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Men Who Have Sex With Men (MSM) and Risk Factors Associated With Condom Use at Last Sexual Intercourse With a Man and a Woman in Senegal

ELIHoS project ANRS 12139

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Background

Men who have sex with other men (MSM) are in Africa a vulnerable population which has up until now been insufficiently explored. In Senegal, HIV prevalence among MSM was 21.8% in 2007. Given the high rate of bisexuality (73% of MSM had had both male and female partners over the past year), it is important to understand their risk-taking behaviours regarding both men and women.

Methods

A socio-behavioural survey was carried out in 2007 among 501 MSM recruited using the snowball sampling method in three places (Dakar, Mbour/Thiès, and Saint-Louis). We explore in this article why a condom was not used during last sexual intercourse with a man and with a woman, bearing in mind the respondent's characteristics, type of relationship and the context of the sexual act. We constructed a multiple logistic-regression model with all factors with a p-value less than 20% in the bivariate analysis and modified the model through backwards elimination, which removed explanatory variables with a p-value greater than 0.20.

Unprotected anal sex at last sexual intercourse with a man

	Univariate analysis			Multivariate logistic regression		
	%	n	χ^2 p-value	aOR	95% CI	p-value
Age Group			0.000			0.193
18-19 years	36.5	35/96		ref.		
20-24 years	24.3	46/189		0.87	0.46-1.66	0.666
25-29 years	13.5	15/111		0.54	0.23-1.26	0.151
30-34 years	12.3	8/65		0.44	0.16-1.22	0.113
35 years or over	32.1	9/28		1.42	0.44-4.62	0.562
Occupation			0.032			0.157
None	37.0	10/27		2.98	1.10-8.10	0.032
Student / Apprentice	29.4	37/126		0.98	0.54-1.81	0.958
Frequent profession among MSM	16.7	18/108		0.91	0.48-1.75	0.780
Other profession	21.1	48/228		ref.		
Global awareness indicator			0.000			0.000
Don't know a place to be tested for HIV	40.8	31/76		ref.		
Know a place to be tested for HIV (a)	35.7	40/140		0.92	0.48-1.73	0.784
(a) + has participated in an MSM prevention program (b)	15.1	14/93		0.31	0.14-0.68	0.004
(a) + (b) + is member of an MSM organisation	10.0	27/114		0.20	0.10-0.41	0.000
Age of the partner			0.000			0.0863
19 years or under	42.1	24/57		1.84	0.86-3.94	0.117
20-24 years	26.8	40/149		ref.		
25-29 years	16.4	23/140		0.61	0.32-1.18	0.141
30 years or older	18.3	26/142		0.93	0.47-1.82	0.822
Location of sexual act			0.000			0.001
Respondent's home	20.1	20/149		ref.		
Partner's home	21.2	56/264		1.02	0.58-1.80	0.940
Public place / Outside	64.5	20/31		5.70	2.21-14.71	0.000
Hotel / A friend's home	15.6	7/45		0.66	0.25-1.75	0.405
Partner's HIV status known			0.007			0.179
No	24.7	110/445		ref.		
Yes	6.8	3/44		0.42	0.12-1.49	0.179
Total	23.1	113/489				

Base: MSM who had had at least one male sexual partner over the past year.
aOR: adjusted Odds ratio. 95% CI: 95% Confidence Interval. ref.: reference.

Conclusion

Whether intercourse takes place with a man or with a woman, the fact of having participated in a prevention program specifically targeting MSM constitutes a major prevention factor. This tends to show both the pertinence and effectiveness of these programs, and the necessity to pursue and to extend them.

However, these programs targeting MSM must address their heterosexual practices and the specific risks involved.



Senegal Results

The sample was young (80% were under thirty) and fairly well-educated (47% had reached secondary school level or higher education). Ninety per cent lived with their family, and 41% declared themselves to be members of an MSM association. 489 men reported that they had had sexual intercourse at least once with another man during the previous year, and 358 with a man and with a woman. With another man, the main factors of not using a condom are sexual intercourse in a public place (adjusted OR = 6.8), and non-participation in an MSM prevention program (adj. OR = 3.1). The risks, although non-significant at 5%, are higher among younger men (18-19 years) and older men (35 years and over), and among vulnerable people (unemployed). With a woman, sexual intercourse with the respondent's wife is hardly ever protected (2%). Otherwise, risks are high when the female partner is very young (15 years or younger, adj. OR = 5.3) and when the man has not participated in an MSM prevention campaign (adj. OR = 2.3).

Unprotected anal or vaginal sex at last sexual intercourse with a woman

	Univariate analysis			Multivariate logistic regression		
	%	n	χ^2 p-value	aOR	95% CI	p-value
Global awareness indicator			0.004			0.005
Don't know a place to be tested for HIV	53.3	32/60		ref.		
Know a place to be tested for HIV (a)	43.8	46/105		0.80	0.40-1.61	0.532
(a) + has participated in an MSM prevention program (b)	28.8	19/66		0.34	0.15-0.78	0.011
(a) + (b) + is member of an MSM organisation	29.9	38/127		0.37	0.18-0.74	0.005
Type of partner			0.000			0.000
Regular partner	30.1	56/186		ref.		
Occasional partner	36.6	53/145		1.48	0.89-2.45	0.130
Spouse	96.3	26/27		89.68	11.32-710.18	0.000
Age of the partner			0.000			0.000
15 years or under	77.4	24/31		6.38	2.45-16.59	0.000
16-19 years	35.7	55/154		ref.		
20-24 years	35.7	32/95		0.96	0.54-1.72	0.890
25 years or older	30.8	24/78		0.92	0.26-1.05	0.068
Total	37.7	135/358				

Base: MSM who had had both male and female sexual partners over the past year.
aOR: adjusted Odds ratio. 95% CI: 95% Confidence Interval. ref.: reference.