Factors Associated with HIV Risk Sexual Behavior among Female Domestic Workers in Nairobi, Kenya

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SUMMARY

Background: Female Domestic Workers (FDW) engage in HIV risky sexual behavior. This study sought to determine factors associated with high risk sexual behaviours among FDW in Nairobi.

Method: A cross section of FDW in Nairobi city were sampled and stratified along low, middle and upper social classes of the employer households. The 187 FDW who participated were selected through snowballing and convenience sampling.

Results: Majority (51%) of FDW interviewed were from the low social class households; 68.5% were aged between 18 to 30 years; 49.4% had primary school education and 47.8% were separated from their spouses. Most (96.3%) had heard of HIV and AIDs; and 51.9% were able to correctly dispel myths on HIV and identify methods of prevention. 16.9% of the FDWs scored more than half on an 0-18 point maximum score range of risk perception. There was a weak association of risk perception score and duration the respondent had worked (P=0.07). Two thirds of the respondents engaged in high risk sexual behaviour. High risk sexual behavior was associated with risk perception (β = 0.119), socio-economic class of employer and having a regular sex partner.

Conclusion: FDW in Nairobi engage in high risk sexual behaviour; HIV interventions for this population should seek to raise awareness dangers of high risk sexual behaviour in relation to STI infections and target as a priority, those who work in low income area and have steady sex partners.

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Introduction

Researchers and human rights watch groups have reported incidences of high risk sexual behaviours among Female Domestic Workers (FDW) across the world (1, 2). This includes unprotected sex, multiple-sex partners, forced or coerced sex with male members of employer households (3, 4, 5). Knowledge of HIV, risk perception and socio-

demographic characteristics have been demonstrated by other studies to be associated to high risk sexual behaviours that expose populations to HIV infection (6,7,8). Other individual characteristics associated with high risk sexual behaviour are age and level of education (9). Limited education has been cited in other studies as limiting options for alternative employment therefore may find it difficult to refuse a sexual advance from an employer due to fear of losing their job (10); increases HIV prevalence (11); lowers VCT acceptance (12). Perception of cross-generational sexual relationship and migration also determine sexual behavior (13, 14). Generally, there are limited studies on sexual behavior of FDW despite documented exposure to HIV and other STIs, hence the need for more such studies.

This study was aimed at determining the extent to which FDW in Nairobi are engaged in HIV risky sexual behaviour and factors associated with the behaviour. Specifically, it sought to determine the proportion of FDW in Nairobi who engage high risk sexual behaviour among; assess the influence of socio-demographic characteristics, knowledge and risk perception of HIV and AIDS on sexual behaviour of FDW in Nairobi.

Materials and Methods

This was a cross sectional study design in which FDW working in the three pre-defined social classes were consented and enrolled for face to face structured interviews. The FDW were recruited from 19 different locations, ten more locations than were planned. This was necessitated by the difficulty in getting the sample size from the nine locations originally planned. The locations were grouped as low income social class (Mbotela and Kariobangi South), middle income social class (Garden Estate, Buruburu, Kilimani, Langata, Nairobi West, Parklands, South B and South C) and high income social class (Runda, Village Market, Lavington, Brookside, State House, Karen and Westlands) (15).

The sample size was determined from estimated one million domestic workers in Nairobi (17), with 90% of them being females (18). Using Fishers formula at 95% confidence level, the sample size was calculated at 384 female domestic workers. The data used in this study was however collected from 187 female domestic workers (FDW) in Nairobi Kenya, this was about half of the targeted number. This was due to difficulty in accessing the private households and the limited resources that did not allow for longer period of data collection.

Random sampling methods were used to select the respondents for the study. Upon arriving at a randomly pre-selected study site (residential area), the interviewer indiscriminately knocked at the door of the nearest household. The interviewer then proceeded to book a date for the interview, or where permission was granted and the interviewee met the inclusion criteria, he or she proceeded to conduct the interview. The respondents in the study were recruited if they satisfy the following criteria: female domestic workers; aged above 18 years; willing to participate and communicate freely; self-identifying as a domestic worker; and gave informed consent for participation in study. The next household was selected by skipping two houses from the one where last interview was conducted.

In the case of FDW identified through institutions, the domestic workers interviewed were those visiting these institutions from various households in the neighbourhood of the institution at scheduled dates and hours for training or to place a complaint against

abuse or exploitation. The interviewers explained to the group of domestic workers present purpose of the study, the benefits and possible risks of participating in the study. The FDW who consented were interviewed individually or were allowed to fill-in the questionnaire privately and return the form the waiting research assistant. In this case, because the FDW attending the sessions at the centres were from varying households that were unrelated, there were no skipping patterns applied in selecting the respondents.

The questionnaire was divided into five sections. Section I collected information on socio-demographic characteristics including age; highest level of education attained; marital status and sexual partners. Section II collected information on knowledge of HIV and AIDS, HIV prevention methods and beliefs about HIV transmission. Section III collected information on risk perception. The questions were modelled along constructs of risk perception as postulated in Protection Motivation Theory (PMT). The constructs determined individual FDW risk perception based on extrinsic rewards, intrinsic rewards, severity of infection, vulnerability, response efficacy, self efficacy, and response cost. Section IV collected information on sexual behaviour and condom use. Questions included sexual activity, frequency of sexual intercourse and number of sexual partners, protected sex, transactional sex, forced sex and condom use. Section V covered issues of HIV testing and health seeking behaviour.

The overall knowledge score for each respondent was computed by calculating the average of correct response from 10 questions on awareness, HIV prevention methods and myths on HIV and AIDS. The questions numbered 201 to 210 in the interview guide (annexed) had response options of yes, no and not sure/ no response; or true, false, and not sure/ no response. All the correct responses were computed and the median determined. The median was then used as the cut-off point; those below the cut off were considered as having poor knowledge of HIV and AIDS while those above the cut off were considered as having good knowledge on HIV and AIDS.

Overall risk perception score for each respondent was generated by calculating the averages of the 18 psychometric questions based on seven constructs of Protection Motivation Theory of extrinsic rewards, intrinsic rewards, response costs, severity, vulnerability, response efficacy and self-efficacy. The questions numbered 301 to 318 in the interview guide (annexed) had response options of agreed, disagree, and not sure/ no response; or true, false and not sure/ no response. Each response was given a value of '1' for those with implication of high risk perception or a value of '0' for responses considered as implying low risk perception. The score average for each element or construct of PMT was also calculated separately. A scale based on Rasch scale model (19) was constructed to rank the groups HIV risk perception from a range of lowest to highest score. Using the median as the cut-off point; those below the median mark were considered as having low perception of HIV and AIDS risk while those above the median were considered as having high HIV and AIDS risk perception.

In this study, only HIV infection via the heterosexual route was investigated. Sexual behaviour indicators used in Kenya Baseline Surveillance Survey Study which targeted high risk groups were adopted for this study. Extent of engagement in high risk sexual behaviour was determined using data obtained from responses to 12 questions numbers 401 to 414 in

the interview guide (annexed), excluding question number 402. The response options to the questions on engaging in specific sexual behaviours or events within the last 12 months prior to the study were given as yes, no and no response; or often, rarely, never and no response. Questions included whether respondent was sexually active, age of debut, multiple sex partners, involvement in sex for favour/ coerced sex, had forced sex, and had unprotected sex. Responses that indicate engaging in high risk behaviour were recorded as value '1' and low risk behaviour given a value of '0'. Using the median value as the mid-point, individuals scoring media value were considered as engaging low risk sexual behaviour and those above it were considered as engaging in high risk sexual behaviour.

Statistical analysis was done using SPSS version 20 (IBM Corporation 1989, 2011) at a significance level of $P \leq 0.05$. The distributions of the demographic characteristics were expressed using frequency distribution tables. Continuous variables were analyzed using means, standard deviations. Ninety five percent confidence intervals were constructed for both means and proportions.

In bivariate analysis, the chi-square test was used to investigate the association between categorical variables while analysis of variance (ANOVA) was used to determine the presence of association between continuous outcome variables and categorical predictors. In multivariable analysis, a linear regression model using the backward elimination method with F=0.05 to enter and F=0.1 to remove was constructed with risk behaviour score as outcome variable. The risk perception score, the knowledge score and the socio-demographic characteristics were entered as the predictor variables. Associations were considered statistically significant if p-value was less than 0.05.

Results

Socio-demographic characteristics

The mean age of the 187 FDWs in this study was 28.61 years (range 18 to 51 years; median 27; and SD 6.91 years). About 49.4% (95% CI 42.2 – 56.7) had completed primary level of education. Table 1 below summarizes the socio-demographic characteristics of the FDW interviewed.

Table 1: Socio-demographic characteristics of FDW interviewed

Variable	Total	Frequency	Percentage	95% CI
Social Class Grouping				
Low class	187	96	51	44.2 - 58.4
Middle Class	187	51	27	21.4 - 34.1
Upper Class	187	40	21	16.1 - 27.8
Age Group				
18 - 30	181	124	68.5	61.4 - 74.8
31 - 40	181	43	23.8	18.1 - 30.5
41 - 50	181	13	7.2	4.2 - 11.9

Variable	Total	Frequency	Percentage	95% CI
51 – 60	181	1	0.6	0.1 – 3.1
Attended School				
Primary	187	89	47.6	40.5 – 54.7
Secondary	187	75	40.1	33.3 – 47.3
College	187	16	8.5	5.3 – 13.4
Marital status				
Married	46	16	34.7	22.7 – 49.3
Widowed	46	5	10.9	4.8 – 23.1
Separated	46	22	47.8	34.1 – 61.9
Divorced	46	3	6.5	2.3 – 17.5
Duration as female domestic worker				
Less than 1 year	177	86	48.6	41.3 – 55.9
1 – 2 years	177	38	21.4	16.1 – 28.1
3 – 5 years	177	42	23.7	18.1 – 30.5
Above 5 years	177	11	6.2	3.5 – 10.8

CI – Confidence interval; % – Percentage

Knowledge of HIV and AIDS, HIV prevention methods and beliefs about HIV transmission

Of the 187 respondents, almost all (96.3%, 95% CI 92.4 – 98.1) of them had heard about HIV and AIDS. Three quarters, 75.1% (95% CI 68.4 – 80.8) of the respondents were aware of at least one person living or infected with HIV while 53.3% (95% CI 46.1 – 60.6) of the FDW had blood relative infected with HIV and AIDS. Concerning knowledge on methods of HIV and AIDS prevention; abstaining from having sex was reported by 43.1% (95% CI 35.8 – 50.7) of the respondents, followed by 29.9% (95% CI 23.5 – 37.2) stating condom use while 26.9% (95% CI 20.8 – 34.1) of them said being faithful to one partner who you know their HIV status .

Table 2: Proportion of FDWs correctly dispelling myths on HIV and AIDS

HIV Myths	Total (N)	Frequency	Percentage	95% CI
HIV can be transmitted by mosquito bite				
True	186	25	29.9	23.5 – 37.3
False	186	161	86.6	80.9 – 90.7
HIV can be transmitted by a healthy looking person				
True	186	20	10.8	7.1 – 16.1
False	186	166	89.2	83.9 – 92.9
HIV can be transmitted by sharing meal with an infected person				

HIV Myths	Total (N)	Frequency	Percentage	95% CI
True	186	138	74.2	67.4 – 79.9
False	186	48	25.8	20.1 – 32.6
HIV can be transmitted through taboo, curse or witchcraft				
True	185	15	8.1	4.9 – 12.9
False	185	170	91.9	87.1 – 95.1
Having sex with a virgin can cure HIV				
True	184	8	4.3	2.2 – 8.3
False	184	176	95.7	91.6 – 97.8
HIV can be transmitted by a woman to her child during breastfeeding				
True	187	166	88.8	83.4 – 92.5
False	187	21	11.2	7.5 – 16.6

HIV and AIDS knowledge scores ranged from three to nine out of a possible maximum of 9, with a mean of 6.5 (95% CI 6.3–6.7) and standard deviation 1.2. Over 90% of the respondents answered at least half of the knowledge questions posed correctly (see figure 1 below).

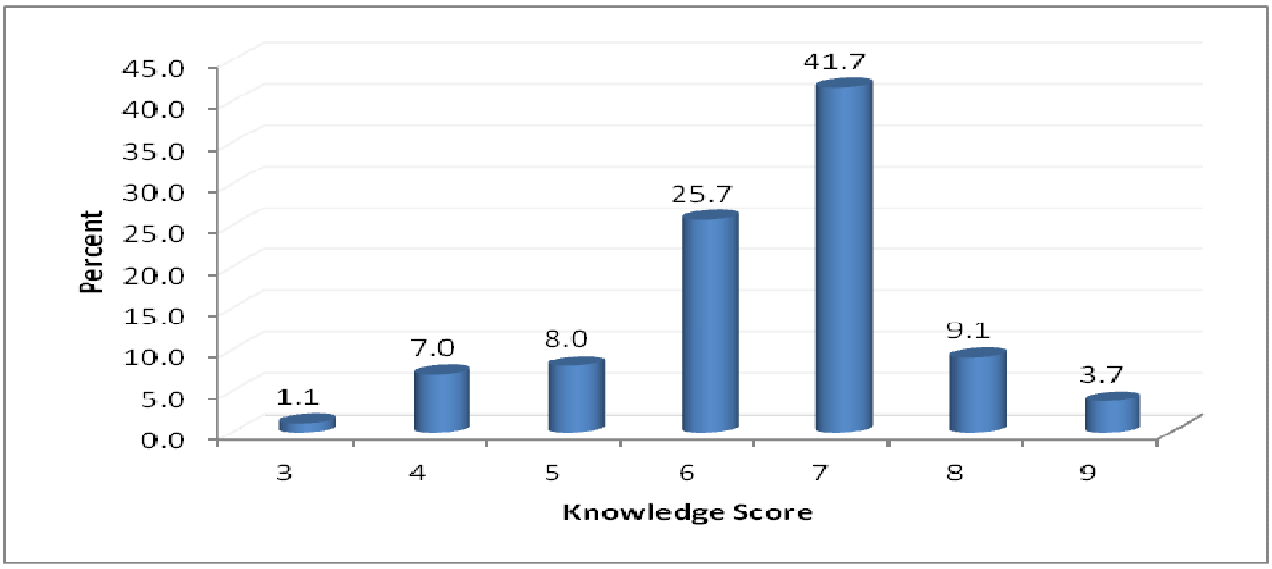


Figure 1: Distribution of HIV and AIDS knowledge scores

However, comprehensive knowledge of HIV and AIDS (as measured by UNAIDS for UNGASS reporting was extremely low especially for the younger FDWs. Only 4% of the FDWs aged 18–30 had comprehensive knowledge as compared to 14.0% of those aged over 30 years (exact p-value = 0.026).

The socio-economic classification of the area where the FDWs worked, age, duration worked as FDW and ever been married did were not associated with the knowledge score. However, the level of education and having a steady boyfriend had a statistically

significant association with knowledge of HIV and AIDS at P= .031 and P=.027 respectively.

Risk perception was determined using measures of perception based on Protection Motivation Theory (PMT). A set of questions were asked to the FDW, and an average score calculated for each of the measures.

Perception of risk of HIV and AIDS

Table 3: Proportion of FDW affirming to risk perception based on measures of PMT constructs

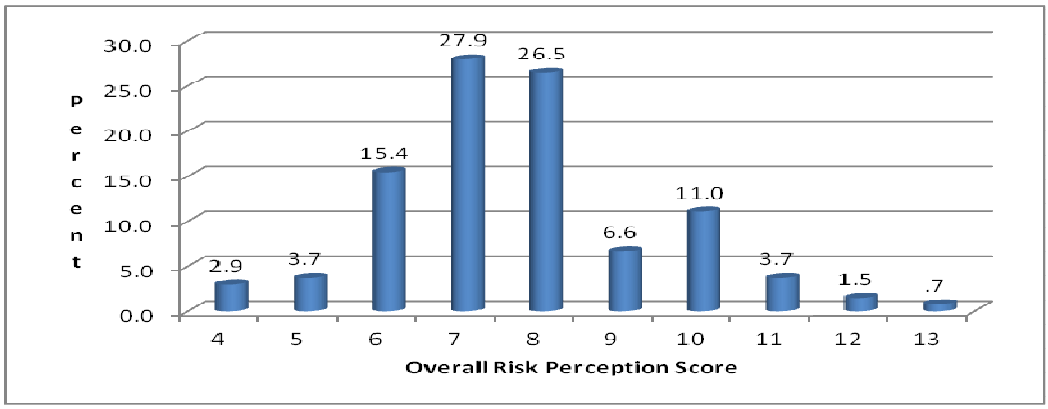
Variable	Total (N)	Frequency	Percentage	95% CI
Measures of Extrinsic Reward				
Question: Many FDWs have sex with more than one person				
Agree	185	96	51.9	44.7 – 58.9
Disagree	185	48	25.9	20.2 – 32.7
Not sure	185	41	22.2	16.8 – 28.7
Question: Many FDWs have had sex with their employers or members of the household				
Agree	184	137	74.5	67.7 – 80.2
Disagree	184	17	9.2	5.8 – 14.3
Not sure	184	30	16.3	11.7 – 22.3
Question: Many FDWs have (or had) a STD				
Agree	184	89	48.4	41.2 – 55.6
Disagree	184	46	25.0	19.3 – 31.7
Not sure	184	49	26.6	20.8 – 33.5
Measures of Intrinsic Reward				
Question: A FDWs with multiple sexual partners is smart/ cool/ shrewd				
Agree	184	60	32.6	26.3 – 39.7
Disagree	184	101	54.9	47.7 – 61.9
Not sure	184	23	12.5	8.5 – 18.1
Question: A FDWs having sex with the employer is desirable among peers				
Agree	182	47		
Disagree	182	123		
Not sure	182	12		
Question: FDWs have sex with employers because of loneliness and depression				
Agree	180	31	17.2	12.4 – 23.4
Disagree	180	129	71.7	64.7 – 77.8
Not sure	180	20	11.1	
Question: FDWs who have sex with employers just want to indulge themselves and seek pleasure				

Variable	Total (N)	Frequency	Percentage	95% CI
Agree	179	114	63.7	56.4 – 70.4
Disagree	179	46	25.7	19.9 – 32.6
Not sure	179	19	10.6	6.9 – 15.9
Measures of Severity of Infection				
Question: If a FDW is infected with HIV, her family members should keep away from her				
Agree	185	4	2.1	0.8 – 5.4
Disagree	185	180	97.3	93.8 – 98.8
Not sure	185	1	.5	0.1 – 3
Question: If a FDW is infected with HIV, she should be sacked				
Agree	183	40	21.8	16.5 – 28.4
Disagree	183	140	76.5	69.8 – 82.1
Not sure	183	3	1.6	0.5 – 4.7
Question: If a FDW is infected with HIV, she would lose friends				
Agree	183	121	66.1	58.9 – 72.6
Disagree	183	51	27.8	21.9 – 34.8
Not sure	183	11	6.0	3.3 – 10.4
Measure of Vulnerability				
Question: What is the possibility that you get infected with HIV? (read the choices)				
Very Possible	187	63	33.7	27.3–40.7
Somehow Possible	187	61	32.6	26.3.39.6
Not Possible	187	63	33.7	27.3–40.7
Undisclosed				
Measures of Response Efficacy				
Question: When a man and a woman are in a serious relationship, they don't need to use condoms				
True	182	65	35.7	29.1 – 42.9
False	182	111	60.9	53.7 – 67.8
Not sure	182	6	3.3	1.5 – 7.1
Question: There are many ways to become infected with HIV, one might even become infected without having sex				
True	181	163	90.1	84.8 – 93.6
False	181	11	6.1	3.4 – 10.6
Not sure	181	7	3.8	1.9 – 7.8
Question: You can become infected with HIV by having sex without protection even once				
True	181	155	85.6	79.8 – 90.1
False	181	13	7.1	4.2 – 11.9

Variable	Total (N)	Frequency	Percentage	95% CI
Not sure	181	13	7.1	4.2 – 11.9
Measures of Self-Efficacy				
Question: I can persuade my partner including my employer to use a condom during sex even he/she doesn't want				
Agree	173	153	88.4	82.8 – 92.4
Disagree	173	15	8.7	5.3 – 13.8
Not sure	173	5	2.9	1.2 – 6.6
Question: I can refuse to have sex if my partner including my employer does not want to use a condom				
Agree	174	152	87.4	81.6 – 91.5
Disagree	174	12	6.9	3.9 – 11.7
Not sure	174	10	5.7	3.2 – 10.3
Measures of Response Costs				
Question: Using a condom during sex were reduce sexual pleasure				
Agree	170	44	25.9	19.9 – 32.9
Disagree	170	68	40	32.9 – 47.5
Not sure	170	58	34.1	27.4 – 41.5
Question: Many girls become FDWs because they can't find other jobs				
Agree	175	67	38.3	31.4 – 45.7
Disagree	175	105	60.0	52.6 – 66.9
Not sure	175	3	1.7	0.6 – 4.9

Overall risk perception score for each respondent was generated by adding up the scores on the 18 questions based on risk perception PMT constructs, with a possible minimum of zero and a possible maximum of 18 where those respondents who had high risk perception scored high as compared to those with low risk. The total perception scores ranged from four to thirteen with a mean of 7.7 (95% CI 7.4–8.0) and standard deviation 1.7. About one sixth of the respondents (16.9%) scored more than half (see figure 2 below).

Figure 2: Distribution of overall risk perception score for theFDWs



Influence of demographic factors on risk perception score

There was no demographic characteristic that was significantly associated with the risk perception score (see table 4). However there was a weak association between the risk perception score and the duration the respondent had worked (p-value =0.07).

Table 4: Influence of demographic factors on risk perception score

Factor	Factor levels	n	Mean	Std deviation	p-value
Socio-economic classification	Low	69	7.68	1.827	.985
	Medium	39	7.64	1.769	
	High	28	7.71	1.243	
	Total	136	7.68	1.695	
Age group	18-30 yrs	94	7.54	1.529	.245
	31 - 40 yrs	30	8.10	1.882	
	41 and above	10	7.50	1.434	
	Total	134	7.66	1.613	
Highest level of education completed	Primary	65	7.63	1.737	.891
	Secondary/college	67	7.67	1.691	
	Total	132	7.65	1.708	
Duration as domestic worker	Less than 1 year	61	7.41	1.667	.070
	Over 1 yr	71	7.94	1.681	
	Total	132	7.70	1.689	
Ever been married	No	98	7.77	1.698	.312
	Yes	33	7.42	1.582	
	Total	131	7.68	1.670	
Had steady boyfriend	No	56	7.45	1.617	.172
	Yes	74	7.86	1.793	
	Total	130	7.68	1.725	

Sexual behaviour and condom use among FDW

Age of sexual debut was 18 years or less for 43.3% (95% CI 35.5 – 51.6) of those who had had sex compared to 38.5% (95% CI 30.9 – 46.6) who had had first sex at the age of 19 years and above. Slightly over half 50.7% (95% CI 42.6 – 58.8) had used condom during their last sexual encounter with 47.4% (95% CI 36.5 – 58.5) of them making a joint decision with their sexual partners. About 20.4% (95% CI 14.4 – 28.1) of them frequently had sex with regular partner. Majority of the FDWs 58.5% (95% CI 51.1 – 65.5) had ever taken an HIV test. About 20.8% (95% CI 14.1 – 29.7) took the test as

requirement by either their employer or other reasons. An overwhelmingly majority of the FDW interviewed 93.1% (95% CI 88.3 – 96.1) said they would be available and willing to go for HIV testing if available at accessible and convenient locations and time.

Four fifths (81.5%, 95% CI 85.1 – 86.5) of the FDWs had ever had sex compared to 18.5% (95% CI 13.5 – 24.9) who never had sexual intercourse. Of those who were sexually active, 57.7% (95% CI 49.5 – 65.6) had had sex in the last 12 months prior to the interview; 11.2% had had sex with multiple sexual partners in the last 12 months prior to the interview; 10.8% (95% CI 10.3 – 22.3) had had sex for money or other rewards; and 4.8% (95% CI 3.3 – 11.3) of them had forced sex with their employers. Most remarkable was the fact that 37.4% of the FDWs did not use a condom the last time they had had sex, see figure 3.

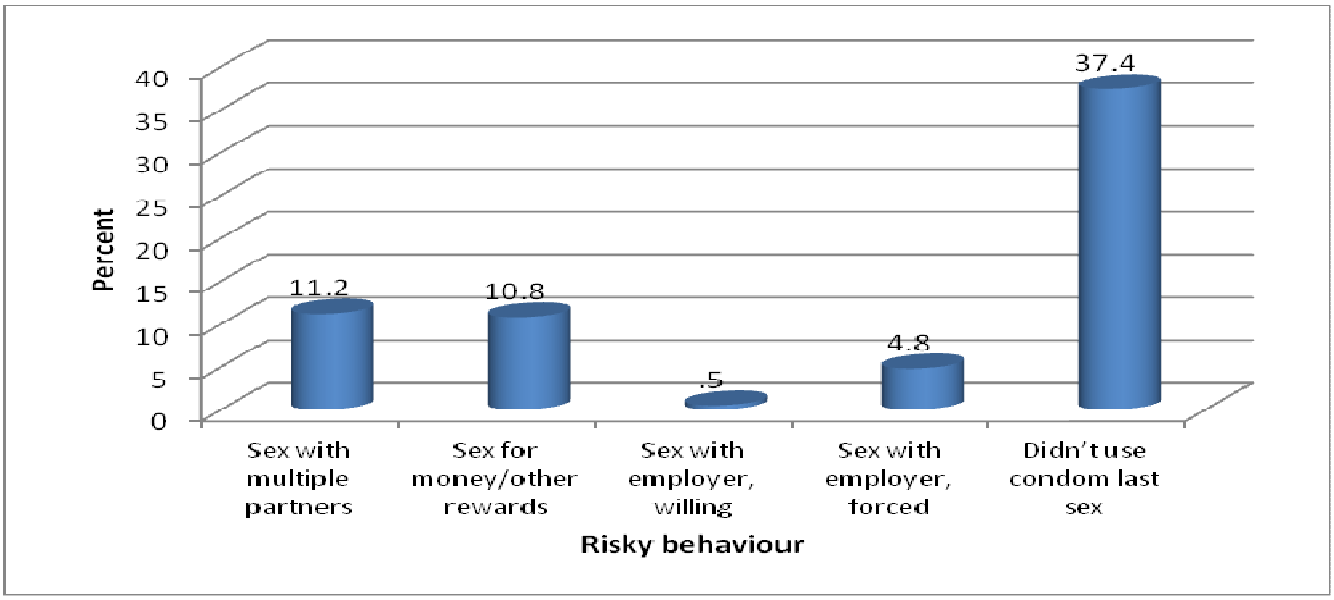


Figure 3: Proportion of FDW engaging in high risk sexual behaviour in the last 12 months prior to interview

Overall score of exposure to risky sexual behaviour for the group of FDWs

The composite score on risky behaviour was calculated by adding up the scores on five indicators of risky behaviour which included (multiple sexual partners, sex for payments or reward, sex with employer, forced sex with employer and condom use) with a possible minimum of zero and a possible maximum of five; those with more risky behaviours scored highest. The results showed that the respondents' behaviour scores ranged from zero to 3, with a mean of 0.9 (95% CI 0.8 – 1.1) and standard deviation 0.9. Nearly two-fifths of the respondents (38.7%, 95% CI 0.3-0.5) had a score of zero (see Figure 4) indicating that they were not involved in any risky behaviour with the 12 months preceding the study..

Figure 4: Distribution of risky sexual behaviour scores

Influence of demographic factors on risky sexual behaviour score

The socio-economic classification of the area where the FDWs worked, age, ever been married and having a steady boyfriend had a statistically significant influence on risky behaviour score (Table 5) However, the level of education and the duration worked as a domestic worker did not have a statistically significant association with knowledge of HIV and AIDS.

Table 5: Influence of demographic factors on risk behaviour score

Factor	Factor levels	n	Mean	Std deviation	p-value
Socio-economic classification	Low	1.20	54	.919	.001
	Medium	.83	40	.844	
	High	.47	30	.681	
	Total	.90	124	.887	
Age group	18-30 yrs	1.01	79	.870	.023
	31 - 40 yrs	.91	32	.963	
	41 and above	.20	10	.422	
	Total	.92	121	.891	
Highest level of education completed	Primary	.98	59	.881	.421
	Secondary/college	.85	61	.891	
	Total	.92	120	.885	
Duration as domestic worker	Less than 1 year	.85	54	.810	.372
	Over 1 yr	1.00	64	.959	
	Total	.93	118	.894	

Factor	Factor levels	n	Mean	Std deviation	p-value
Ever been married	No	1.06	84	.923	.005
	Yes	.57	37	.728	
	Total	.91	121	.894	
Had steady boyfriend	No	.60	52	.748	.001
	Yes	1.15	68	.919	
	Total	.91	120	.889	

Independent determinants of risky sexual behaviour

A linear regression model was constructed to investigate the independent determinants of risky behaviour using the backward elimination method. The resulting parsimonious model whose coefficient of determination (adjusted R-square) was 22.3% indicated that the social economic class, having a steady boyfriend and the risk perception score were statistically associated with risky sexual behaviour (Table 6).

Table 6: Independent determinants of risky sexual behavior

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
Constant	-.690	.444		-1.553	.124
Medium SES	.421	.251	.201	1.681	.097
Low SES	.805	.215	.438	3.736	.000
Have a steady boyfriend	.477	.183	.254	2.611	.011
Risk perception score	.119	.053	.217	2.273	.026

Discussion

High risk sexual behavior among the FDWs interviewed in this study was associated with risk perception, socio-economic class of employer and having a steady or regular sex partner.

An increase in risk perception score was associated with increased risky behaviour score (β = 0.119). This finding was consistent with that of Akwara *et al* (2003) which reported positive association between perceived risk and self-reported risky sexual behaviour for both women and men in Kenya. While it is often hypothesised that risk perception is the primary motivation for avoidance of risky behaviour, and that high risk perception triggers precautionary behaviour; such relationship between perception and behaviour can be reciprocal. Perceived high vulnerability or exposure to risk, may itself be a reflection of current and recent high risk and less precautionary behaviour (20).

Other previous studies have shown mixed results of positive, negative and null association between HIV related risks perception and risky sexual behaviour. This inconsistency is attributed to use of cross-sectional study design used in most of these studies which report association and not causal relationships. Questions posed on sexual behaviour in such cross-section studies often involve previous behaviours and unclear time frame with respect to risk perception (21). Therefore, as was the case in this study which used cross-section study design too, the respondents who had engaged in high risk sexual behaviour were more likely to self-report a high risk perception.

Compared to the high socio-economic classes, domestic workers employed in the low socio-economic class areas were more likely to engage in high risk sexual behavior unlike those in middle income class as indicated by the positive beta coefficient of $\beta = 0.805$ and $\beta = 0.421$ respectively. In KDHS report of 2011, the place of residence was related to high risk sexual behavior; women in urban areas were more likely to have multiple sex partners; use of condoms generally increases with the level of education; men with no education and those who are in the lowest wealth quintile are more likely than other men to report having multiple sexual partners in the 12 months before the survey and less likely to report using a condom with such partners. Employers in lower socio-economic class are more likely to employ poorer, younger, less educated and low remunerated domestic workers. Such poor women are indeed less likely to be knowledgeable about HIV and AIDS or the sexual transmission routes of the virus and therefore more vulnerable to sexual exploitation (22).

In this study, having a steady sex partner was also associated with increased chances of engaging in high risk sexual behavior. These results are similar to those by Lansky *et al* in South Africa on partner specific sexual behavior among persons with both steady (also referred to us regular or main) and casual sex partners (23). In Lansky report, both men and women were more likely to use alcohol or drugs before or during sex with main partners only (15%) than with casual partners only (1–3%). Women with main and casual partners were more likely to have oral sex only with main partners than only with casual partners (37% vs. 3%), and were more likely to use condoms only with casual partners than only with main partners (33% vs. 4%). The greater chances of reporting high risk sexual behavior among persons with steady sex partner could also be due to lower self-reported risk perception.

Conclusion

Based on the results described above, the following conclusions were made:

- Two thirds of FDWs in Nairobi engaged in high risk sexual behaviors such as having unprotected sex, having multiple sex partners, engaging in sex for rewards, and having forced sex with employer; they were therefore at high risk of HIV infection.
- Majority of FDWs in Nairobi were in their early youth years, had less than primary school education, unmarried, frequently change work-places (mobile),
- There was an almost equal distribution between FDWs perceiving self as being high risk of HIV infection and those perceiving self as being at low risk perception, with no statistical significance in the distributions.

- High risk sexual behavior among the FDWs interviewed in this study was associated with risk perception, socio-economic class of employer and having a steady or regular sex partner.

Recommendations

i. The finding that more than two third of the FDW interviewed were engaged in unsafe sexual practices warrants further studies to determine the prevalence of high risk sexual behaviour and HIV among domestic workers in Kenya.
ii. Public health education programs aimed at raising awareness on HIV and modifying risk perception and high risk sexual behaviour should be designed to target the FDWs.
iii. A cohort study with stronger randomization plan should be conducted to further ascertain the relationships between high risk sexual behaviour and other factors such as knowledge of HIV, socio-demographic factors and risk perception.
iv. Because other literatures suggest that majority of domestic workers in Nairobi are children, it would be prudent to conduct a similar study targeting child domestic workers.

a. Limitations

i. This study did not include determination of serological status of the female domestic workers, given the high proportion of those engaging in high risk sexual behaviour, an accompanying test for HIV and STIs would provide a more accurate picture of their vulnerability to HIV and STIs.
ii. The above conclusions should be considered in light of limitations in sampling. The study employed week random sampling due to lack of reliable sampling frame and population of domestic workers in Kenya. The difficulty in accessing the female domestic workers and limited resources reduced the ability for random selection of the respondents.
iii. Positive association between risky sexual behaviour and high risk perception found in this study may need to be confirmed by cohort studies because of inherent in the weak cross-sectional study designs which was also used in this study.
iv. There was scare literature on sexual behaviour of female domestic workers and associated factors which limited comparisons from Kenya

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