

Characteristics of Male Sexual Partners and Knowledge of Male Partner's HIV Status among Young Women Who Sell Sex enrolled in an evaluation of DREAMS in Zimbabwe, 2017

Bernadette Hensen¹, Sian Floyd¹, Sungai Chabata², Tarisai Chiyaka², Joanna Busza¹, Phillis Mushati², Isolde Birdthistle¹, James Hargreaves¹, Frances Cowan^{2,3}.

1. London School of Hygiene & Tropical Medicine, London United Kingdom; 2. The Centre for Sexual Health and HIV/AIDS Research (CeSHHAR), Harare, Zimbabwe; 3. Liverpool School of Tropical Medicine, Liverpool, UK

BACKGROUND

Across sub-Saharan Africa, young women who sell sex (YWSS) are at high risk of HIV infection. To reduce the risk of HIV among adolescent girls and young women (AGYW), including YWSS, the DREAMS (Determined, resilient, empowered, AIDS-free, mentored and safe) partnership is delivering comprehensive HIV prevention programming in ten countries in the region.

Included in the DREAMS package are interventions to reduce the risk of the male sexual partners (MSP) of AGYW. The DREAMS partnership aims to characterize MSP of AGYW in order to better understand how to reach them with interventions, including HIV testing and treatment services.

In Zimbabwe, YWSS are among the target population for DREAMS. To evaluate the impact of DREAMS among YWSS, cohorts of YWSS were recruited using respondent-driven sampling (RDS) in six sites across Zimbabwe.¹ We used data from enrolment into this evaluation of DREAMS to describe characteristics of the MSP of YWSS recruited to the evaluation study and to explore whether these were associated with women's knowledge of the HIV status of their MSP.

METHODS

STUDY LOCATION

The RDS enrolment survey was conducted in six sites, two sites where DREAMS was offered and four non-DREAMS comparison sites.¹

DATA COLLECTION

RDS was initiated by 44 women (termed "seed participants") who were representative of the typology of YWSS in all sites. Women participating in the survey were asked to complete a questionnaire on demographics, sexual behaviours, and three most recent sexual partners. Women were asked whether they defined these partners as: boyfriend, regular/steady partner, husband, casual partner known before sex, casual partner not known before sex, sex work client, or could use another definition if these were not appropriate.

DATA ANALYSIS

We describe characteristics of women recruited by seed participants.

Excluding seed participants from analyses, we described and compared the:

1. characteristics of and behaviours with MSP, and
2. reported knowledge of the HIV status of MSP

by whether women defined the MSP as a regular sexual partner or husband (regular), casual/one-off sexual partner (casual), or a client.

We used logistic regression to investigate whether the characteristics of and behaviours with MSP were associated with reported knowledge of HIV status of MSP.

All analyses were RDS-2 weighted (that is, weighted by the inverse of women's reported YWSS network size), and adjusted for study site and women's age.

RESULTS

CHARACTERISTICS OF AND BEHAVIOURS WITH MALE SEXUAL PARTNERS

Excluding seed participants, 2387 women were recruited: 36.7% (n=819/2387) were aged 18-19 years, 57.5% (n=1397/2387) reported being single and never married, and 67.3% (n=1637/2387) self-identified as a female sex worker (FSW). Women reported on 6929 MSP, of which 47.9% (n=3,144) were defined as a regular partner.

Among women self-identifying as FSW, 31.8% (n=1707) of MSP were clients compared to 13.5% (n=369) of MSP among women not self-identifying as FSW.

Table. Knowledge of MSP's HIV status, and characteristics of and behaviours with male sexual partners by partner type (N=6929)

	Regular (N=3144)		Casual (N=1692)		Client (N=2093)	
	Number	Wgtd%	Number	Wgtd%	Number	Wgtd %
Knows partner's HIV status¹						
No	1898	62.7	1518	90.2	1796	87.1
Yes	1241	37.3	172	9.8	297	12.9
Partner's age (years)						
Younger/same age	691	25	352	21.7	281	14.4
Up to 5yrs older	1236	39.7	470	29.3	622	29.4
5-10yrs older	883	24.6	480	27.7	717	32.6
>10yrs older	271	8.3	235	13.2	311	16.5
Doesn't know/refused to respond	63	2.3	155	8.1	162	7.1
Whether expects to have sex with MSP again²						
No	635	23.4	645	39.1	447	21.9
Yes	2462	76.6	978	60.9	1587	78.1
Whether last sex involved an exchange³						
No	590	20.0	108	6.3	61	2.9
Yes	2544	80.0	1581	93.7	2032	97.1
Confident in negotiating condom use with partner⁴						
Strongly agree	812	22.7	711	36.2	730	31.7
Agree	1767	58.8	869	57.6	1231	62
Disagree	408	14.5	81	5.0	111	5.4
Strongly disagree	149	4.3	27	1.2	21	1.0
Confident she can avoid sex with partner if refuses condom use⁵						
Strongly agree	672	19.9	681	34.6	667	29
Agree	1640	54.1	837	55.6	1209	60.9
Disagree	560	19.3	120	7.5	153	7.7
Strongly disagree	261	8.8	50	2.3	61	2.4
Drank alcohol before last sex⁶						
No	2665	86.3	1336	80.5	1533	76.8
Yes	470	13.7	353	19.5	560	23.2

Key: 1. 8 missing data; 2. 174 missing data; 3. 13 missing data; 4. 12 missing data; 5. 18 missing data; 6. 12 missing data; Wgtd% - weighted percent

The most commonly cited place where women first met MSP was in the market place/street (n=2711; 39.6%). Where last sex with the MSP involved an exchange (n=6157; 88.0%), the most commonly cited item exchanged was money (n=5503/6157; 89.3%) followed by groceries/food (n=798/6157; 13.2%).

Relative to regular partners:

- casual partners and clients were more likely to be ≥10 years older;
- women were more likely to agree that they were confident in negotiating condom use with casual partners and clients, and
- women were more likely to have had alcohol before last sex with a casual partner and client (Table).

KNOWLEDGE OF HIV STATUS OF MSP BY PARTNER TYPE

Overall, women reporting knowing the HIV status of 23.8% (n=1710) of MSP, among whom 8.9% were reported HIV-positive.

FSW reported knowing the HIV status of 22.2% (n=1111/4839) of MSP; women who did not self-identify as FSW the HIV status of 27.0% (n=577/2030) of MSP.

Adjusting for women's age and study site, women were less likely to report knowing the HIV status of:

- casual partners and clients relative to regular partners (adjusted odds ratio (adjOR) = 0.19; 95% confidence interval (95%CI) 0.15, 0.23 and adjOR 0.23 95%CI 0.19, 0.28, respectively).
- MSP who were 10-years or more older than themselves or whose age they refused to report or did not know;
- MSP with whom they reported that the last sex involved an exchange of cash or materials goods;
- MSP with whom they drank alcohol before last sex,
- and agreed they felt confident discussing condoms and could avoid sex if the partner refused to use a condom.

CONCLUSION

- Sexual behaviours with partners differ by how YWSS define the relationship
- YWSS remain less likely to use condoms with regular partners²
- Understanding these differences is important in reducing HIV risk among YWSS and their partners
- More needs to be done to support YWSS in negotiating condom use and HIV testing with regular partners
- A better understanding of knowledge of HIV status and condom use with partners of unknown HIV or ART status is needed to facilitate delivery of comprehensive HIV prevention programming.

ACKNOWLEDGEMENTS

The DREAMS impact evaluation is funded by the Bill and Melinda Gates Foundation (OPP1136774, <http://www.gatesfoundation.org>).

REFERENCES

1. Hensen B, Hargreaves JR, Chiyaka T, et al. Evaluating the impact of DREAMS on HIV incidence among young women who sell sex: protocol for a non-randomised study in Zimbabwe. *BMC Public Health*. 2018;
2. van Loggerenberg F, Dieter AA, Sobieszczky ME, Werner L, Grobler A, et al. (2012) HIV Prevention in High-Risk Women in South Africa: Condom Use and the Need for Change. *PLOS ONE* 7(2): e30669.