

Factors Associated with High Risk Sexual Behaviors Among Youth In Rwanda: A Behavioral Surveillance Survey

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Abstract

Worldwide, about 40% of HIV infections occur among young people aged 15 to 24. Risk factors for HIV infection in youth include early sexual debut, having multiple sexual partners, engaging in unprotected sexual intercourse, engaging in sex with older partners and consumption of alcohol and illicit drugs. Worrisome trends in HIV transmission in certain young high-risk groups, especially in urban areas. As part of the Rwanda Behavioral Surveillance Survey (BSS), we assessed factors associated with high risk sexual behaviors among youth in Rwanda where a cross-sectional integrated behavioral survey in 15-to-24-year-old Rwandans who had never married and were not cohabitating was conducted using a Questionnaires collecting information on demographic characteristics and sexual and reproductive history among others. The analysis of factors associated with the risk sexual behaviours among youth who had reported having sex in the last 12 months shows that by comparing male to female, the gender was associated with the following risk behaviours: early sexual debut (Odds Ratio (OR): 2.4 and Confidence Interval (CI) 95%:1.4 - 4.0), having paid sex (OR: 1.629 and CI 95% :1.049 - 2.530), inconsistent condom use (OR:1.873 and CI 95%:1.278 - 2.745) and having ever had forced sex (OR: 0.152 and CI 95%:0.0777 - 0.298). Comparing age group between 20-24 to 15-19 findings show that it was associated with early sexual debut (OR :4.2 and CI 95%:2.5 - 7.1). Comparing other categories of education to none education level the results show that secondary level (OR: 3.236 and CI 95%:1.416 - 7.396) and high education (OR: 7.117 and CI 95%: 2.167 - 23.38) are associated with consistent condom use. Comparing youth located in urban area (OR: 2.262 and CI 95%:1.372 - 3.730) to youth located in rural area (OR : 0.323 and CI 95%:0.141 - 0.738) the residence is associated with consistent condom use and had been forced to have sex. Comparing the categories of the province to Kigali north is associated with commercial sex (OR : 2.512 CI 95%:1.214 - 5.199), Western province (OR: 0.251 and CI 95%:0.0819 - 0.767) and Southern Province (OR:0.319 and CI 95%:0.119 - 0.857) are associated with had been forced to have sex.

Keywords: High Risk, Sexual Behaviors, Youth, Rwanda

I. Introduction

Worldwide, the United Nations Joint Programme on HIV/AIDS (UNAIDS) estimates that that more than 1 million new HIV infections occur in the 15–24 age group each year, representing over 40 % of worldwide new infections and of the 15–24 year olds living with HIV, 63 per cent live in sub-Saharan Africa (1-2). Risk factors for HIV infection in youth include early sexual debut, having multiple sexual partners, engaging in unprotected sexual intercourse, engaging in sex with older partners and consumption of alcohol and illicit drugs (2-6). In Africa, there are worrisome trends in HIV transmission in certain young high-risk groups, especially in urban areas (7).

Rwanda has a generalized HIV epidemic and is one of the countries most affected by HIV in sub-Saharan Africa (1). The 2010 Rwanda Demographic and Health Survey found an HIV prevalence of 3% among

persons 15-49 years old. In addition, this survey found that 17% of women 18-24 had had sexual intercourse before 18 years of age and 4% had had sex before 15 years of age. In contrast, 27% of 18-to-24-year-old men had had sex before 18 years of age and 11% before age 15 (2). Among never-married women and men between 15 and 24 years old who had had sex in the past 12 months, 42% females and 66% of males had used condoms (2)

The Rwanda Behavioral Surveillance Survey was conducted in 2009, as part of the UNAIDS recommendation to reinforce and enable “second generation” monitoring systems that integrates the collection of behavioral data. In order to understand the dynamics of the HIV epidemic and sexual behaviors of youth at risk of HIV infection, we assessed factors associated with high risk sexual behaviors among youth in Rwanda.

The 2009 BSS collected sexual behavior information on a nationally representative sample of 6,731 youth between the ages of 15 to 24 years of whom 4,232 (63%) were females and 2,499 (37%) were males. In these youth, 1,295 (19.2%) reported ever having sex, of which 670 (51.7%) reported having sexual intercourse in the 12 months preceding the survey.

In order to understand the prevalence of HIV infection and sexual behaviors of youth at risk of HIV infection, we assessed factors associated with high-risk sexual behaviors in a nationally representative sexually active youth in Rwanda.

II. RESULT

Demographics and background characteristics

The 2009 BSS collected sexual behavior information on a nationally representative sample of 6,731 youth between the ages of 15 to 24 years of whom 4,232 (63%) were females and 2,499 (37%) were males. For the purpose of this study, we looked at sexual behaviors among youth respondents and analyzed the characteristics of youth who ever had sex.

Table 1 demonstrates demographic characteristics of youth who reported ever having sex, and those that reported having sex in the last 12 months.

Among those youth who reported ever had sex that were 2010 in total, about 670 (33.3%) reported having sexual intercourse in the 12 months preceding the survey. Among youth who reported ever had sex, 1,148 (57.1%) were in age groups of 20-24 and 862 (42.9%) in age group of 15-19. In youth who had sex in the last 12 months, 237 (35.4%) were 15-19 years and 433 (64.6%) were in the age group 20-24 years. Among youth who reported ever had sex, 690 (34.3%) were from Kigali, 365 (18.2%) were from Southern Province, 352 (17.5%) were from Eastern Province, 276 (13.7%) were from the Western Province and 327 (16.3%) were from Northern Province. Among those youth who had had sex in the last 12 months, 282 (42.1%) were from Kigali, 112 (16.7%) from Southern Province, 102 (15.2%) from East, and 83 (12.4%) from West and 91 (13.6%) from Western Province. Majority of respondents 1210 (60.2%) among youth who ever had sex had reached primary school, and it was 379 (56.6%) in those that reported had sex in the last 12 months. A few of respondents had reached tertiary/higher education 70(3.5%) and 39(5.8%) for those that ever had sex and those that reported having sex the last 12 months respectively.

Among youth who reported ever having sex, 535 (26.6%) reported using a condom at first sex, and in those that reported having sex in the last 12 months, 219 (32.8%) reported using a condom at first sex. A high number of youth reported ever having been forced to have sex. In youth who reported ever having sex, 95 (14.2%) reported ever having been forced to have sex, and in those that had had sex in the previous 12 months, 88 (13.9%) reported ever had been forced to have sex respectively. Among the youth that reported ever had sex, 495 (24.6%) reported had had sex before 15 years old and in those that

reported having sex the previous 12 months, 79 (11.8%) reported that they had sex before age of 15 years. Strikingly, among youth who reported having sex in the last 12 months, 123 (21.4%) reported having had commercial sex. Also, in the same group, 48.4% reported having used condoms consistently.

Table 1 Demographic characteristics and Risky Sexual Behaviors among Youth

	Had Sex Before Age 15 N=670		Had commercial sex in the last 12 months N=670		Consistent condom use in the last 12 months 4		Ever been forced to have sex N=670	
	Yes (n= 79)		Yes (n= 123)		Yes (n = 277)		Yes (n = 88)	
	n	%	n	%	n	%	n	%
Overall	79	12.1	123	18.36	277	41.34	88	13.13
Gender								
Female	394	8.9	394	15.23	394	36.8	394	19.29
Male	276	15.9	276	22.83	276	47.83	276	4.35
Age group								
15-19 yrs	237	21.52	237	17.72	237	38.82	237	14.77
20-24 yrs	433	6.47	433	18.71	433	42.73	433	12.24
Education level								
None	42	7.14	42	26.19	42	30.95	42	11.9
Primary	379	14.78	379	16.89	379	36.41	379	16.39
Vocational	40	2.5	40	20	40	47.5	40	10
Secondary	170	11.18	170	18.82	170	49.41	170	8.82
Higher education	39	0	39	20.51	39	58.97	39	5.13
Employed								
Yes	302	11.92	302	22.19	302	44.7	302	12.58
No	367	11.72	367	14.99	367	38.69	367	13.62
Location								
Rural	292	14.04	292	15.07	292	49.21	292	11.64
Urban	378	10.05	378	20.9	378	31.16	378	15.07
Province								
East	102	22.55	102	11.76	102	38.24	102	15.69
Kigali	282	9.57	282	19.86	282	47.87	282	13.83
North	83	13.25	83	28.92	83	38.55	83	13.25
West	91	9.89	91	12.09	91	31.87	91	8.79
South	112	8.04	112	17.86	112	37.5	112	12.5

Source: BSS Youth Rwanda

Table 1 looked at the demographic characteristics and Risky Sexual Behaviors among Youth Respondents of the Behavioral Surveillance Survey. On further analysis if youth who reported ever had sex, 79 (12.1%) reported had sex before age 15 years, 123 (18.4%) reported having had commercial sex and 277(48.3%) reported having consistently used condoms, whereas 88 (13.1%) reported ever having been forced to have sex.

The percentage of youth who had sex before 15 years in male is 15.9% and 8.9% in female. Among youth who reported that they had sex in last 12 months, 22.8% of male and 15.2% female reported had had commercial sex in the last 12 months; and 47.8% of male and 36.8% of female reported that they had consistently used condom in the last 12 months, 4.4% of male and 19.3% of female reported having been forced to have sex.

The percentage of youth in age groups of 15-19 years and 20-24 who had reported having sex before 15 years old were 21.5% and 6.5% respectively. The youth who reported having commercial sex in the last 12 months were respectively 17.7 and 18.7 among the youth in the age group 15-19 years and 20-24 years old. The consistent condom use in the age group 15-19 years was 38.8% and 42.7% in age group of 20-24. Among the youth who had reported ever had sex in the last 12 month 14.8% of age group 15-19 and 12.2% in the age group 20-24 reported to had been forced to have sex.

Among youth who reported having had sex in the last 12 months and had sex before 15 years, 7.1% were illiterate, 14.8% attended primary level, 2.5% had vocational level, 11.2% had secondary level and there was no youth higher education (0%). In the youth who reported to have had commercial sex in the last 12 month 26.2% were illiterate, 16.9 had reached primary level, 20% had vocational level, 18.8 had secondary level and 20.5% had higher educational level. The youth who had reported to had used condom consistently 31% were illiterate, 36% attended primary level, 47.5% had vocational level, 49.4% had secondary level and 59% had higher education level. In the youth who reported to have had been forced to have sex 11.9% were illiterate, 16.4% had reached primary level, 10% had vocational level, 8.8 had secondary level and 5.1% had higher educational level.

Among youth who reported having had sex in the last 12 months and had sex before 15 years, 11.9% were employed, 11.7% were not employed. In the youth who reported to have had commercial sex in the last 12 month 22.2% were employed and 15% were not employed. The youth who had reported to had used condom consistently 44.7% were employed and 38.7% were not employed. In the youth who reported to have had been forced to have sex 12.6% were employed, 13.6% were not employed.

Among youth who reported having had sex in the last 12 months and had sex before 15 years, 14.0% were located in rural area, 10.0% were located in the urban area. In the youth who reported to have had commercial sex in the last 12 month 15.1% were located in rural area, 20.9% were located in the urban area. The youth who had reported to had used condom consistently 49.2% were located in rural area, 31.2% were located in the urban area. In the youth who reported to have had been forced to have sex 11.6% were located in rural area, 15.1% were located in the urban area.

Among youth who reported having had sex in the last 12 months and had sex before 15 years, 22.5% were located in Eastern province, 9.6% were in Kigali, 13.2% were in Northern province, 9.9% in Western province and 8.0% in southern province. In the youth who reported to have had commercial sex in the last 12 month 11.8% were located in Eastern province, 19.9% were in Kigali, 28.9% were in Northern province, 12.1% in Western province and 17.9% in southern province. The youth who had reported to had used condom consistently 38.2% were located in Eastern province, 47.9% were in Kigali, 38.6% were in Northern province, 31.9% in Western province and 37.5% in southern province. In the youth who reported to have had been forced to have sex 15.7% were located in Eastern province, 13.8% were in Kigali, 13.2% were in Northern province, 8.8% in Western province and 12.5% in southern province.

Table 2 Factors Associated with High Risk Sexual Behaviors Among Youth in Rwanda

Background characteristics	Sex Before 15		Had Commercial Sex		Consistent Condom use		Forced sex	
	aOR	95% CI	aOR	95% CI	aOR	95% CI	aOR	95% CI
Gender								
Female (Reference)								
Male	2.4***	1.4 - 4.0	1.629* *	1.049 - 2.530	1.873* **	1.278 - 2.745	0.152* **	0.0777 - 0.298
Age group								
15-19 (Reference)								
20-24	4.2***	2.5 - 7.1	1.027	0.660 - 1.597	1.049	0.718 - 1.533	0.899	0.545 - 1.484
Education level								
None (Reference)								
Primary					1.517	0.718 - 3.202	1.441	0.513 - 4.048
Vocational						0.681 - 4.942	0.917	0.208 - 4.031
Secondary					3.236* **	1.416 - 7.396	0.774	0.243 - 2.466
Higher Education					7.117* **	2.167 - 23.38	0.369	0.0616 - 2.208
Occupation								
Not Employed (Reference)								
Employed	1.1	0.6 - 1.8	0.699	0.454 - 1.078	0.700*	0.471 - 1.041	1.105	0.664 - 1.841
Residence								
Rural (Reference)								
Urban	0.7	0.4 - 1.5	1.653*	0.913 - 2.991	2.262* **	1.372 - 3.730	0.323* **	0.141 - 0.738
Province								
Kigali (Reference)								
East	1.5	0.7 - 3.6	0.525	0.238 - 1.159	0.823	0.439 - 1.544	0.609	0.237 - 1.568
North	0.9	0.3 - 2.5	2.512*	1.214 - 5.231	1.131	0.576 - 2.231	0.622	0.230 - 1.711

		2.3	*	5.199		2.224		1.681
West		0.2 -		0.291 -		0.327 -	0.251*	0.0819
	0.6	1.7	0.687	1.624	0.648	1.283	*	- 0.767
South		0.2 -		0.505 -		0.528 -	0.319*	0.119 -
	0.6	1.6	1.017	2.047	0.978	1.815	*	0.857

*** p<0.01, **
 p<0.05, * p<0.1
 Source:BSS Youth, Rwanda

The analysis of factors associated with the risk sexual behaviours among youth who had reported having sex in the last 12 months shows that by comparing male to female, the gender was associated with the following risk behaviours: early sexual debut(OR: 2.4 and CI 95%:1.4 - 4.0) , having paid sex (OR: 1.629 and CI 95% :1.049 - 2.530), inconsistent condom use(OR:1.873 and CI 95%:1.278 - 2.745) and having ever had forced sex (OR: 0.152 and CI 95%:0.0777 - 0.298).Comparing age group between 20-24 to 15-19 findings show that it was associated with early sexual debut (OR :4.2 and CI 95%:2.5 - 7.1). Comparing other categories of education to none education level the results show that secondary level (OR: 3.236 and CI 95%:1.416 - 7.396) and high education (OR: 7.117 and CI 95%: 2.167 - 23.38) are associated with consistent condom use. Comparing youth located in urban area (OR: 2.262 and CI 95%:1.372 - 3.730) to youth located in rural area (OR : 0.323 and CI 95%:0.141 - 0.738) the residence is associated with consistent condom use and had been forced to have sex. Comparing the categories of the province to Kigali north is associated with commercial sex (OR : 2.512 CI 95%:1.214 - 5.199),Western province (OR: 0.251 and CI 95%:0.0819 - 0.767) and Southern Province (OR:0.319 and CI 95%:0.119 - 0.857) are associated with had been forced to have sex.

III. CONCLUSION

The factors associated with high risk sexual behaviour among youth in Rwanda found that having sex before 15 years old, had commerce sex, inconsistent condom use and forced sex are factors associated with high risk sexual behaviour. Looking on demographic characteristics education, age and area of residence are likely to be strong associated to risk sexual behaviour.

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