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What's in a name? A mixed method study on how young women who sell sex characterise male partners and their use of condoms

Running head: Male partners of young women who sell sex

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Abstract

Introduction Young women who sell sex (YWSS) are at disproportionate risk of HIV. Reducing YWSS' vulnerability requires engaging their male sexual partners. To achieve this, we need to understand the characteristics and dynamics of their sexual partnerships to inform effective interventions.

Methods We conducted a mixed methods study to compare YWSS' qualitative descriptions of male partners with categories reported in a behavioural survey. Data were drawn from enrolment into an evaluation of the DREAMS initiative in Zimbabwe in 2017. As part of a respondent-driven sampling survey, we recruited 40 seed participants from 2 intervention and 4 comparison sites. We conducted semi-structured interviews with 19 "seeds" followed by a behavioural survey with 2387 YWSS. We interpreted quantitative and qualitative data together to understand how YWSS perceived male sexual partners, assess how well survey variables related to narrative descriptions, and describe patterns of risk behaviour within partnerships.

Results Qualitative data suggest survey categories "husband" and "client" reflect YWSS' perceptions but "regular partner/boyfriend" and "casual partner" do not. In interviews, use of the term "boyfriend" was common, describing diverse relationships with mixed emotional and financial benefits. Over 85% of male partners provided money to YWSS, but women were less likely to report condom-less sex with clients than regular partners (11% vs 37%) and more likely to report condom-less sex with partners who ever forced them to have sex (37% vs 21%).

Conclusions Reducing HIV risk among YWSS requires prevention messages and tools that recognise diverse and changing vulnerability within and between sexual relationships with different male partners.

Key Words: young women; male partners; mixed methods; condoms; Zimbabwe

Introduction

HIV incidence in Southern Africa remains concentrated among adolescent girls and young women aged 15-24 (1). Young women who sell sex (YWSS) have particularly high risk of acquiring HIV (2, 3) due to high number of partners, difficulties negotiating condom use, poor access to services (4-7) and power imbalances within relationships (8-10). Exposure to sexual and physical violence is a further driver of HIV among this group (11).

Increasingly, HIV prevention interventions for YWSS target "upstream" determinants of vulnerability, offering education subsidies or cash transfers designed to lessen dependence on sexual relationships (12, 13). The DREAMS (Determined, Resilient, Empowered, AIDS-free, Mentored and Safe) Partnership provided a combined package of skills-building and entrepreneurial opportunities, social protection and sexual and reproductive health services in 10 sub-Saharan African countries (14-16). DREAMS also acknowledged that reducing HIV risk among YWSS requires engaging their male sexual partners, and thus collected data on male sexual partners of high-risk adolescent girls and young women to better target them with HIV services.

Existing research on the male partners of adolescent girls and women focuses on their age, educational attainment, number of partners and partner concurrency (17). Evidence on HIV risk for women in age-disparate relationships is mixed (18), but power differentials common to sexual partnerships with male partners 10-15 years older can exacerbate girls' and young

women's susceptibility to HIV (19, 20). Qualitative studies exploring transactional sex find that young women identify multiple and distinct partner categories, from which they receive a range of economic, material, social and emotional support (5, 21-23). Understanding how YWSS, including those self-identifying as sex workers, perceive and experience relationships with men has been less closely examined or used to inform programming.

We used mixed methods to characterise the male sexual partners of YWSS recruited to an evaluation of DREAMS in Zimbabwe (24). Drawing on qualitative data, we examined how YWSS describe, understand and navigate different kinds of sexual relationships. We used these qualitative insights to interpret quantitative data across pre-defined partner typologies, exploring associations between how YWSS characterise their partners, their behaviours with these partners and likelihood of engaging in condom-less sex. The aim of this analysis was to better understand YWSS' sexual relationship dynamics vis-à-vis risk to help inform targeted HIV prevention interventions.

Study Methods

Study location and population

In Zimbabwe, DREAMS worked in partnership with the Centre for Sexual Health and HIV/AIDS Research (CeSHHAR) to reach YWSS within the national *Sisters with a Voice* programme for female sex workers. YWSS were offered tailored HIV prevention and treatment services and referred into the DREAMS network of organisations providing the DREAMS 'core package' of social, educational and economic interventions (24).

Data were collected between April and July 2017 in six sites across Zimbabwe, two large cities where DREAMS was being implemented (anonymised as sites A & B), and four smaller towns without planned DREAMS activities (sites C, D, E & F) (24). As described elsewhere, socio-geographical mapping was conducted to identify where and how young

women sell sex and to recruit 44 “seeds”, representative of the typology of YWSS, to initiate Respondent Driven Sampling (25). Mapping identified different typologies of YWSS, including street-based YWSS, university students who transect sex during school terms, and rural migrants who sell sex to men with disposable income (25).

The 44 seed participants were given two coupons each to recruit women aged 18 to 24 whom they knew, and who sold sex to men, defined as “sex in exchange for money and/or material goods and, in the absence of the exchange, the sex would not happen.” Each new recruit was assessed for eligibility and, after completion of survey procedures, given two coupons to recruit a further two YWSS. This process continued over six waves, with wave 1 women recruiting the second wave of women, who in turn recruited a third wave, until the target sample size of 2400 YWSS was reached by the sixth wave (24).

Qualitative Interviews

Qualitative data were collected from 19 seed participants. We intended to interview 20 women: 6 in each of the two DREAMS intervention cities (A & B) and 4 in two smaller comparison towns (C & F), selected for diversity in type and location of sexual exchange identified during mapping (25). We completed all planned interviews except 1 in intervention site A. Semi-structured interviews explored experiences of initiating selling sex, current involvement in sexual exchange, relationships with different male sexual partners, health-related risk perceptions, and engagement with services. The topic guides were developed for the initial mapping exercise to identify different YWSS typologies and guide recruitment into the RDS survey and subsequent cohort, and thus specifically examined YWSS’ perceptions of their sexual relationships, focusing on those for financial or material gain. A female researcher conducted interviews in a local language (Shona or Ndebele), which lasted

roughly 45-60 minutes and were transcribed and translated into English by research assistants for entry into NVIVO software.

Thematic content analysis was conducted using a two-stage process: first, each transcript was read and "case notes" written to summarise the respondent's relationship history and number/description of all current sexual partners. Based on frequency of terms used to describe partners, we created three primary relationship nodes: "husband/permanent partner" "boyfriend" and "client" which we used to conduct "broad brush" coding of all interviews. Given considerable overlap between these categories, particularly as women referred to the same individual using different terms, we next examined each of these three original nodes in detail, in order to identify patterns in characteristics, relationship dynamics, and behaviours for each partner type.

Behavioural Survey

Women enrolled into the DREAMS evaluation completed a questionnaire covering demographics, HIV service use, sexual behaviours and history of selling sex, and whether they self-identified as a sex worker. YWSS were asked about their three most recent sexual partners, as follows, "How would you describe your relationship with [INITIALS] the last time you had sex?" Women could select: "husband", "regular/steady partner/boyfriend", "casual partner known to you before having sex", "one-off partner not known to you before having sex", "sex work client", or could specify their own description. If women reported that last sex with the partner involved an exchange, they were asked whether they received money, school supplies, support with bills, groceries, or other items.

Using data on three most recent partners, we described total numbers, characteristics and behaviours by three partner types: husband/regular partner, casual/one-off partner or sex work client, as well as number and percentage of partners with whom women reported any

episode of condom-less sex in the previous month. In regression analyses, the outcome of interest was condom-less sex in the past month with a partner, and the unit of analysis was the partnership. Factors explored for their association with condom-less sex were based on findings emerging from the qualitative analyses. As condom-less sex in the previous month was ~10-40% across partner types in descriptive analyses, the log(probability of reporting condom-less sex) was the outcome variable in our regression analysis; unadjusted and adjusted risk ratios were estimated using a generalized linear regression model, assuming that the outcome followed a normal distribution, with robust standard errors to allow for departures from this assumption (26) . Analyses were adjusted for women's age, level of education, marital status, self-identification as FSW and site of recruitment. Data were weighted using the RDS-II estimator (27), namely by the inverse degree of number of YWSS each woman reported knowing and normalised these by site. All seeds were excluded from analysis. Analysis was conducted using Stata 14.0. RDS diagnostics, described elsewhere, suggested our sites were broadly representative of age, HIV prevalence and identification as FSW in five sites. (28)

Findings from quantitative and qualitative data analysis were interpreted together to understand how YWSS perceived and categorised male sexual partners, identify whether and how well our prespecified measures related to narrative descriptions, and describe patterns of vulnerability and risk behaviour within each type of partnership.

Ethics

Ethics approval was obtained from the Medical Research Council of Zimbabwe (Ref MRCZ/A/2085) and the London School of Hygiene & Tropical Medicine (Ref 11835). Written informed consent from participants were obtained before enrolment.

Results

Partner Typology

During qualitative interviews, women referred to three partner categories, of which two corresponded to pre-defined variables used in our survey. Approximately half the interview respondents (9/19) referred to having a spouse or "permanent" partner at some time, defined by a history of setting up a shared home, having a child/ children together, and/or traditional or legal marriage. At the other end of the spectrum, "clients" paid cash in direct exchange for sex, at the time of sex, and the relationship did not involve personal attachment.

The largest category, however, was "boyfriend", covering numerous, diverse relationships that did not match the survey's use of "regular" or "casual" partner. For some YWSS, "boyfriend" implied emotional attachment and/or hopes for marriage. Others described how clients could become "boyfriends" through increasing frequency or amount of financial contributions. YWSS who did not self-identify as sex workers referred to clients as "boyfriends," perhaps reluctant to adopt the language of sex work. Having 2-5 "boyfriends" was a common means of maximising financial security. Often one boyfriend was considered the most important emotionally, and might provide regular support such as food and rent, instead of cash. YWSS were more likely to establish informal arrangements with boyfriends, who were expected to pay regular household expenses instead of paying money at the time of sex.

A further distinction was based on time, i.e. husbands were referred to solely in the past, with initiation of selling sex following the end of the marital relationship. In the present, YWSS called partners "boyfriends". "Permanent partner" referred to previous spouses or current relationships that they defined as "serious." Age differences did not feature prominently in interviews.

Table 1 provides illustrative excerpts from interviews for the three partner categories.

Exposure to Violence

YWSS experienced sexual and physical violence across relationships, feeling most vulnerable when it occurred within a romantic relationship by a husband/permanent partner or "boyfriend" for whom they felt personal attachment. Three young women described how their spousal relationships started with sexual assault or rape.

A particularly violent case was a YWSS who was just 12 or 13 at the time of the rape. After the episode below, she stayed with her assailant until her second pregnancy with him at age 15. He then abandoned her, leading her to sell sex to support herself and her baby:

> *He started by touching me and I refused and kept refusing. And then he removed my underwear and continued touching me. The day he touched me I cried, he took my virginity. … He raped me because I never consented to it. ...I stayed and he was bringing food and we were acting like husband and wife … I was not [having] my periods, I then got pregnant but I had a miscarriage. I had a miscarriage because he had hit me (Age 23, left school grade 5, 1 child, DREAMS Site B)*

Another respondent described how her husband's increasing violence caused her to leave the relationship, after which she started selling sex.

> *He [husband] would do strange things and beat me up for no reason. ... He would even injure me. … He would return from the bar and start beating me…. He would beat me up sober or drunk. … He would beat me up thoroughly. That's when I left him. (Age 24, left school grade 3, 2 children, non-DREAMS site C)*

While some YWSS started selling sex after leaving a violent relationship, others experienced violence as a consequence of selling sex when a boyfriend learned about other partners. Some YWSS hid the existence of competing boyfriends from each other to maintain secrecy.

> *This one is my boyfriend so l wouldn't want him to know what I do. (Age 24, completed school, no children, DREAMS site A)*

> *When a client texts me a message and I forget to delete the message. Obviously, the message will be talking about sex. ... When he checks [my phone] and sees a message he always shouts … He says I will be sleeping with other guys when he is not here. I just lie and say it's my friend or something, just tell a small lie (Age 22, completed 'O' level, 1 child, DREAMS site A)*

Others did not hide their involvement in sex work from boyfriends, but tried to avoid confronting them directly with its reality to avoid violence.

> *He might get jealous of my clients in the bar and then beat me. … Only when I have disrespected him, by talking to my clients and hooking up with them in his face in the bar. He doesn't like that. I will have to arrange with my client to wait for me outside the bar in his absence and then we go. He told me he doesn't like it and I don't do it in his face.* (Age 19, left school grade 7, no children, non-DREAMS site C)

Violence from clients, on the other hand, was portrayed as an expected part of selling sex. Conflicts with clients occurred over cost of sex, condom use, or were seen to reflect a client's violent personality.

> *Violence [comes] from clients who demand their money after [receiving the sexual] service. To avoid noise [hassle] at times I give back the money and continue with my job. (Age 21, left school grade 7, 1 child, non-DREAMS site F)*

They may even beat you up for no reason. Some clients are just like that by nature. … Like I said before in the bar if you bring a client home you might have misunderstandings and be beaten up. This is what usually happens. (Age 24, left school grade 3, 2 children, non-DREAMS site C)

Condomless Sex

YWSS reported that negotiating condoms with clients was possible, but depended on immediate economic needs.

But was there a time when you had to sleep with a client when they refused to use condoms?

Yahhh. … It wasn't often. It was when I saw that I was desperate and needed money I had to go to school. So if that client had money and didn't want to use condoms, I had to risk because l knew l had to go to school. (Age 24, completed school, no children, DREAMS site A)

A few YWSS reported that they themselves disliked condoms. One described preferring the female condom, and another explained low condom use as her preference for condom-less sex.

I don't like condoms

You don't like condoms, so you are not scared to get pregnant?

No, he withdraws before the sperms comes out

Oh he withdraws, what about sexual related diseases?

Ummm they are there (laughs), I'm scared but I don't like condoms. …with my boyfriend I just tell him that I do not want condoms and we do not wear [them], I don't know

why…. I think it's because I trust my boyfriend a lot (Age 19, completed 'O' level, no children, DREAMS site B)

Although women reported unplanned pregnancies and STIs, usually within established relationships, these were not considered as serious as HIV. As illustrated in the quote above, there was little motivation to avoid these outcomes through condom-use with partners described as "boyfriends".

Analyses of the behavioural survey

Through recruitment chains, 2387 women were recruited to the study; 20.9% (n=448) were aged 18, 44.4% (n=1060) had completed some secondary education and 67.3% (n=1637) self-identified as FSW. The majority of women were confident in discussing HIV testing and condom use with regular and/or new sexual partners (Table 2).

Most women (91.4%) reported on three recent partners, and 6929 partners were included in this analysis. Only 0.4% (n=26) provided an alternative "other" partner label, namely "friend", "friend with benefit" and "ex-boyfriend/husband". Overall, half of partners (47.9%, n=3143) were defined as regular (including few reports of "husband"; 0.8%, n=49), 26.1% (n=1693) as casual, and 26.0% (n=2093) as clients (Table 3). Among women who self-identified as FSW, a higher percentage of partners were defined as clients (31.8%; n=1707/4839) compared to women not-identifying as FSW (13.4%; 369/2030).

Regular partners were more likely to be ≤5-years older than women (39.7%, n=1235) compared to casual partners (29.3%, n=471) and clients (29.4%, n=622; Table 3), and less likely to be new sex partners in the past month (regular: 18.8%, n=542; casual: 57.8%, n=1026; client: 41.4% n=840). At last sex with 80.0% (n=2543) of regular partners, women reported an exchange, compared with 93.7% (n=1582) of casual partners and 97.1%

(n=2032) of clients. Money was most commonly received from all partners, followed by groceries/food. Women were less likely to agree/strongly agree that they could negotiate condom use with regular partners (81.2%, n=2578) relative to casual partners (93.8%, n=1581) and clients (93.7%, n=1961). Regular partners more likely to have ever forced women to have sex (11.0%; n=330) than casual partners (6.2%, n=109) and clients (6.3%, n=131).

Women reported at least one occurrence of condom-less sex in the past month with 22.8% (n=1345) of partners. The most commonly cited reason was that the partner didn't want to use condoms (regular: 29.8%, n=278; casual: 44.0%, n=53; client: 47.7%, n=88). With regular partners, the second most common reason was that women didn't want to use a condom/that it was more enjoyable without (19.1% n=169; casual: 11.7%, n= 18; client: 11.8%, n=24). Other reasons included: not having access to condoms (10.2% n=89; casual: 26.2%, n=34; client: 19.2%, n=32), low perceived HIV risk (11.7% n=124; casual: 3.0%, n=2; client: 3.6%, n=8), either/both being drunk (2.7%, n=35, casual: 6.4%, n=11, client: 4.3%, n=11) and "other" (14.0%, n=165), including "trust" and "mutual agreement".

In regression analyses, women were less likely to report condom-less sex with clients than regular partners (11.1% vs 37.4%, adjRR =0.28 95%CI 0.24, 0.34; Table 4), with partners with whom last sex involved an exchange (20.0% vs 47.5%, adjRR =0.61 95%CI 0.55, 0.69), and with partners they strongly disagreed they could negotiate condom use with (86.4% vs strongly agreed 11.6%; adjRR =4.56 95%CI 3.67, 5.68). Women were more likely to report condom-less sex with partners who ever forced them to have sex (37.5% vs 21.5% adjRR=1.34 95%CI 1.14, 1.57).

Discussion

In this mixed-methods analysis, we found consistencies and divergence in how YWSS characterised male partners in semi-structured interviews and a behavioural survey. Our qualitative data suggest that while survey categories of "husband" and "client" reflected YWSS' definitions fairly well, the pre-specified labels "regular partner/boyfriend" and "casual partner" did not. These categories appeared subsumed within wider use of the term "boyfriend," referring to relationships along a continuum rather than a specific "type." "Boyfriend" could signify close emotional attachment, a former client transitioning from direct exchange to longer term financial support, or a short-term client when used by YWSS who did not consider themselves sex workers. Survey respondents might allocate "boyfriends" across categories in unpredictable ways, making understanding risk across relationships challenging to determine or usefully apply to intervention design.

Nonetheless, survey and interview findings reinforce that condom-less sex is more common with longer term, more "regular" partners, as found elsewhere (29-31). YWSS reported highest condom-less sex at last sex and in the past month with "regular" partners. "Regular" partners were younger than casual partners and clients, being more similar in age to the young women themselves. Almost all these relationships involved material exchange, including money and assistance with rent, groceries and other household expenses likely to be longer-term support. YWSS might value these contributions more highly than cash if they are more reliable or signify greater personal involvement in daily life, thus catalysing a partner's transition from "client" to "boyfriend." Increasing financial reliance on a boyfriend might be one reason YWSS report lowest perceived condom-negotiation confidence with "regular" partners. In South Africa, a nuanced account of men's HIV risk profiles revealed two groups of moderate to high risk younger men who engaged in transactional sex but had limited access to available HIV services (32). These male partners may be subsumed within

the “regular” partners described by the women in our study. Critical to the HIV response is developing strategies to reach these “regular” partners with HIV prevention and care services.

Women were more likely to report experiences of IPV for “regular” partners, which was nearly double that reported for “casual” or “client” partnerships. As highlighted in our qualitative data, selling sex could be a consequence and a determinant of IPV. Experience of violence led to some YWSS initiating sex work as an alternative to dependence on the violent partner, yet selling sex could also exacerbate violence due to partners’ jealousy or feeling disrespected. Exposure to IPV is known to be a risk factor for HIV, independently and due to its association with alcohol use (33-36), and DREAMS’ core package targeted IPV as a structural driver of HIV (16). To minimise risk of IPV among YWSS, prevention programmes need to understand the drivers of IPV, such as poverty and interpersonal communication, with a focus on partners classified by women as “regular”, in order to deliver effective intervention strategies.(37)

We found women’s own dislike of condoms negatively affected use with non-client partners, suggesting factors other than unequal power dynamics determine HIV-prevention practices. YWSS reported their own reluctance as the second most common reason for not using a condom in the past month with a “regular” partner, suggesting in interviews that they associated condoms and HIV risk with clients more than with boyfriends, reducing motivation to use condoms with the latter. This highlights the need for greater attention to YWSS’ risk of unwanted pregnancy and other STI, both of which were discussed in interviews but did not appear to motivate YWSS to use condoms. The sole focus on HIV and neglect of other sexual and reproductive health outcomes for female sex workers has attracted previous criticism (38, 39). It also suggests that PrEP could be better promoted as a means to increase pleasure in sex with regular partners in addition to offering protection where condoms are difficult to negotiate (40. 41).

Overall, this study suggests that the partner labels commonly used on behavioural surveys remain a useful indicator of partnerships that likely place women at higher HIV risk, but remain blunt tools. While YWSS had mostly clear delineations for "husband/spouse" and "client" on either side of the emotional continuum, they applied the term "boyfriend" to a very diverse range of relationships that are unlikely to be captured through "regular" or "casual" categories. This suggests the need for extensive and in-depth qualitative inquiry to understand local perceptions and behaviours, and how these map on to risk of HIV and other outcomes prior to selection of targeted behavioural change messages.

Our analysis is subject to limitations. Our quantitative analysis excluded seed participants, yet our qualitative analysis focussed solely on seed participants. Seed participants were, however, represented the typology of YWSS in study sites so we thus consider our qualitative findings likely to reflect YWSS relationship dynamics in this context. Self-reported data on condom-less sex and violence are subject to bias and likely to be under-reported. Our finding that confidence in condom negotiation was associated with fewer occurrences of condom-less sex may be due to reverse causality. The women in our study reported a high number of partners in the past month, yet our quantitative analysis is limited to characteristics of and behaviours with their three most recent partners, making our findings potentially less generalisable to all partners.

Conclusion

Among adolescent girls and young women, YWSS are at disproportionately high risk of HIV. Our mixed methods analysis found that partners defined as "regular" are diverse but often characterised by stronger emotional ties and an increased risk of violence and condom-less sex than other partner types. For YWSS in Zimbabwe, the most salient category of male partner was "boyfriend", which subsumed a wide range of experiences, including sex work

clients for those YWSS who did not self-identify as FSW. This complexity adds to the challenges of appropriately targeting messaging and programmes to YWSS. To reduce HIV risk among YWSS, prevention programmes need to move beyond relying on the limitations of partner labels and focus on improving women's access to multiple HIV prevention options, including integrating IPV services within broader sexual and reproductive health services. Programmes need to recognise that young women's needs change over time, within relationships and between partners, and provide services that are flexible to these changing needs.

Author contributions

JB and BH jointly conceived and drafted the paper and led qualitative and quantitative data analysis, respectively. IB, JH, and SF led study design for the DREAMS evaluation. SF and SC contributed to quantitative data analysis and commented on previous drafts. TC and PM led qualitative data collection. FC was the PI for the DREAMS evaluation in Zimbabwe and helped revise the paper. All authors have read and approved the manuscript.

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Table 1: Characterisations of male sexual partners

Husband or Permanent Partner	I then got pregnant with this child. So …in living together… I noticed that, aah! my husband was cheating, you see. I was faithful to my husband. He was now cheating me and didn't buy food and I was pregnant. He only payed rentals and water bills and went away. He could take all the money he had given me and buy beer and come home empty handed. (age 23, completed 'O' level, 1 child, DREAMS site B) I was married when I was sixteen. … He was doing engineering course … He then finished the course and wanted to pay for lobola. I then said 'alright its fine'. … I then stayed with my mother in law. He could visit weekends. He skipped some of the weekends and never came. He never sent money at month-end. At times he would sent $400 and that will be great, he was payed $800. He then transferred and said he was now working in town… He would come home, park his car, and take his computer inside then go out. He would come back home the next morning morning around 4 or 5. I couldn't take it, so I came back home … to my father's place, and that led me to develop a habit of going to the club [to sell sex]. (age 20, left school grade 8, no children, DREAMS site B) My boyfriend is good because of the money he provides … even rent money. Almost every day he gives me money to buy food in the house such as bread and vegetables. Money to get my hair done and [buy] clothes. … I only have one permanent lover. (age 20, left school grade 10, 2 children, non-DREAMS site C)
Boyfriend	I met this guy during a basketball match ... He heard from other guys that I was selling sex ... He then asked me if this was true and I explained to him how my mother passed away and my brother leaving, which led to my situation. He said he could help me with money monthly if I could quit the trade. He even said he was willing to give me money to go back to school. He actually thinks I stopped [selling sex] and doesn't know that I haven't quit. … He treats me like a proper girlfriend. (age 18, left school grade 8, no children, non-DREAMS site C) I was just walking to the shops and I met him, and he said he liked me, then I went home. On the next day he called me and said that I should come to his house and I went. So I was at the house and we slept together and then I came back here. … I went home and he then called me again saying 'come and get this'. So I went to his house and he gave me ten dollars. (age 22, current university student, no children, non-DREAMS site F) The relationship with my boyfriend started off as short time. Those if he had money he would come for the night. Then he said may I provide you money for anything you need or money for rent or anything you are short of. … It's about making money. Right now there is no money, so if you base on one person that will not work. … have two boyfriends. (age 24, left school grade 10, 1 child, non-DREAMS site F)

	Yes he is sort of a client but also my boyfriend. ***How much does he pay you after sex?*** Maybe $10.00 at times $15.00 when he is happy. At times he can give you $5.00 and tell you that he does not have money. (age 20, completed 'O' level, no children, DREAMS site A) I had a boyfriend and I had other clients. Not just one boyfriend, I had two boyfriends. So it happened that the one who got me pregnant knew about the other boyfriend that I had, so it was difficult for me, and the guy denied the pregnancy. I had to continue with my sex work in order to buy [supplies] for my daughter and raise money to take care of myself and help my mother out. (age 24, completed school, no children, DREAMS site A)
Client	I already have a lot of my clients who are here. So most of them will call me then I will be gone for two minutes and we do our deals and then I come back home. … I meet all types, I do not want to lie. I like to meet up with old men, those are the ones that I like the most to have sex with. I do not like little boys because they do not give you money. They give you money that does not buy anything. But a grown man who has his wife will treat you well. He will give you your money when you are done having sex. (age 22, completed 'O' level, no children, DREAMS site B) We would just go in the streets to look for clients. We would go on the streets and look for clients and they would "catch" us. After that they would give us money. … $2.00 or $5.00 it depends on the day but you would see that at the end of the day in the morning you would have $10 or $20 depending. **How many clients were you getting per night?** 3 or more (age 24, completed school, no children, DREAMS site A) We just meet and deal and he goes away. **How many people do you sleep with per day?** Sometimes 6 or 7. Sometimes you meet people saying short time $2 and you can't go for $2. … I charge $4 or $5. They give me my money first. … I don't do nights. Since I started sex work I have never liked to go and sleep with people. When I want to sleep I do not want anyone turning me. You cannot sleep, some people will really make you work for your money. (age not known, left school grade 10, 1 child, non-DREAMS site F)

Table 2: Characteristics and behaviours of women recruited to the study (N=2387)		
	Number (column %)	**RDS-Weighted %**
Age at enrolment		
18yrs	448 (18.8)	20.9
19yrs	371 (15.5)	15.8
20yrs	267 (11.2)	10.7
21yrs	291 (12.2)	11.3
22yrs	374 (15.7)	15.2
23yrs	471 (19.7)	19.6
24yrs	165 (6.9)	6.5
Marital status		
Single/never married	1397 (58.5)	57.5
Married/cohabiting	49 (2.0)	2.3
Divorced	918 (38.5)	39.3
Widowed	23 (0.9)	0.9
Highest level of education attained		
No education/incomplete primary	171 (7.2)	8.7
Complete primary education	220 (9.2)	10.0
Form 1-3 (Secondary education)	1060 (44.4)	44.9
Form 4-6 (Secondary education)	923 (38.7)	36.0
College, cert, degree	13 (0.5)	0.4

Self-identifies as FSW		
No	730 (30.8)	32.7
Yes	1637 (69.2)	67.3
Age started selling sex		
10-14	94 (3.9)	4.0
15-17	972 (40.8)	40.5
18-19	721 (30.2)	29.9
20-24	597 (25.0)	25.6
Number of years of selling sex		
<2	724 (30.4)	32.9
2-3	967 (40.6)	39.8
4-5	420 (17.6)	17.7
6+	273 (11.5)	9.7
Number partners sold sex to past mth		
1-3	965 (40.7)	44.2
4-9	662 (27.9)	26.2
10+	745 (31.4)	29.6
I am confident in my ability to discuss HIV testing with any sexual partner*		
Strongly agree	633 (26.5)	23.9
Agree	1240 (52.0)	54.6
Disagree	365 (15.3)	15.6
Strongly disagree	148 (6.2)	6.0

I am confident I could ask a regular sexual partner to go for HIV testing**		
Strongly agree	654 (27.5)	24.6
Agree	1366 (57.4)	59.9
Disagree	287 (12.1)	12.9
Strongly disagree	72 (3.0)	2.6
I am confident I could ask a new partner their HIV status before sex+		
Strongly agree	493 (20.7)	18.2
Agree	1122 (47.1)	49.2
Disagree	499 (20.9)	21.7
Strongly disagree	270 (11.3)	10.8
I am confident in my ability to ask a new sexual partner to use a condom+		
Strongly agree	695 (29.2)	26.2
Agree	1518 (63.7)	66.1
Disagree	132 (5.5)	6.0
Strongly disagree	38 (1.6)	1.7
Key: * 1 woman missing data; ** 8 women missing data; + 3 women missing data		

Table 3: Characteristics of and behaviours with male sexual partners by type of partner (N=6929)						
Characteristics and behaviours by type of relationship	**Regular (N=3143)**		**Casual (N=1693)**		**Sex work client (N=2093)**	
	Number (column %)	**RDS-weighted %**	**Number (column %)**	**RDS-weighted %**	**Number (column %)**	**RDS-weighted %**
Partner's age (years)						
Younger/same age	691 (22.0)	25.0	352 (20.8)	21.7	281 (13.4)	14.4
Up to 5yrs older	1235 (39.3)	39.7	471 (27.8)	29.3	622 (29.7)	29.4
5-10yrs older	883 (28.1)	24.6	480 (28.4)	27.7	717 (34.3)	32.6
>10yrs older	271 (8.6)	8.3	235 (13.9)	13.2	311 (14.9)	16.5
UNK/refuse answer	63 (2.0)	2.3	155 (9.2)	8.1	162 (7.7)	7.1
Where she first met male sexual partner						
Bars/nightclub/entertainment venue	648 (20.6)	19.4	773 (45.8)	45.3	1089 (52.1)	51.8
In the market place/street/shops	1452 (46.2)	45.8	596 (35.3)	36.5	709 (33.9)	34.7

In a lodge/hotel/restaurant	69 (2.2)	2.1	35 (2.1)	1.9	63 (3.0)	2.8
At school/college or church	363 (11.6)	12.5	64 (3.8)	3.6	40 (1.9)	2.3
Friends/relatives house, or her own/partners workplace	386 (12.3)	13.2	128 (7.6)	8.1	117 (5.6)	5.1
Other - including social media, taxi, in neighbourhood	223 (7.1)	7.1	93 (5.5)	4.6	71 (3.4)	3.4
Whether first had sex in the past year (N=6883)						
No	575 (18.5)	18.1	86 (5.1)	5.3	154 (7.4)	6.8
Yes	2540 (81.5)	81.9	1601 (94.9)	94.7	1927 (92.6)	93.2
Whether first had sex in the past month (N=6883)						
No	2573 (82.6)	81.2	661 (39.2)	42.2	1241 (59.6)	58.6
Yes	542 (17.4)	18.8	1026 (60.8)	57.8	840 (40.4)	41.4
Whether last sex involved an exchange (N=6916)						
No	590 (18.8)	20.0	108 (6.4)	6.3	61 (2.9)	2.9
Yes	2543 (81.2)	80.0	1582	93.7	2032 (97.1)	97.1

			(93.6)			
Money (N=6157)						
No	396 (15.6)	14.9	111 (7.0)	7.5	147 (7.2)	7.3
Yes	2147 (84.4)	85.1	1471 (93.0)	92.5	1885 (92.8)	92.7
Support with rent/bills/school-related expenses (N=6157)						
No	2405 (94.6)	94.5	1561 (98.7)	98.5	1999 (98.4)	98.3
Yes	138 (5.4)	5.5	21 (1.3)	1.5	33 (1.6)	1.7
Phone/airtime (N=6157)						
No	2405 (94.6)	94.9	1541 (97.4)	97.2	1972 (97.1)	96.9
Yes	138 (5.4)	5.1	41 (2.6)	2.8	60 (2.9)	3.1
Clothes/shoes/accessories/cosmetics (N=6157)						
No	2196 (86.4)	86.9	1483	93.5	1931 (95.0)	95.6

			(93.7)			
Yes	347 (13.6)	13.1	99 (6.3)	6.5	101 (5.0)	4.4
Groceries/food (N=6157)						
No	2100 (82.6)	82.7	1443 (91.2)	90.5	1816 (89.4)	89.2
Yes	443 (17.4)	17.3	139 (8.8)	9.5	216 (10.6)	10.8
Other items (including alcohol, drugs, supplies for children; N=6157)						
No	2464 (96.8)	96.8	1548 (97.8)	98.2	2000 (98.4)	98.8
Yes	81 (3.2)	3.3	35 (2.2)	1.8	32 (1.6)	1.2
Used a condom at last sex (N=6193)						
No	805 (25.7)	26.5	116 (6.9)	7.4	127 (6.1)	6.4
Yes	2328 (74.3)	73.5	1574 (93.1)	92.6	1963 (93.9)	93.6
Who brought condom if condom was used at last sex (N=5861; 4						

missing data)						
Me	1011 (43.5)	42.3	1028 (65.4)	66.6	1233 (62.8)	64.9
Partner	1247 (53.6)	55.3	504 (32.0)	31.0	653 (33.3)	31.1
We both brought a condom	68 (2.9)	2.3	41 (2.6)	2.4	76 (3.9)	4.0
Any condom-less sex with partner in previous month (restricted to partners with whom she reports sex with in last month; N=6206)						
No	1712 (63.5)	62.6	1397 (90.3)	89.9	1752 (89.3)	88.9
Yes	984 (36.5)	37.4	151 (9.7)	10.1	210 (10.7)	11.1
Confident in negotiating condom use with partner (N=6917)						
Strongly agree	812 (25.9)	22.7	711 (42.1)	36.2	730 (34.9)	31.7
Agree	1766 (56.3)	58.5	870 (51.5)	57.6	1231 (58.8)	62.0
Disagree	408 (13.0)	14.5	81 (4.8)	5.0	111 (5.3)	5.4

Strongly disagree	149 (4.8)	4.3	27 (1.6)	1.2	21 (1.0)	1.0
Can avoid sex with partner if refuses condom use (N=6911)						
Strongly agree	672 (21.5)	19.9	681 (40.3)	34.6	667 (31.9)	29.0
Agree	1639 (52.3)	54.0	838 (49.6)	55.6	1209 (57.9)	60.9
Disagree	560 (17.9)	19.3	120 (7.1)	7.5	153 (7.3)	7.7
Strongly disagree	261 (8.3)	6.8	50 (3.0)	2.3	61 (2.9)	2.4
Drank alcohol before last sex (N=6917)						
No	2664 (85.0)	86.3	1337 (79.1)	80.5	1533 (73.2)	76.8
Yes	470 (15.0)	13.7	353 (20.9)	19.5	560 (26.8)	23.2
Whether MSP ever forced her to have sex (N=6922)						
No	2808 (89.5)	89.0	1582 (93.6)	93.8	1962 (93.7)	93.7
Yes	330 (10.5)	11.0	109 (6.4)	6.2	131 (6.3)	6.3

Knows partner's HIV status (N=6922)						
No	1904 (60.7)	63.1	1519 (89.8)	90.3	1797 (85.9)	87.2
Yes	1234 (39.3)	36.7	172 (10.2)	9.7	296 (14.1)	12.8
Partner's status known as HIV positive	89 (7.2)	7.1	18 (10.4)	14.5	31 (10.4)	13.4

Table 4: Levels of and factors associated with condomless sex in the past month with at least one recent partner (N=6206)							
	Number (%)	**RDS-adjusted %**	**# reporting condomless sex with any partner**	**RDS-adjusted %**	**Age of woman and site adjusted risk ratio (RR)**	**Adjusted RR^**	**p-value**
Overall	6206	-	1345	22.8	-	-	
Partner's age (years)							
Younger/same age	1159 (18.7)	20.9	279 (24.1)	27.3	1.0	1.0	
Up to 5yrs older	2045 (33.0)	33.5	479 (23.4)	23.8	0.87 (0.74, 1.01)	0.84 (0.72, 0.98)	<0.001
5-10yrs older	1913 (30.8)	28.4	408 (21.3)	21.6	0.81 (0.69, 0.96)	0.79 (0.67, 0.93)	
>10yrs older	750 (12.1)	12.1	156 (20.8)	21.1	0.77 (0.62, 0.96)	0.78 (0.63, 0.97)	
UNK/refuse answer	339 (5.5)	5.1	23 (6.8)	8.0	0.37 (0.22,	0.35 (0.21,	

					0.62)	0.61)	
Type of relationship							
Husband/regular partner	2696 (43.4)	45.5	984 (36.5)	37.4	1.0	1.0	<0.001
Casual partner	1548 (24.9)	26.8	151 (9.8)	10.1	0.28 (0.23, 0.34)	0.26 (0.21, 0.33)	
Client	1962 (31.6)	27.8	210 (10.7)	11.1	0.30 (0.25, 0.35)	0.28 (0.24, 0.34)	
Whether MSP ever forced her to have sex (N=6205)^^							<0.001
No	5711 (92.0)	91.9	1167 (20.4)	21.5	1.0	1.0	
Yes	494 (8.0)	8.1	178 (36.0)	37.5	1.61 (1.35, 1.90)	1.34 (1.14, 1.57)	
Whether last sex involved an exchange (N=6203)+							
No	591 (9.5)	10.2	262 (44.3)	47.5	1.0	1.0	<0.001

Yes	5612 (90.5)	89.8	1082 (19.3)	20.0	0.45 (0.40, 0.52)	0.61 (0.55, 0.69)	
Whether money was exchanged at last sex that involved an exchange (N=5612)+							
No	560 (10.0)	10.0	148 (26.4)	26.3	1.0	1.0	0.58
Yes	5052 (90.0)	90.0	934 (18.5)	19.3	0.77 (0.64, 0.93)	0.94 (0.77, 1.16)	
Confident in negotiating condom use with partner (N=6199)++							
Strongly agree	2093 (33.8)	30.1	213 (10.2)	11.6	1.0	1.0	<0.001
Agree	3411 (55.0)	58.1	569 (16.7)	16.1	1.39 (1.15, 1.68)	1.19 (0.98, 1.45)	
Disagree	509 (8.2)	9.0	403 (79.2)	82.8	6.92 (5.82, 8.23)	4.47 (3.59, 5.57)	
Strongly disagree	186 (3.0)	2.8	155 (83.3)	86.4	7.30 (6.14, 8.69)	4.56 (3.67, 5.68)	

^ N=6150 as 20 women missing data on whether they self-identified as FSW; all variables adjusted for partner's age, woman's age, marital status, educational attainment and whether she identified as FSW
^^ Additionally adjusted for type; + additionally adjusted for partner type and forced sex; ++ Additionally adjusted for partner type, forced sex and whether last sex involved an exchange.