

Risky Sexual Behaviour among Male Immigration and Correctional Personnel in Kano State, Nigeria, 2018

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Abstract

Background Worldwide, uniformed personnel have been recognized as a population at high risk for sexually transmitted infections because of their high mobility, power differentials and affluence. However, limited studies have been conducted on risky sexual behaviour (RSB) among male uniformed personnel in Nigeria. We conducted this study to determine the prevalence and identify the predictors of RSB among male immigration and correctional personnel in Kano State.

Methods We conducted a cross-sectional study among 306 male immigration and correctional personnel using multi-stage sampling technique. A pre-tested self-administered structured questionnaire containing sociodemographic and variables associated with RSB was used for data collection. Indicators of RSB included transactional sexual intercourse, sexual intercourse with casual acquaintances and multiple non-regular sexual partners over the last 12 months. Data were analysed using descriptive statistics, Chi-square test and logistic regression ($\alpha=0.05$).

Results Mean age of the respondents in the immigration and correctional services was 37.9 ± 9.3 and 38.0 ± 8.1 years respectively. Overall prevalence of RSB was 15.1% (9.2% and 20.9% among correctional and immigration workers respectively). The identified predictors of RSB were service group, marital status and attending club house prior to sexual intercourse. The likelihood of RSB was lower among the correctional personnel (aOR=0.38, CI=0.17-0.80) than the immigration officers. Being married is protective of RSB (aOR=0.38, CI=0.18-0.81) while attending club house prior to sexual intercourse predisposes the uniform personnel to RSB (aOR=3.90, CI=1.30-11.68).

Conclusions Risky sexual behaviour was highly prevalent among the investigated uniform men but was higher among immigration officers than the correctional personnel.

Background

Sexual behaviour is a complex private activity which is subject to social, cultural, moral and legal considerations [1]. Although there is no specific definition for risky sexual behaviour (RSB), it is usually referred to any behaviour that predisposes individuals to the risk of contracting sexually transmitted infections including HIV/AIDS and unplanned pregnancy [2]. The RSB is often classified into two broad categories; indiscriminate sexual behaviours like keeping multiple partners, having risky, casual or unknown partners and also failure to take protective actions, such as use of condoms and birth control [3].

Uniformed personnel are often described as being a high-risk population for RSB as they are primarily male, young, sexually active, and often lack access to comprehensive sexual and reproductive health information and services [4]. They belong to mobile populations group and usually spend long period of time away from home, their families, spouses, or partners, which may increase their susceptibility to engaging in casual sex with non-stable partners or sex workers [5]. Their access to ready cash in their

place of deployment makes them a focus of patronage by both casual sexual partners and commercial sex workers [6].

Willingness to engage in risk-taking is central to many uniformed services and is strongly associated with readiness for combat [7]. This core attribute of many uniformed services might predispose personnel to engage in other high-risk behaviours, such as unprotected sex [7]. The impact of RSB on the uniformed services in the African countries is alarming [8]. It is estimated that sexually transmitted infection rates among uniformed personnel are generally 2 to 5 times higher than in civilian populations [8, 9] and prevalence rates of HIV between 5.8% and 26.7% have been reported from different studies among uniformed services personnel in countries in Africa [10]. With this high prevalence of infection and risky sexual behaviour among uniformed men, sustenance of high HIV and STIs prevalence in Africa is imminent if unchecked.

Despite the fact that uniformed personnel have been recognized as a population at high risk for sexually transmitted infections (STIs) and HIV infection [11, 12], limited research exists on STIs and risky sexual behaviour among uniformed personnel most especially in Nigeria immigration and correctional services. Both Nigeria immigration and correctional services are para-military agencies under Federal Ministry of Interior. The main mandate of immigration service is to contribute to national security by protection land borders and other points of entry into Nigeria while the core business of correctional service is to provide a rehabilitation and correctional facility for offenders who are awaiting trial or already convicted.

Periodic national survey carried by the Federal Ministry of Health in Nigeria under Integrated Behavioural and Biomedical Surveillance Survey (IBBSS) has consistently involved members of armed forces and the police as study participants [13]. Conditions of service of Nigeria immigration and correctional workers are similar to those of military and police, although their risk patterns could be different because of the nature of their postings and duties. To fill this gap, this study determined the prevalence and identified predictors of risky sexual behaviour among male immigration and correctionals personnel in Kano State.

Methods

Study Area

This study was conducted between September and December 2018 in Kano metropolis. Kano State is in the North-western geopolitical zone of Nigeria. Administratively, the State has 44 Local Government Areas. The State is densely populated with over 15 million people according to the estimates projected from the 2006 Nigeria population census exercise.

The Nigeria immigration service in Kano State has a total of seven (7) different units. The units include the command headquarters, Mallam Aminu Kano international airport, farm center passport office, Immigration training school, Amana city passport office, anti-human trafficking and resident permit office. The Kano State command of Nigeria Correctional Service comprises of the command headquarters,

Goron Dutse correctional center, Kano central correctional center, Wudil correctional center and small satellite correctionals center located in Rano, Bichi, Gwarzo, Sumaila and Dawaki Tofa LGAs. Both immigration and correctional services have small health facility each and limited accommodation was provided for their personnel. The personnel are posted from different parts of Nigeria and in most situation, they may not move with their families with the view that they could be reposted to another location at any time.

Study Population

Study population consisted of personnel of Nigeria immigration and correctional services in Kano State. Immigration and correctional personnel (n=306) with minimum of 12 months at duty post in Kano State were included in the study.

Study Design and Sampling Technique

It was a cross-sectional descriptive study. Using formula for two proportions, a minimum sample size of 290 was obtained. To allow for a non-response of 10%, three hundred twenty-nine personnel were sampled for the study. A 2-stage sampling technique was used to select the eligible participants for this study. At the first stage, 3 units each were randomly selected from the 7 units and 9 units in the immigration offices and correctional centers in Kano state respectively. The 3 units selected among the immigration offices were farm center passport office, immigration training school and the immigration command headquarters while correctional command headquarters, Goron Dutse correctional and Kano central correctional centers were the 3 units selected from the correctional service. The list of the personnel in the selected units was compiled in descending order based on their seniority in rank. The calculated sample size was proportionally allocated to each of the three selected units based on the number of eligible personnel in the unit. Thereafter, the participants were selected from each unit using simple random sampling technique.

Data Collection Tool and Study Variables

A pre-tested self-administered structured questionnaires was used to collect information on respondents' socio-demographic variables (age, level of education, marital status), rank, duration in service, keeping multiple non regular sexual partners, engagement in casual intercourse and transactional sex.

Independent variables were age, duration in service, educational qualifications, rank, marital status, religion and ethnic group. The dependent variable, risky sexual behaviour, was measured using a series of high-risk sexual behaviour questions based on the past 12 months sexual experience [14]. The high-risk sexual behaviours examined are; transactional sexual intercourse in the past 12 months, having more than one non-regular sexual partner in the past 12 months and sexual intercourse with casual acquaintances in the past 12 months. For the purpose of this study, any sexual relationship that has lasted, or is expected to last, for 12months is classified as regular while any other sexual relationship is classified as non-regular. To measure transactional sex, participants were asked how many non-regular

partner with whom they had sexual intercourse in exchange for money/favours or gifts during the past 12 months. Respondents that reported at least one transactional sexual partner were classified as having transactional sex.

For sex with multiple sexual partners during the past 12 months, respondents were asked how many non-regular partners they had sex with during the past 12 months, those that reported more than one non-regular sexual partner were classified as having multiple sexual partners.

Sex with casual acquaintances was measured by asking the the respondents the sexual experience with partner to whom they were not married to, had never lived with, were not their boyfriend or girlfriend and did not pay for sex during the past 12 months. Respondents that reported at least one casual sexual partner were classified as having sex with casual acquaintances.

Statistical Analyses

The data were cleaned prior to analysis using IBM SPSS statistical software version 20.0 [15]. Frequency distributions of variables were generated and represented in tables and charts. Chi-square test was used to examine the association between RSB and socio-demographic characteristics. Factors significantly associated with RSB at bivariate level (at most 10% level of significance) and those that were found to be important predictors of risky sexual practices from the literature [16] were used in the logistic regression model for the identification of predictors of RSB. The level of significance was 5.0%.

Ethical Considerations

The study ethical approval was obtained from the Health Research Ethics Committee of the Aminu Kano Teaching Hospital. (NHREC/21/08/2008/AKTH/EC/2242). Permission to conduct this study was given by Comptrollers of immigration and correctional Services in Kano State. Written informed consent was obtained from all respondents selected for participation in this study.

Results

The mean age of respondents in the immigration and correctional services was 38.1 ± 9.4 and 39.4 ± 7.9 years, respectively. Most of the respondents (42.5% immigration and 56.6% correctional) in the study were in the age group 35-49 years. About a quarter (24.2%) of immigration and 37.5% of correctional respondents were junior officer. Majority of respondents from both services (71.7% immigration and 93.4% correctional) were Hausa and of the Islamic faith (76.5% and 94.7%), respectively (Table 1).

Table 1 Socio-demographic characteristics of immigration and correctional personnel in Kano State, Nigeria (N=305)

Characteristics	Correctional	Immigration	Total
	152 (100.0)	153 (100.0)	305 (100.0)
Age (years)			
18-24	2 (1.3)	4 (2.6)	6 (2.0)
25-34	42 (27.6)	60 (39.2)	102 (33.4)
35-49	86 (56.6)	65 (42.5)	151 (49.5)
50-60	22 (14.5)	24 (15.7)	46 (15.1)
<i>Mean±σ</i>	<i>39.4±7.9</i>	<i>38.1±9.4</i>	<i>38.7±8.7</i>
Level of education			
Secondary	19 (12.5)	23 (15.0)	42 (13.8)
Tertiary	133 (87.5)	130 (85.0)	263 (86.2)
Religion			
Christianity	8 (5.3)	36 (23.5)	44 (14.4)
Islam	144 (94.7)	117 (76.5)	261 (85.6)
Ethnicity			
Hausa/Fulani	142 (93.4)	110 (71.9)	252 (82.6)
Igbo	0 (0.0)	7 (4.6)	7 (2.3)
Yoruba	2 (1.3)	10 (6.5)	12 (3.9)
Others*	8 (5.3)	26 (17.0)	34 (11.1)
Marital status			
Married	138 (90.8)	117 (76.5)	255 (83.6)
Single	14 (9.2)	36 (23.5)	50 (16.4)
Family Type			
Monogamy	79 (52.0)	110 (71.9)	189 (62.0)
Polygamy	73 (48.0)	43 (28.1)	116 (38.0)
Rank in service			
Junior	57 (37.5)	37 (24.2)	94 (30.8)
Senior	95 (62.5)	116 (75.8)	211 (69.2)
Length in service (years)			
<10	68 (44.7)	79 (51.6)	147 (48.2)
≥10	84 (55.3)	74 (48.4)	158 (51.8)
<i>Median (Range)</i>	<i>11 (2-35)</i>	<i>9 (1-35)</i>	<i>10 (1-35)</i>

*Others include; Kanuri, Tarok, Idoma, Babur, Nupe, Tiv and Bajju.

A significantly higher proportion (18.4%) of correctional officers had sexual intercourse with non-regular partners after visiting a club compared to 9.8% among immigration personnel. However, over a tenth of immigration (11.8%) and 9.2% of correctional personnel drank alcohol prior to sexual intercourse with non-regular partner (Table 2).

Table 2 Risky activities prior to sexual intercourse with non-regular partner in the last 12months among immigration and correctional personnel in Kano State, Nigeria (N=305)

Variable	Correctional(n=152)	Immigration(n=153)	Total
Clubbing			
Yes	28 (18.4)	15 (9.8)	43 (14.1)
No	124 (81.6)	138 (90.2)	262 (85.9)
Drug			
Yes	14 (9.2)	18 (11.8)	32 (10.5)
No	138 (90.8)	135 (88.2)	273 (89.5)
Alcohol			
Yes	12 (7.9)	12 (7.8)	24 (7.9)
No	140 (92.1)	141 (92.2)	281 (92.1)
Smoking			
Yes	12 (7.9)	8 (5.2)	20 (6.6)
No	140 (92.1)	145 (94.8)	285 (93.4)

Overall, about one-fifth (15.1%) of correctional and immigration personnel engaged in risky sexual behaviours in the last 12 months. Specifically, 9.2% of correctional personnel compared to 20.9% of immigration officers were involved in risky sexual behaviours. Out of the three risky sexual practices considered in this study, 2.6% of immigration personnel and less than 1% correctional services were found to have engaged in all the practices (Fig 1).

Ethnicity, marital status and clubbing were significantly associated with risky sexual behaviour among correctional workers while use of performance enhancing drug, alcohol misuse and clubbing (visiting a club house for party) were significantly associated with risky sexual behaviour among immigration personnel (Table 3).

Table 3 Factors associated with risky sexual behaviours among immigration and correctional personnel in Kano State, Nigeria (N=305)

Background Characteristics	Correctional ASRB		χ^2 (p value)	Immigration ASRB		χ^2 (p value)
	Yes	Total		Yes	Total	
Age			0.001			1.110
18-34	4 (9.1)	44	(0.974)	30 (20.7)	145	(0.292)
35+	10 (9.3)	100		16 (25.0)	64	
Level of education			0.405			0.011
Secondary	1 (5.3)	19	(0.525)	5 (21.7)	23	(0.916)
Tertiary	13 (9.8)	133		27 (20.8)	130	
Religion			0.857			1.340
Christianity	0 (0.0)	8	(0.355)	10 (21.7)	36	(0.247)
Islam	14 (9.7)	144		22 (18.8)	117	
Ethnicity			5.533			0.777
Hausa/Fulani	11 (7.7)	142	(0.019)*	25 (22.7)	110	(0.378)
Other tribes	3 (30.0)	10		7 (16.3)	43	
Marital status			6.91			2.645
Married	10 (7.2)	138	(0.009)*	21 (17.9)	117	(0.104)
Single	4 (28.6)	14		11 (30.6)	36	
Family Type			0.165			1.752
Monogamy	8 (10.1)	79	(0.685)	26 (23.6)	110	(0.186)
Polygamy	6 (8.2)	73		6 (14.0)	43	
Rank in service			0.524			0.118
Junior	4 (7.0)	57	(0.469)	7 (18.9)	37	(0.732)
Senior	10 (10.5)	95		25 (21.6)	116	
Length in service (years)			2.384			0.043
<10	9 (13.2)	68	(0.123)	16 (20.3)	79	(0.835)
≥10	5 (6.0)	84		16 (21.6)	74	
Clubbing			6.134			10.567
Yes	6 (21.4)	28	(0.013)*	8 (53.3)	15	(0.001)*
No	8 (6.5)	124		24 (17.4)	138	
Drug			0.475			6.828
Yes	2 (14.3)	14	(0.491)	8 (44.4)	18	(0.009)*
No	12 (8.7)	138		24 (17.8)	135	
Alcohol			0.866			11.022
Yes	2 (16.7)	12	(0.352)	7 (58.3)	12	(0.001)*
No	12 (8.6)	140		25 (17.70)	141	
Smoking			0.866			0.085
Yes	2 (16.7)	12	(0.352)	2 (25.0)	8	(0.770)
No	12 (8.6)	140		30 (20.7)	145	

*Statistically significant difference at $p \leq 0.05$; ASRB: At least one risky behaviour

At the multivariate level, after adjusting for the covariates, service group, marital status and visiting a club remained significant predictors of risky sexual behaviour among correctional and immigration personnel. Respondents from the correctional service were less likely (aOR=0.38, 95% CI=0.17-0.80) to engage in risky sexual behaviour compared to those from immigration service. Correctional and immigration personnel who were married were less likely (aOR=0.38, 95% CI=0.18-0.81) to get involved in risky sexual behaviour compared to those that were married. Correctional and immigration personnel who

went for clubbing prior to sexual intercourse were 3 times (aOR=3.90, 95% CI=1.30-11.68) more likely to be involved in risky sexual behaviour compared to those who did not go for clubbing (Table 4).

Table 4 Logistic regression model of predictors of risky sexual behaviour among immigration and correctional personnel in Kano State, Nigeria

Background Characteristics	OR (95% C.I)	Model 1	Model 2
		aOR (95% C.I)	aOR (95% C.I)
Service group			
Correctional	0.38(0.19-0.75)**	0.31(0.14-0.63)**	0.38(0.17-0.80)***
Immigration	1.00	1.00	1.00
Age			
18-34	1.50(0.79-2.83)		
35+	1.00		
Level of education			
Secondary	0.93 (0.36-2.35)		
Tertiary	1.00		
Religion			
Christianity	1.84 (0.83-4.04)		
Islam	1.00		
Ethnicity			
Hausa/Fulani	0.72 (0.33-1.55)		
Other tribes	1.00		
Marital status			
Married	0.32 (0.15-0.66)**		0.38(0.18-0.81)***
Single	1.00		1.00
Family Type			
Monogamy	1.90 (0.94-3.84) ^a		1.70(0.80-3.62)
Polygamy	1.00		1.00
Rank in service			
Junior	0.67 (0.32-1.38)		
Senior	1.00		
Length in service (years)			
<10	1.34 (0.71-2.51)		
10+	1.00		
Clubbing			
Yes	3.47(1.66-7.25)**	3.88(1.32-11.39)***	3.90(1.30-11.68)***
No	1.00	1.00	1.00
Drug			
Yes	2.99(1.31-6.83)**	0.89(0.18-4.23)	0.80(0.16-3.83)
No	1.00	1.00	1.00
Alcohol			
Yes	3.96(1.61-9.69)**	1.57(0.26-9.33)	1.78(0.29-10.67)
No	1.00	1.00	1.00
Smoking			
Yes	1.45(0.46-4.54)		
No	1.00		

Statistically significant difference at bivariate level $p \leq 0.05$ *Statistically significant difference at multivariate level $p \leq 0.05$ OR: Odds ratio, aOR: adjusted odds ratio

Discussion

The study aimed to determine the prevalence and identify the predictors of risky sexual behaviour among immigration and correctional workers in Kano State. Overall, prevalence of risky sexual behaviour was found to be high among the study participants. The study showed that one in every five immigration and correctional workers in Kano State engaged in risky sexual behaviour. Looking at each arm of the study participants, there appeared to be higher proportions of immigration personnel engaging in risky sexual behaviour compared with correctional workers. However, the prevalence of risky sexual behaviour from the study was far lower than that reported in southwest Nigeria [17,18]. The higher prevalence of risky sexual behaviours among immigration personnel could be due to their higher rate of mobility. Based on their statutory mandates, immigration personnel have opportunity of serving at foreign embassies, command headquarters, passport offices, air, sea and land points of entry. This enables immigration personnel to have high visibility and wide network of social contacts unlike correctional personnel who are mostly restricted to command headquarters and prison yards dealing with people convicted of, or awaiting trial for, a criminal offence.

About one-tenth of both immigration and correctional workers had more than one non-regular sexual partner. This figure is far below 46% reported among uniformed personnel in Cote D'Ivoire [19]. The contextual nature of the studies environment can explain the difference in the outcomes. The conservative and restrictive nature of northern Nigerian culture (sharia laws are being enforced), especially, in the ancient city of Kano and other parts of the state where this study was conducted could be an important reason for the low prevalence found in our study. Less than one-tenth of the study participants had sexual intercourse with casual acquaintances. This finding contrasts with what was reported in Dominican Republic and Haiti in which 40% of uniformed personnel stationed across the border zone reported having casual sex [20]. The variation in results could be due to the differences in respondents, methodology and sexual culture at each location. Additionally, people hardly engage in non-regular sexual relationship without gain for favour, gift or money.

Over a tenth of correctional (12.8%) and immigration (15.2%) personnel in Kano State were found to have paid or exchanged gifts with sexual partners in the last 12 months. These findings corroborate earlier outcome of a similar study which was conducted among uniformed personnel in Rwanda and Afghanistan [21]. However, our findings were much lower than 43% that was reported in a nationwide survey among Thai uniformed personnel. The differences in findings could be due to the fact that most new recruits are likely to be single or have non-regular partners, less inclined to abstinence and more likely to engage in transactional sex [22].

The proportion of immigration and correctional personnel who had multiple sexual partners in Kano State was in line with to what was reported in Southeast Nigeria [23]. However, the higher percentage of immigration and correctional personnel who had multiple sexual partners was still lower than what was reported among Ethiopian officers [24]. This high risk behaviour can be attributed to several factors. Personnel are often posted far away from their spouses for a long period of time. Boredom or peer pressure could create enhanced libido leading to keeping multiple sexual partners. Moreover, the job ethos and training that encourage willingness to take risks could also lead personnel to participate in

risky sexual behaviour. This suggests the need for effective educational programs aimed at behavioural change for immigration and correctional personnel.

Service group, marital status and clubbing were identified to be independent predictors of risky sexual behaviour among the correctional personnel in Kano State. These findings were in contrast to a survey which evaluated sexual risk taking and related behaviours among uniformed personnel in four regions of Angola [25] in which alcohol misuse before sex was found as an independent predictor of risky sexual behaviour. Alcohol and drug use were found to be associated with risky sexual behaviour among correctional and immigration personnel however, the two variables were found not to be predictors of risky sexual behaviour among the immigration and correctional personnel in Kano State. The study is not without limitation. Due to self-reporting nature of the study, there may be some level of social desirability bias because some study participants might have under or over reported the degree to which they engaged in high-risk sexual behaviours. Assurance of confidentiality likely minimized this bias.

Conclusions

Risky sexual behaviour was highly prevalent among the investigated uniform men. However, the prevalence of RSB was higher among immigration officers than the correctional personnel.

Abbreviations

AFENET: African Field Epidemiology Network; NFELTP: Nigeria Field Epidemiology and Laboratory Program; OR: odds ratio; aOR: Adjusted Odds Ratio; RSB: Risky Sexual Behaviour; STI: Sexually Transmitted Infection; HIV: Human Immunodeficiency Virus; IBBSS: Integrated Behavioural and Biomedical Surveillance Survey; IBM: International Business Machine; SPSS: Statistical Package for the Social Sciences; LGA: Local Government Area; AKTH: Aminu Kano Teaching Hospital

Declarations

Ethics approval and consent to participate

Ethical approval was obtained from the Ethics and Research Committee of Aminu Kano Teaching Hospital (NHREC/21/08/2008/AKTH/EC/2242). Permission to conduct this study was given by Comptrollers of immigration and correctional Services in Kano State. Informed written consent was obtained from the study participants before the commencement of the study. Participants were informed that participation was entirely voluntary and were given the option of voluntary withdrawal of their participation at any stage of the study without sanction or penalty. Information obtained from the respondents was treated as confidential.

Consent for publication

Not applicable.

Availability of data and materials

Data can be made available by the corresponding author based on reasonable request.

Competing interests

The authors declare that they have no competing interests.

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Authors' contributions

NA was the Principal Investigator, conceptualized and designed the study, collected, analysed and interpreted the data, and wrote draft manuscript. ZI and AMJ were academic supervisors and contributed to study design, data interpretation, drafting and formatting of manuscript. AAS and ABU contributed to data interpretation, drafting, and revision of the manuscript for intellectual content. All authors read and approved the final revised manuscript.

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Figures

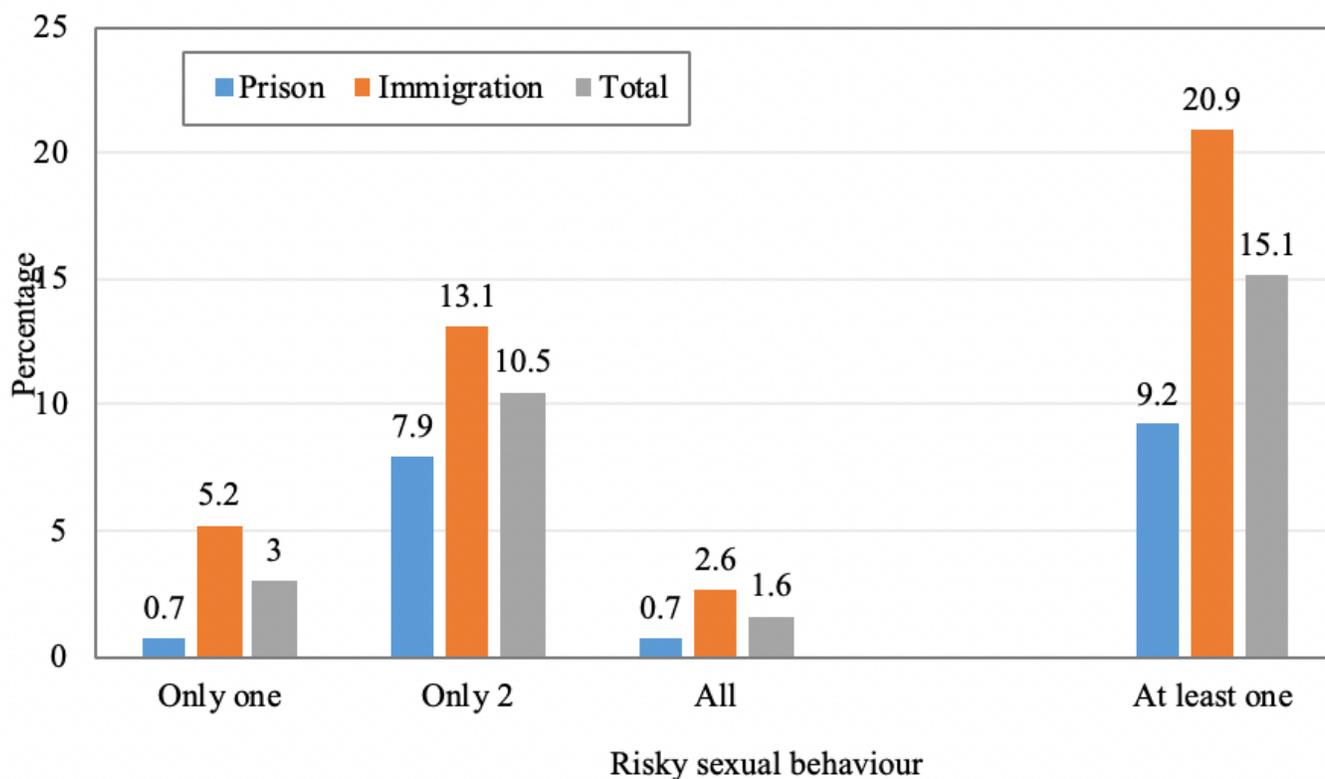


Figure 1

Prevalence of risky sexual behaviour among immigration and correctional personnel in Kano State, Nigeria

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