						
Yes	1505	52.13	785	61.67	720	44.61
No	1374	47.59	485	38.1	889	55.08
No response	8	0.28	3	0.24	5	0.31
Sexual orientation						
Gay/homosexual	1948	67.47	888	69.76	1060	65.68
Bisexual	659	22.83	258	20.27	401	24.85
Heterosexual	74	2.56	19	1.49	55	3.41
Other	206	7.14	108	8.48	98	6.07
HIV status						
Negative	2632	91.17	1150	90.34	1482	91.82
Positive	255	8.83	123	9.66	132	8.18
Lifetime sexual partners						
< 20	1156	40.04	332	26.08	824	51.05
≥ 20	1728	59.85	941	73.92	787	48.76
No response	3	0.1	0	0	3	0.19
Lifetime female sexual partners						
< 3	2385	82.61	1000	78.55	1385	85.81
≥ 3	498	17.25	270	21.21	228	14.13
No response	4	0.14	3	0.24	1	0.06
Sexual positioning with male partners						
Top	819	28.37	294	23.10	525	32.53
Bottom	807	27.95	301	23.64	506	31.35
Versatile	1185	41.05	653	51.30	532	32.96
No response	76	2.63	25	1.96	51	3.16
Ever paid for sex						
Ye	575	19.92	311	24.43	264	16.36
No	2307	79.91	959	75.33	1348	83.52
No response	5	0.17	3	0.24	2	0.12
Ever been paid for sex						
Yes	1361	47.14	671	52.71	690	42.75
No	1525	52.82	602	47.29	923	57.19
No response	1	0.03	0	0	1	0.06
Unprotected sex in ISP						
Yes			610	47.96	n/a	
No			663	52.04		

Figure 1 presents the proportions of participants with international sexual partnerships and those who engaged in exchange sex. Study sites with the highest proportion of participants with international sexual partnerships were San Francisco (78%) and São Paulo (65%); the lowest proportions were in Lima (34%) and Iquitos (27%). Study sites with the highest proportion of participants who had been paid for sex were Lima (57%) and Iquitos (53%); the lowest proportions were in Cape Town (28%), San Francisco (28%), and São Paulo (19%). Study sites with the highest proportion of participants who had paid for sex were São Paulo (34%) and Rio de Janeiro (31%); the lowest proportions were in Iquitos (13%) and Lima (14%). In bivariate analyses, transgender women were more likely to have been paid for sex compared to MSM (77.0% vs 43.1%; $P < 0.001$) but were less likely to have paid for sex compared to MSM (14.5% vs 20.6%; $P = 0.008$).

Adjusted odds ratios for demographic characteristics and sexual histories associated with ever having an international sexual partnership and condomless sex in an international sexual partnership are presented in Table 2. Ever been paid for sex, 20 or more lifetime sexual partners, 3 or more lifetime female sexual partners, and higher education were associated with an increased likelihood of having international sexual partnerships. Ever been paid for sex and older age were associated with an increased likelihood of having condomless sex in an international sexual partnership, whereas higher education was associated with a decreased

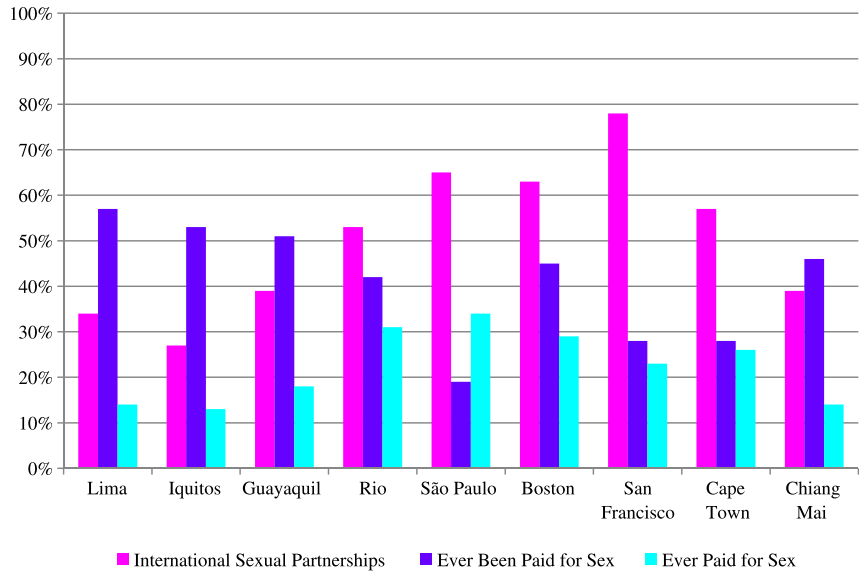

Figure 1. History of international sexual partnerships, ever been paid for sex and ever paid for sex among iPrEx participants who completed the modified screening interview, by study site (N = 2887).

likelihood. History of international sexual partnerships was not associated with HIV infection (odds ratio, 1.17; $P = 0.19$).

International sexual partnerships were common among MSM and transgender women who screened for the iPrEX trial, reported by about half of the participants. Among individuals who reported an international sexual partnership, nearly half engaged in condomless sex in those partnerships and more than half had been paid for sex.

International sexual partnerships were observed more frequently among participants from study sites considered popular tourist destinations. Individuals living in these cities are more likely to encounter international travelers than individuals from places without a thriving tourist industry. A recent study of gay and bisexual men found the majority of sexual activity engaged in while traveling internationally were with persons met at the destination they were visiting.[11]

Exchange sex, particularly having been paid for sex, was frequently reported by participants. Three quarters of transgender women reported having been paid for sex. Across all study sites, approximately half of participants reported having been paid for sex. The frequency was highest in Peru, because more than half of participants in Lima and Iquitos reported having been paid for sex. Exchange sex occurs often in low income areas of Peru.[12] A recent study of high-risk MSM and transgender women in Lima, Pucallpa, and Iquitos found that 41% of participants reported engaging in exchange sex with the last 6 months, a proportion similar to what was observed in the current study.[13]

It is likely that a substantial proportion of international sexual partnerships were with travelers visiting participants' local environment. Our study examined the association between international sexual partnerships and exchange sex from the perspective of local participants, which differs from previous studies examining international sexual partnerships from the point of view of travelers visiting foreign destinations. A study of British residents traveling overseas found that having new partners overseas was associated with men who paid for sex.[4] A U.S. study found that 13% of MSM who visited gay resorts or hotels had been paid for sex and 17% had paid for sex.[9] Findings from the perspectives of both the visiting international traveler and the local resident suggest exchange sex is not uncommon in international partnerships.

Having been paid for sex and higher education level were associated with having international sexual partnerships. Having been paid for sex was associated with an increased likelihood of having condomless sex in an international sexual partnership, whereas higher education was associated with a decreased

TABLE 2. AOR and *P* values for demographic characteristics and sexual histories associated with ever having an ISP and condomless sex in an ISP among iPrEx participants who completed the modified screening interview (N = 2887)

	Ever Having an ISP		Condomless Sex in an ISP	
	AOR	***P***	**AOR**	***P***
Demographic characteristics				
Secondary school	1.78	0.01	0.54	0.023
Higher than secondary school	3.36	<0.001	0.54	0.027
Older age	—	—	1.02	0.009
Sexual histories				
≥ 20 lifetime sexual partners	2.21	<0.001	—	—
≥ 3 lifetime female sexual partners	1.57	<0.001	—	—
Ever been paid for sex	2.22	<0.001	1.57	0.002

AOR, adjusted odds ratio.

likelihood of having condomless sex. These findings suggest the international sexual partnerships our study participants engaged in might be delineated into 2 different categories based on the concept of power dynamics within relationships. Power imbalances often exist in situations involving exchange sex, because individuals may feel pressured to engage in riskier sexual behaviors for financial or material compensation.[12] Unbalanced power dynamics in exchange sex might account in part for our observation that participants who had been paid for sex were more likely to engage in condomless sex in an international sexual partnership. Educational and socioeconomic factors may also influence the power dynamics in relationships, including safer sex negotiation.[14,15] Study participants with higher education levels may have engaged in international sexual partnerships with more balanced power structures, which might facilitate safer sex negotiations and thus result in a lower likelihood of condomless sex occurring.

One fifth of participants who had international sexual partnerships reported 3 or more lifetime female sexual partners. This finding raises the interesting question of whether participants who engage in exchange sex might have been more likely to be behaviorally bisexual. They may be meeting male international sexual partners through their sex work but prefer to be with women. We were unable to evaluate this potential association in the present analysis due to insufficient sample size and power but the hypothesis merits further exploration in future studies.

A limitation of this study is that only a few questions on international sexual partnerships were added to a preexisting survey instrument designed for a different research aim. Data on whether the international partner was met while the participant was in their local environment or traveling abroad, number of such partnerships, gender of the partner, and partnership type, for example, main or casual, were not obtained. We also were not able to discern whether the exchange sex reported by participants occurred within international sexual partnerships or whether the condomless sex in an international partnership reported by participants occurred in the context of exchange sex.

Our findings suggest that international sexual partnerships may be socially shaped by sexual histories and socioeconomic indicators. More highly educated or affluent participants may be meeting international sexual partners both locally in the city where they reside and when they travel abroad. Education level and poverty may also influence sexual risk behavior, HIV-risk perception and health-seeking behavior. Poorer or less educated participants may be more likely to engage in exchange sex and high-risk sexual activities with more affluent tourists who are visiting low-income locales. They also may be unaware of the potential risk of acquiring HIV from their international sexual partners. As a consequence, these individuals may not seek HIV testing and thereby may be contributing to the onward transmission of HIV. These undiagnosed infections pose a challenge to the successful implementation of global treatment and prevention strategies such as treatment as prevention and UNAIDS's 90-90-90 targets for diagnosis, linkage to care and treatment, and viral suppression.[16–19] Obtaining a better understanding of how power dynamics influence sexual risk behavior within international sexual partnerships may help inform HIV prevention efforts globally.

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