

SEXUAL RISK BEHAVIOURS AND COMPULSIVE SEXUAL BEHAVIOUR DISORDERS AMONG MILITARY PERSONNEL IN IBADAN

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ABSTRACT

Background: Military personnel (MP) are exposed to situations such as loneliness and alcohol use that lead to sexual risk behaviours (SRBs) with serious implications for the spread of sexually transmitted infections (STIs). Compulsive sexual behaviour disorder (CSBD) is a psychosexual condition that is characterized by a consistent failure to control sexual behaviour and continuation of the behaviour despite the consequences. The prevalence of CSBD is underreported due to the sensitive nature of the behaviour. This study thereby assesses SRBs and CSBD and associated factors among MP.

Methods: A cross-sectional study among 406 MP in Ibadan using a convenient sampling method to select the personnel serving in the two military barracks in Ibadan. MP available on the days of data collection were interviewed. A semi-structured, interviewer-administered questionnaire was used to obtain information on SRBs and CSBD. Descriptive and inferential statistics were done and the Chi-Square test was used to test for association between independent and outcome variables at $p < 0.05$.

Results: The mean age of respondents was 30.1 ± 10.1 years. Above half (52.7%) were aged 20 - 30 years, 70.7% were males, and 56.6% were not living with a partner. The prevalence of SRBs among respondents was 79.6% while the prevalence of CSBD was 6.4%. Gender and marital status were predictors of SRBs.

Conclusion: The majority of MP engaged in SRBs while less than one-tenth had CSBD. Gender and marital status were predictors of SRBs. Risk reduction counseling was recommended for MP.

Keywords: Sexual risk behaviours, Compulsive sexual behaviour disorder, Military personnel

INTRODUCTION

The attainment and maintenance of sexual health require an optimistic and respectful approach to sexuality and sexual relationships, and the possibility of having pleasurable and safe sexual experiences that are free of coercion, discrimination, and violence.¹ Sexual activity is the most intimate of human relationships while sexual behaviour is the most intimate of human interactions.²

Military personnel (MP) belong to the sexually active age group and also the high risk-taking group due to the nature of their job. Nigerian Military Personnel (NMP) are easily influenced by peer pressure rather than social convention.³ Sex with multiple partners is a tradition that has also persisted in the Nigerian Navy even in the era of Acquired Immunodeficiency Syndrome (AIDS).³ Other SRBs common among MP include multiple sexual partnering, concurrent sexual partnership, engaging in sexual activity under the

influence of drugs or alcohol⁴, and extreme forms of sexual behaviour such as rape and compulsive sexual behaviour disorder (CSBD).

CSBD is characterized by a persistent pattern of failure to control intense sexual impulses or urges, failing to control repetitive sexual behaviour that is evident over an extended period (e.g., 12 months), and causes marked distress or significant impairment in personal, family, social, educational, occupational, or other important areas of functioning.⁵ It may involve a variety of commonly enjoyable sexual experiences.⁶ It engulfs various types of problematic sexual behaviours, including excessive masturbation, cybersex, excessive or problematic pornography use, telephone sex, strip club visitation, and other behaviours.⁷

Evaluation of the prevalence of CSBD is difficult due to the embarrassment and shame frequently reported

by individuals with CSBD, as well as its lack of awareness and perceived prevalence in society. An estimated CSBD prevalence of 1% to 3% is present among the U.S. adult population⁸. A much higher prevalence of CSBD was found among a sample of US male military veterans⁹. According to Derbyshire¹⁰, many have argued that the prevalence of CSBD may be underreported in the general population due to the sensitive nature of sexual behaviour¹⁰. A prevalence of CSBD among a sample of US male veterans recently returning to civilian life at baseline was estimated as 16.7%.¹¹

The stigma of not being able to control sexual impulses carries with it a connotation of depravity and moral selfishness. Stigmatization in the media and criminalization of “sexual offenders” create an atmosphere that does not promote treatment and prevention. As a result, access to care and seeking care, even when one recognizes that sexual behaviours are out of control, is a decision faced with barriers and limitations.¹²

Most research has focused on SRBs and their association with HIV and STIs⁷. Behaviours such as CSBD may be inadvertently overlooked by clinicians focusing on other more acute psychiatric problems and disorders such as Post Traumatic Stress Disorder (PTSD), and alcohol use disorder among others.¹³

While MPs engage in SRBs and experience frequent co-occurrence of CSBD with psychiatric disorders and traumatic experiences¹⁴, there is a huge gap in knowledge on SRBs and CSBD among MPs across different populations.

Across the African continent, there are only very few studies documenting the lifetime or current prevalence of CSBD. Most of what is known about the epidemiological nature of this disorder are from clinical treatment programmes focused on sexual addiction and a couple of studies conducted in the U.S. and Sweden.^{13,15} It is therefore imperative to assess the prevalence and factors associated with SRBs and CSBD in a developing country like Nigeria with the aim of addressing the knowledge gap and proffering solutions.

METHODOLOGY

Study Area

The study was carried out in Ibadan, the capital of Oyo state. Ibadan has a population of over 3 million residents and it is the most populous city in Oyo State, South-West Nigeria (National Population Commission [NPC], 2006). It is the third most populous metropolitan city in Nigeria. The geographical

coordinate of Ibadan is latitude 7.3775 N and longitude 3.9470 E (7 23' 47" N 3 55'0" E).

The Nigerian Army has two bases located in Ibadan namely; Nigerian Army 81 Battalion Headquarters, Mokola, and Nigerian Army 2nd Division Headquarters, Odogbo cantonment. The total population of MP in Ibadan is at least two thousand (2000). Consent was obtained from the Commanding Officer and the General Officer Commanding (GOC), of both barracks, respectively, after multiple attempts and refusals.

Study Population

This study was carried out among men and women of the Nigerian army who were present at the cantonment during the course of the research.

Inclusion Criteria

In-service MP within the sexually active age group (18 years and above) that had been on active deployment and had been at least 6 months in service.

Exclusion Criteria

Other persons at the study site who were not MP.

Study Design

This study utilized a descriptive cross-sectional design.

Sample Size

A total number of 406 respondents were selected using Leslie Kish's (1965) formula while adopting a 50% previous prevalence due to a lack of local data. Convenience sampling was used to select respondents to achieve the required sample size. Any MP who was available and gave consent on the days of data collection was interviewed.

Data Collection Tool

A quantitative semi-structured interviewer-administered questionnaire was used for this study. It comprised four sections namely:

Section A: Socio-demographic characteristics such as age, level of education, marital status, etc.

Section B: Job details such as number of years in services, international posting, etc.

Section C: SRBs such as sex under the influence of alcohol, sex with sex workers in the last 3 months, etc.

Heavy alcohol intake was measured as more than four (4) bottles for men and more than three (3) for women in a day;

Section D: Sexual history such as sexual experience before and after joining the army, history of abuse, HIV status, etc.; and

Section E: Part I: CSBD such as any or cluster of hypersexual behaviours. There are seven core diagnostic

criteria questions for CSBD (five A and two B criteria). Each criterion is rated on a 5-item severity index (0 - 4) so the total score can range from 0 to 28 points as a dimensional measure of the diagnostic criteria and associated adverse consequences. To screen positive for a probable diagnosis of a CSBD, a person must score 3 or 4 points on at least 4 of the five A criteria, and score 3 or 4 points on at least 1 of the two B criteria. Thus, the minimum total score to reach a probable diagnosis of CSBD would be 15 points gathered from at least four A and one B criteria. The maximum summed score would be 28 points.

Part II: Problematic Sexual-Orientation such as pornography, masturbation, cybersex, etc.

The instrument was developed based on general standards and existing literature. Pretesting of the questionnaire was conducted among a sample of 30 MP who were permanent staff from Tigers Officer Mess, Ikolaba, Ibadan. English and Pidgin were the widely spoken languages by MP, so the interviewer communicated with MP accordingly.

Data Collection Procedure

Data were collected daily till data collection was completed. Data were entered, cleaned, and analyzed

using Statistical Package for Social Science (SPSS) version 24.

RESULTS

A total response of 406 was obtained from both military barracks, and Table 1 shows the sociodemographic characteristics of the respondents. The mean age was 30.1 ± 10.1 years. Above half 214 (52.7%) were aged 20 - 30 years. More than two-thirds of 287 (70.7%) were males and 230 (56.6%) were not currently married or not living with a partner. Nearly two-thirds of 265 (65.3%) were Christians and more than 61.1% (248) of the respondents had obtained secondary education. The most represented ethnic group was Hausa (132), accounting for 32.5% of all respondents. More than half 219 (53.9%) of the respondents were the least earners.

Table 2 shows the distribution of respondents by their sexual history and abuse. The majority of 325 (80.0%) had ever had sexual experience. Slightly above two-thirds 219 (67.4%) of sexually experienced respondents had sexual experience before joining the army while 288 (88.6%) sexually experienced respondents had sexual experience after joining the army. Only 77 (19.0%) of all the respondents had experienced at least

Table 1: Sociodemographic characteristics of respondents (N=406)

Variables	Frequency	Percentage
Age group (years)		
≤ 20	60	14.8
21-30	214	52.7
>30	132	32.5
Mean±SD	30.1±10.1	
Gender		
Male	287	70.7
Female	119	29.3
Marital status		
Not currently married/Not living with a partner	230	56.6
Currently married	176	43.4
Religion		
Islam	141	34.7
Christian	265	65.3
Level of education		
Primary	10	2.4
Secondary	248	61.1
Tertiary	148	36.5
Ethnicity		
Yoruba	116	28.6
Hausa	132	32.5
Igbo	72	17.7
Others *	86	21.2
Income (Naira)		
≤60,000	219	53.9
60,000	169	41.6
No response	18	4.5

*Idoma, Urhobo, Fulani, Efik, etc.

Table 2: Distribution of respondents by sexual history and abuse (N=325)

Variables	Frequency	Percentage
Ever had sexual experience (N=406)		
Yes	325	80.0
No	81	20.0
Sexual experience before joining the army (N=325)		
Yes	219	67.4
No	106	32.6
Sexual experience after joining the army (N=325)		
Yes	288	88.6
No	37	11.4
Any form of abuse during childhood (N=406)		
Yes	77	19.0
No	329	81.9
History of lifetime physical abuse (N=406)		
Yes	76	18.7
No	330	81.3
History of lifetime sexual abuse (N=406)		
Yes	41	10.1
No	365	89.9
Lifetime pattern of Abuse (N=406)		
None	313	77.1
One	69	17.0
both	24	5.9
Ever insisted that someone have sex with you (N=406)		
Yes	51	12.6
No	355	87.4
Ever been coerced into having sex (N=406)		
Yes	48	11.8
No	358	88.2
HIV Status (N=406)		
Positive	12	3.0
Negative	394	97.0

one form of abuse during childhood. Nearly one-fifth 76 (18.7%) of all the respondents had a history of physical abuse, and 41 (10.0%) reported experience of sexual abuse. A little above one-tenth 51 (12.6%) had ever coerced someone into having sex with them and about the same proportion of respondents (11.8%) had ever been coerced into having sex. Only 12 (3.0%) of all respondents reported they were HIV positive.

Table 3 shows the distribution of sexually experienced respondents by SRBs. Nearly two-third of 211 (64.9%) were sexually active in the preceding three months. Among the sexually active respondents in the preceding three months, 61 (28.9%) had a heavy intake of alcohol before sex, 46 (21.8%) engaged in sexual activity with sex workers, 81 (38.4%) had sex with casual friends, 92 (43.6%) had sex with someone other than their

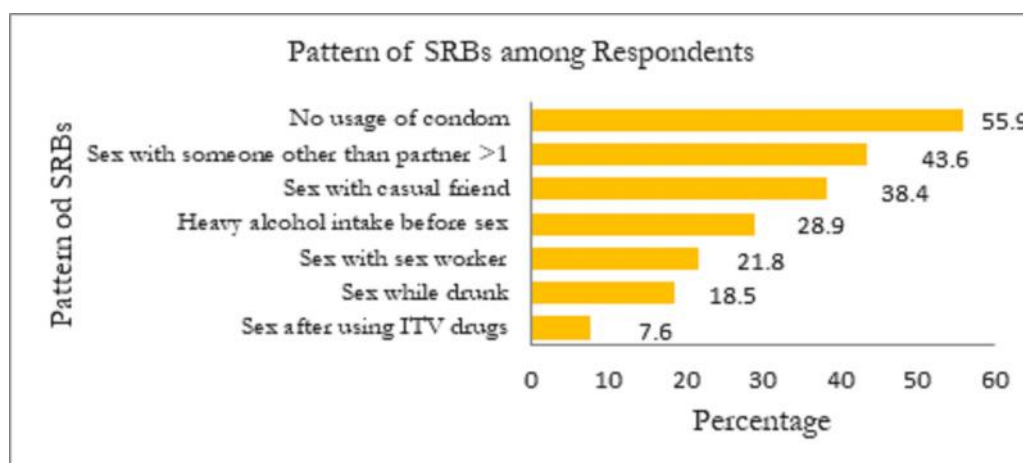


Figure 1: Pattern of SRBs among respondents

regular sexual partners more than once, 118 (55.9%) reported no usage of condom during sex, 16 (7.6%) had sex after using intravenous drugs and 39 (18.5%) had sex while drunk.

Figure 1 shows the pattern of SRBs among sexually active respondents in the preceding three (3) months in ascending order. Non-usage of condoms was the

highest occurring pattern, prevalent among 118 (55.9%) sexually active respondents, followed by sex with someone other than a regular sexual partner 92 (43.6%), sex with a casual friend 81 (38.4%), heavy intake of alcohol before sex 61 (28.9%), then sex with sex worker 46 (21.8%), sex while drunk 39 (18.5%) and preceding sex after intravenous drugs use 16 (7.6%).

Table 3: Distribution of sexually experienced respondents by SRBs

Variables	Frequency	Percentage
Sexually active in the preceding 3 months	(N=325)	
Yes	211	64.9
No	114	35.1
Heavy intake of alcohol before sex in the preceding 3 months (N= 211)		
Yes	61	28.9
No	150	71.1
Engaged in sexual activity with sex workers in the preceding 3 months (N= 211)		
Yes	46	21.8
No	165	78.2
Sex with a casual friend in the preceding 3 months (N= 211)		
Yes	81	38.4
No	130	61.6
Sex with someone other than a regular partner more than once in the preceding 3 months (N= 211)		
Yes	92	43.6
No	119	56.4
No usage of condom during sex in the preceding 3 months (N= 211)		
Yes	118	55.9
No	93	44.1
Sex after using Intravenous Drugs (ITV) drugs in the preceding 3 months (N= 211)		
Yes	16	7.6
No	195	92.4
Had sex while drunk in the preceding 3 months (N= 211)		
Yes	39	18.5
No	172	81.5

Table 4: Distribution of respondent by experience of CSBD (N=406)

Variables	Never n (%)	Rarely n (%)	Sometimes n (%)	Often n (%)	Always n (%)
Spent plenty of time thinking, planning or engaging in a sexual act in the preceding 12 months	192 (47.3)	58 (4.3)	98 (24.1)	36 (8.9)	22 (5.4)
Thinking, planning or engaging in a sexual act to cope with difficult feelings in the preceding 12 months	213 (52.5)	72 (17.7)	76 (18.7)	36 (8.9)	9 (2.2)
Thinking, planning or engaging in a sexual act to cope with stress or other responsibilities in the preceding 12 months	199 (49.0)	61 (15.0)	117 (28.8)	20 (4.9)	9 (2.2)
Failed to reduce or control how much I think about sex in the preceding 12 months	217 (53.4)	73 (18.0)	80 (19.7)	22 (5.4)	14 (3.4)
Engaging in sexual acts that could cause injuries or illness in the preceding 12 months	292 (71.9)	57 (14.0)	32 (7.9)	16 (3.9)	9 (2.2)
Frequent and deep thoughts about sex made me very upset about myself in the preceding 12 months	221 (54.4)	61 (15.0)	78 (19.2)	20 (4.9)	26 (6.4)
Frequent and deep thoughts about sex caused significant problems for me personally, socially or at work in the preceding 12 months	278 (68.5)	47 (11.6)	31 (7.6)	18 (4.4)	32 (7.9)

Table 4 below shows the distribution of respondents by the experience of CSBD. The overall prevalence of CSBD among all respondents was 6.4%. Above one quarter 117 (28.8%) sometimes and 29 (7.1%) most times think, plan, or engage in a sexual act to cope with stress or other responsibilities in the preceding 12 months. Almost one-fifth 80 (19.7%) sometimes and 36 (8.8%) most often found it difficult to reduce or control how much they think about sex in the preceding 12 months. About eight percent 31 (7.6%)

SRBs. SRBs were found to be statistically significant with gender and marital status at $p < 0.05$. More males 143 (67.8%) engaged in SRBs than 25 (11.9%) females. Of respondents who were not currently married or not living with a partner 85 (40.3%) engaged in SRBs compared to their counterparts who were currently married 83 (39.3%). There was no association between respondents' age group, level of education, income, years spent in service and ethnic group, and SRBs.

Table 5: Association between sociodemographic characteristics and SRBs

Variables	SRBs		χ^2	p-value
	No n (%)	Yes n (%)		
Age group				
≤ 20	1 (9.1)	10 (90.9)	11.662	0.020
21-30	15 (13.6)	95 (86.4)		
>30	27 (30.0)	63 (70.0)		
Gender				
Male	29 (16.9)	143 (83.1)	12.219	0.002*
Female	14 (35.9)	25 (64.1)		
Marital status				
Currently Married	33 (28.4)	83 (71.6)	12.428	0.002*
Not currently Married	10 (10.5)	85 (89.5)		
Level of education				
Basic Education	25 (18.5)	110 (81.5)	3.801	0.434
Tertiary	18 (23.7)	58 (76.3)		
Ethnicity				
Yoruba	13 (20.3)	51 (79.7)	11.974	0.063
Hausa	16 (27.6)	42 (72.4)		
Igbo	5 (15.2)	28 (84.8)		
Others	9 (16.1)	47 (83.9)		
Income (Naira)				
≤60,000	17 (18.5)	75 (81.5)	5.859	0.210
>60,000	22 (20.6)	85 (79.4)		
Number of years spent in service (years)				
<5	20 (37.7)	33 (62.2)	7.218	0.125
5-15	69 (47.3)	77 (52.7)		
>15	68 (54.0)	58 (46.0)		

*Statistically significant at $p < 0.05$

sometimes and 50 (12.3%) almost always had frequent and deep thoughts about sex to the extent of having significant problems with personal, social, or work life in the preceding 12 months.

Table 5 shows the association between the sociodemographic characteristics of respondents and

Table 6 shows the association between posting details and SRBs. There was no significant association between posting details and SRBs.

Table 7 shows the association between sociodemographic characteristics and experience of CSBD. There was no association between respondents' age group,

Table 6: Association between posting experience and SRBs

Variables	Frequencies	Percentages (%)	p-value
Local			
Yes	241	59.4	0.557
No	165	40.6	
International			
Yes	161	39.7	0.832
No	245	60.3	

*Statistically significant at $p < 0.05$

Table 7: Association between sociodemographic characteristics and experience of CSBD

Variables	CSBD		χ^2	p-value
	Yes n (%)	No n (%)		
Age group				
≤ 20	7 (11.7)	53 (88.3)	3.369	0.186
21-30	11 (5.1)	203 (94.9)		
>30	8 (6.1)	124 (93.9)		
Gender				
Male	22 (7.7)	265 (92.3)	2.600	0.107
Female	4 (3.4)	115 (96.6)		
Marital status				
Currently Married	7 (4.0)	169 (96.0)	3.052	0.081
Not currently Married	19 (8.3)	211 (91.7)		
Level of education				
Primary	2 (20.0)	8 (80.0)	3.862	0.145
Secondary	17 (6.9)	231 (93.1)		
Tertiary	7 (4.7)	141 (95.3)		
Ethnicity				
Yoruba	7(6.0)	109(94.0)	.149	0.985
Hausa	9(6.8)	123(93.2)		
Igbo	5(6.9)	67(93.1)		
Others	5(5.8)	81(94.2)		
Income (Naira)				
≤60,000	14 (6.4)	205 (93.6)	0.732	0.693
>60,000	10 (5.9)	159 (94.1)		
International posting				
Yes	14(5.7)	231(94.3)	.409	0.484
No	12(7.5)	149(92.5)		
Local posting				
Yes	15(9.1)	150(90.9)	3.348	0.067
No	11(4.6)	230(95.4)		

*Statistically significant at $p < 0.05$

gender, marital status, level of education, ethnicity, income, number of years spent in service, and posting details and CSBD at $p < 0.05$.

The factors that were identified to be significant at 10% and relevant based on the literature on bivariate analysis for SRBs were subjected to multivariate analysis; the result in Table 8 shows the contribution

Table 8: Predictors of SRBs among respondents

Variable	β -coefficient	Odd-ratio	95% CI	p-value
			(LCL-UCL)	
Age group (years)				
≤ 20 (ref)	1	1.000		
21-30	-0.029	0.972	(0.610-1.548)	0.903
>30	-0.286	0.752	(0.451-1.251)	0.272
Gender				
Male (ref)	1	1.000		
Female	-0.543	0.581	(0.448-0.753)	0.001*
Marital status				
Currently Married (ref)	1	1.000		
Not currently Married	0.273	1.313	(1.032-1.672)	0.027*
Ethnicity				
Yoruba (ref)	1	1.000		
Hausa	-0.166	0.907	(0.696-1.181)	0.469
Igbo	0.011	1.011	(0.734-1.392)	0.947
Others	0.098	0.847	(0.651-1.102)	0.216

of each of the explanatory variables on the outcome variable (SRBs). Female respondents are 0.543 less likely (OR= 0.581; 95% CI: 0.448 – 0.753; $p= 0.001$) to engage in SRBs compared to male respondents. Respondents who are not currently married or not living with a partner are more likely (OR= 1.313; 95% CI: 1.032 – 1.672; $p= 0.027$) to engage in SRBs compared to respondents who are currently married. Age group and ethnicity were confounding variables.

DISCUSSION

Previous literature has shown there has been a gradual increase in the trend of SRBs amongst MP as it directly impacts the risk of contracting and spreading sexually transmitted infections (STIs).^{16,25} This study equally found that SRBs was significantly high with a prevalence of 68% in men and 12% in women. However, compared to the most recent study that reported on the prevalence of SRBs amongst Immigration and correctional Officers²⁵, the prevalence amongst military personnel as indicated by this study is almost five times more; and this can be due to certain factors such as: frequent postings away from home for extended periods of time, and the possibility of casual sex.²⁴

CSBD, like SRBs, has been previously reported to be more common in men (12%) than in women (7%)²¹. Similarly, this study found that more males (7.7%) than females (3.4%) showed symptoms of CSBD. While sufficient evidence examining gender differences is lacking, a study reported that more men (13.8%) than women (4.3%) endorsed CSBD-related symptoms, although there was a limited proportion of women reporting CSBD.¹³ The prevalence of CSBD among the respondents was reported at 6.4%. This is higher compared to estimates in previous studies which reported 1% to 3% among the U.S. adult population, although a survey among a sample of male U.S. veterans showed a much higher estimate of 16.7%.^{8,11} Reasons for this inconsistent prevalence may include underreporting of CSBD due to its sensitivity and problematic nature of sexual behaviour.¹⁰

A 60.0% prevalence of multiple sexual risk behaviours (MSRBs) was found among sexually active respondents. Almost all the respondents who engaged in MSRBs were male. More than half 54.3% of the respondents who engaged in MSRBs were not currently married or not living with a partner. A study also described MP as a young population perceiving themselves as invulnerable and seen by women of the local population as privileged thereby associating with them and causing them to engage in multiple partnering, and unprotected sex among others¹⁹. Sex with someone other than a regular partner more than once (43.6%) and sex with a casual friend (38.4%) were the second

and third highest occurring, respectively, in the current study. Sex under the influence of alcohol and sex after drug use were among the patterns of SRBs reported in the current study, with the former occurring among 18.5% and the latter among 7.6% of respondents who were sexually active in the preceding three (3) months. SRBs were linked to alcohol abuse in a study²⁰. Compulsive Sexual Behaviour Disorder showed no significant association with age group, gender, marital status, level of education, ethnicity, income, number of years spent in service, and posting experience on bivariate analysis at $p<0.05$ in the current study, although some studies reported some associations, and have linked addiction to sexual compulsive behaviour.^{26,27} Results from multivariate analysis on the factors associated with SRBs identified gender and marital status as predictors, including MSRBs. Female respondents were less likely to engage in SRBs compared to their male counterparts. A study in the U.S. showed that male veterans have a lifetime prevalence of paid sex compared to non-veterans²². Respondents who were not currently married or not living with a partner were also more likely to engage in SRBs compared to those who were currently married. Being single has been identified as a predisposing factor to SRBs.¹⁷

Results from the multivariate analysis also reported that gender and marital status were predictors of MSRBs. Female respondents were less likely to engage in MSRBs compared to male respondents. Male veterans have been reported to have a lifetime prevalence of extramarital sex.²³ Also, respondents who are not currently married or not living with a partner are more likely to engage in MSRBs compared to their currently married counterparts.

Although other factors like age, level of education, income, and posting experience were not significantly associated with SRBs in the current study, some previous studies reported their association. A similar study revealed one-third of MP within the age group 18-34 years engaged in premarital/extramarital sex; equally evident was also the fact that a significant proportion of the respondents had secondary education (one-third) and those who were involved in foreign operations (nearly half) also engaged in pre/extramarital sex.¹⁸

Limitations

Military personnel were generally cautious of entertaining questions to avoid exposing details that might be regarded as indiscipline if learned by enforcement authorities in the military. The nature of the questions was similar to the PTSD Psych Test which soldiers undergo and are required to pass, therefore

they showed reluctance in responding to questions or participating in the study. These limitations were addressed by ensuring the confidentiality of information provided, explaining short-term and long-term beneficence, and providing material incentives.

This study also recorded low female participation due to the sensitive nature of the questions. Some highly religious personnel also felt the questions were intrusive. However, they were informed of their right to withdraw from participating at any point during data collection.

CONCLUSION AND RECOMMENDATIONS

The majority of the MP engaged in SRBs while less than one-tenth had CSBD. The common SRBs among respondents were non or inconsistent use of a condom, sex with someone other than a regular partner more than once, sex with a casual friend, heavy intake of alcohol before sex, sex with sex workers, sex while drunk, and sex after using intravenous drugs. Gender and marital status were predictors of SRBs.

Relevant stakeholders like health institutions should organize comprehensive, multilevel, multi-partner behavioural interventions that would take account of the social context in mounting individual-level programmes, modify social norms to support uptake and maintenance of behaviour change, tackle the structural factors that contribute to SRBs, and create an environment that promotes treatment and prevention for treatment-seeking individuals and society. The length of time MPs are required to spend during peace-keeping should be reviewed so that healthy sexual and marital relationships can be encouraged.

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Conflict of interest

There was no conflict of interest regarding this study.

Ethical approval and consent to participate

Written informed consent was obtained from all respondents and ethical approval was obtained from the Oyo State Research Ethical Review Committee, Ministry of Health Secretariat, Ibadan, Oyo state. Permission was sought from the Commanding Officer of the 81 Battalion, Mokola, Ibadan, and the General Officer Commanding of 2 Division, Nigeria Army, Odogbo cantonment, Ojoo, Ibadan.

Written Informed Consent

Informed consent was obtained from study participants. They were all important information about the study, its risks, and benefits. Their participation in this study was voluntary. A signed written informed consent form was given before the commencement of the study.

Confidentiality

Respondents were assured that all instruments used (i.e. questionnaires and database entries) were coded and would not bear their names, and also data collected was used for research purposes only and was kept on a password-protected computer. The name of the participants was not included in the questionnaire and also research assistant was trained to keep the information confidential. To improve the quality of data collected, anonymity and confidentiality of information obtained were ensured throughout the duration of the study.

Non-maleficence

This study was conducted without any physical harm to the participants. Participants were free of any cost in this study. However, the research sought pardon for minimal harm due to the time spared by participants.

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