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Original Research Article

The incidence, pattern and management of sexual assault in a tertiary hospital in North-western Nigeria

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ABSTRACT

Background: Sexual assault is any sexual act performed by one person on another without the person's consent or on a victim who is incapable of giving consent. It is a violation of basic human rights, a gender-based issue and a violent crime against both the individual and the society. The objectives of the study were to determine the incidence, pattern and management of sexual assault in Usmanu Danfodiyo University Teaching Hospital, Sokoto, Nigeria.
Methods: This was a 10 - year retrospective study. Case records of sexual assault from 1st January, 2007 to 31st December, 2016 were retrieved and relevant data extracted and analyzed using the SPSS for windows version 20.0
Results: The incidence of sexual assault was 0.8%. Majority, 88 (85.4%) occurred in children and adolescents. Peno-vaginal penetration was the most common form of assault 65 (63.1%) and the assailants were known to the victims in 74 (71.9%) of the cases. Involvement of psychiatrists/psychologists in the management of the victims was poor as psychiatrists were involved in only 13 (12.6%) of the cases. Most of the victims were lost to follow up.
Conclusions: Sexual assaults occurred mostly in children and adolescents in this study. Increased public awareness and preventive interventions are required especially among the at-risk age groups to enhance their safety. Training of relevant persons in the institution to offer counselling to the victims is recommended as referral for psychiatrists' consultation was poor. It is important to institute a good tracking system to follow up the victims as most are lost to follow up.

Keywords: Children and adolescents, Psychiatrists/psychologists, Sexual assault, Victims

INTRODUCTION

The term "sexual assault", "sexual abuse" and "sexual violence" are generally used synonymously.[1] According to the World Health Organization (WHO), sexual violence is defined as "any sexual act, attempt to obtain a sexual act, unwanted sexual comments or advances, or acts to traffic or otherwise directed against a person's sexuality using coercion, by any person regardless of their relationship to the victim, in any setting, including but not limited to home or work".[2] It is a violation of basic human rights, gender-based issue and a violent crime against the individual and the society.[1,3]

Sexual assault is a severely traumatic experience that disproportionately affects women and girls.[4] It is a pandemic crime that is characteristically under-reported worldwide. This is because of the enduring culture or male dominance, female social and economic disempowerment, poor or non-prosecution of sex offenders, arduous legal requirement needed to prove the cases and the associated stigma.[4]

According to WHO, one in every five women is a victim of sexual assault and globally, 35% of women experience either physical and/or sexual intimate partner violence or non-partner sexual violence.[5,6] In Nigeria, the prevalence of rape from facility–based studies vary from 2.1% in Osogbo to 5.6% in Jos of all gynaecological consultations.[7,8] A prevalence of 51.3% of sexual assaults was reported among female students in a tertiary institution in Maiduguri, Nigeria, while 3.0% of sexual violence was reported among women and children in Birnin Kudu by Ashimi AO et al. In Ile-Ife, sexual assault accounted for 0.69% of all female emergency admissions.[1,3,9]

Sexual assault include genital, oral or anal penetration by a part of the accused's body or by an object.[10] This may include rape, forced vaginal, anal or oral penetration, forced sexual intercourse, inappropriate touching, forced kissing, child sexual abuse or torture of the victim in a sexual manner.[3] Although peno-vaginal penetration or attempted penetration is the commonest form of sexual assault, penile penetration or attempted penetration of the anus or mouth without consent is increasingly being reported.[4]

The assailant usually ranges from a person close to the victim like a relative, neighbour, friend, school mate, teacher, caregiver, husband or guardian to a stranger.[3] It has been found that women are more likely to be raped by someone they know than by someone they do not know.[3]

Most of the sexual assaults occur in the residence of the victim, the assailant or another individual's residence; other prevalent locations are street, commercial building, and inside a school building or property.[3]

Sexual assault is a crime of violence that puts the victim at risk of physical injury, psychological disturbance, emotional disturbance, pregnancy and sexually transmitted diseases including human immunodeficiency virus (HIV) infection.[3,11] Somatic symptoms are common during the acute phases of the rape-trauma syndrome. These include musculoskeletal soreness, fatigue, tension headache, sleeping and eating disorders, intense startle reaction, vaginal irritation and bleeding.[12] Although the trauma of the assault heals with time, it leaves long term psychological and medical problems behind.[13] The psychological sequelae of sexual assault can be profound; approximately 50% of victims experience depression.[3]

The standard of clinical management of sexual violence involves documentation and treatment of injury, getting forensic materials, detecting prior pregnancy, screening for sexually transmitted infections including Human Immunodeficiency virus (HIV) and provision of adequate contraception, post-exposure prophylaxis (PEP) and supporting psychological counseling.[4]

As in most other developing countries, sexual assaults go mostly unreported in the subregion. Hence, the need for this audit. The objectives of the study therefore, are to determine the incidence, pattern of presentation and management of sexual assaults in Usmanu Danfodiyo University Teaching Hospital, Sokoto, North-West Nigeria.

METHODS

The study was conducted at the Usmanu Danfodiyo Teaching Hospital, Sokoto, North-west Nigeria. Usmanu Danfodiyo University Teaching Hospital is a tertiary hospital that renders preventive, promotive and curative services. It serves as a referral centre for Sokoto, Zamfara and Kebbi states as well as part of Niger Republic. It was a facility based descriptive retrospective study. All cases of sexual assault that presented to the hospital from January, 1st 2007 to December, 31st 2016 were reviewed. The numbers of the folders of cases of sexual assaults were obtained from the Health Records department of the hospital and the folders were subsequently retrieved manually. Relevant data was extracted from the folders using a designed proforma and analysed using the SPSS for windows version 20.0. Results are presented in percentages.

Inclusion criteria

All cases of sexual assault that presented to the study area within the review period were included.

Exclusion criteria

All other causes of assault were excluded from the study.

RESULTS

A total of 14,904 patients were seen in the Gynaecological out-patient and emergency clinics over the review period with 119 of them being cases of sexual assault. This gave an incidence of 0.8%. 0f the 119 cases 103 case-folders were retrieved for analysis giving a retrieval rate of 86.6%.

Socio-demographic characteristics of the victims

The mean age of the victims was 11.6±7.95 years while the age range was 2-37 years. The most commonly assaulted age group was age <10 years involving 47 (45.6%). All the victims were female and 92 (89.3%) of them were single. Most of the victims, 70 (68.0%), were of Hausa/Fulani ethnicity and 72 (69.9%) of the victims were Muslims. Primary school pupils were the most commonly assaulted victims 35(34.0%) (Table 1).

Profile of assailants

All the assailants were male and majority of them were known to the victims ranging from neighbours 46

(44.7%), friends 10 (9.7%), acquaintances 10 (9.7%) and family members 8 (7.8%). Only one assailant was involved in 89 (86.4%) of the cases. Only 41 (39.8%) assailants were arrested.

Table 1: Socio-demographic characteristics of the victims.

Characteristic	Frequency	Percentage
Age		
< 10	47	45.6
10 – 19	41	39.8
20 – 29	9	8.8
≥30	6	5.8
Sex		
Female	103	100
Male	0	0
Educational status		
Pre-school	15	14.6
No formal education	29	28.1
Primary	35	34.0
Secondary	15	14.6
Tertiary	9	8.7
Occupation		
Under care	27	26.2
Primary school pupil	32	31.1
Secondary school student	17	16.5
Tertiary student	6	5.8
NYSC member	1	1.0
Not indicated	20	19.4
Marital status		
Single	92	89.3
Married	8	7.8
Divorced	3	2.9
Tribe		
Hausa/Fulani	70	68.0
Igbo	12	11.6
Yoruba	8	7.8
Others	13	12.6
Religion		
Islam	72	69.9
Christianity	31	20.1

Only 20 (19.4%) and 15 (14.5%) of the assailants were screened for HIV and hepatitis B virus respectively. Two of the assailants were reactive to hepatitis B virus while all were non-reactive to HIV (Table 2).

Pattern of assaults

The most common location of sexual assault was in the assailants' house in 48 (46.6%) of the cases.

The victims were subdued by use of force in 38 (36.9%) of the cases. Weapons were used in 18 (17.5%) of the cases and the most commonly used weapon was knife/cutlass. Peno-vaginal intercourse was the most common assault reported in 65 (63.1%) cases (Table 3).

Table 2: Profile of assailants.

Profile	Frequency	Percentage
Identity		
Neighbour	46	44.7
Stranger	24	23.3
Friend	10	9.7
Acquaintance	10	9.7
Family member/Relation	8	7.8
Armed robber	3	2.9
Not documented	2	1.9
Age of assailant(s)		
<15	5	4.9
15 - 24	10	9.7
25 - 34	13	12.6
≥35	4	3.9
Not documented/unknown	71	68.9
Sex		
Male	103	100
Female	0	0.0
Occupation		
Commercial driver	2	1.9
Motor cyclist (Okada)	4	3.9
Trader	8	7.8
Farmer	6	5.8
Civil servant	5	4.9
Student	9	8.7
House help	2	1.9
Artisan	8	7.8
Thug	4	3.9
Security guard	5	4.9
Armed robber	3	2.9
Not documented/unknown	47	45.6
Number of assailant(s)		
One	89	86.4
Two	13	12.6
Six	1	1.0
Arrest of assailant(s)		
Yes	41	39.8
No	62	60.2
HIV Status		
Reactive	0	0.0
Non-reactive	20	19.4
Not known/not done	83	80.6
Hepatitis B Status		
Reactive	2	1.9
Non-reactive	13	12.6
Not known/not done	88	85.5

Pattern of presentation

The most common time of presentation was 6-12 hours after the assault in 28 (271%) of cases. In 56 (54.4%) of

the cases, the victims were brought to the hospital by their parents/caregivers/relatives. In 60 (58.3%) of cases, the assault was reported to the police before presentation. Many, 48 (46.6%) of the victims bathed before presentation. The most common presenting symptoms was vaginal bleeding in 34 (33%) victims (Table 4).

Table 3: Pattern of assaults.

Pattern	Frequency	Percentage
Place of assault		
Assailant's house	48	46.6
Victim's house	10	9.7
School/classroom	4	3.9
Uncompleted building	15	14.6
Roadside	5	4.9
Bush/farm	13	12.6
Toilet	5	4.9
Not documented	3	2.9
Method used to subdue victim		
Verbal threat	13	12.6
Use of force	38	36.9
Verbal threat and use of force	5	4.9
Enticement and use of force	1	1
Enticement only	18	17.5
Deception	25	24.5
Use of sedative	1	1
Not documented	2	2
Use of weapon		
Yes	18	17.5
No	85	82.5
Weapon(s) used		
Knife/matchet	8	44.4
Gun	2	11.2
Club/stick	4	22.2
Stone	4	22.2
Type of sexual assault		
Fondling	13	12.6
Peno-vaginal penetration only	65	63.1
Peno-oral	1	1.0
Peno-vaginal and peno-oral	2	1.9
Insertion of fingers into the vagina	15	14.6
Fondling and peno-vaginal penetration	3	2.9
Fondling, peno-vaginal and insertion of fingers into vagina	4	3.9

Investigations performed for victims

Most, 67 (65%) of the victims were screened for HIV and all were non-reactive. Three of the victims had a positive pregnancy test at the time of assault. Only 40 (38.8%) of the victims were screened for hepatitis B virus. Vaginal aspirate for microscopy was positive for spermatozoa in 6 victims. Grouping and cross-matching of blood was requested in only 2 victims (Table 5).

Table 4: Pattern of presentation.

	Frequency	Percentage
Interval before presentation (hours)		
< 6	25	24.3
6-12	28	27.2
13-24	30	29.1
25-36	3	2.9
37-48	4	3.9
> 48	13	12.6
Brought to hospital by		
Self	6	5.8
Parents/caregivers/relations	56	54.4
Law enforcement agents	3	2.9
Parents and law enforcement agents	30	29.1
School authority	6	5.8
Not documented	2	2.0
Actions taken prior to presentation		
Bathing	48	46.6
Douching	44	42.7
Changed/washed clothing	42	40.8
Reported to the Police	60	58.3
Mode of presentation		
Vaginal bleeding	34	33.0
Vaginal discharge	21	20.4
Vaginal laceration	16	15.5
Perineal lacerations/bruises	8	7.8
Urinary symptoms	7	6.8
Lower abdominal pain	16	15.5
Musculoskeletal injury	13	12.6

Treatment received by the victims

Prophylactic antibiotics for sexually transmitted infections was received by 84 (81.6%) of the victims and it was the most common treatment received. Few, 15 (14.6%) patients had examination under anaesthesia while 13 (12.6%) victims had repair of laceration. The psychiatrists were involved in only 13 (12.6%) of the cases while only 17 (16.5%) victims came for at least one follow-up visit (Table 6).

Involvement of law enforcement agents and arrest of assailants

The law enforcement agents were involved in 66 (64.1%) of the cases. The parents reported 50 (75.8%) of the cases to the law enforcement agents but only 41 (39.8%) of the assailants were arrested (Table 7).

DISCUSSION

The prevalence of sexual assault in this study is 0.8%. This is comparable to 0.69% from Ile-Ife (Ife), 0.76% in

Lagos but less than 2.1%, 2.2%, 3%, 5.6%, 7.7% and 13.8% reported in Osogbo, Calabar, Birnin Kudu, Jos, Benin-City and Maiduguri respectively.[1,7,8,11,14,15] The low incidence of sexual assault in this study may be a 'tip of iceberg' of what is obtains in the community as sexual assault is not uncommon in Nigeria but few of the cases are usually reported.

Table 5: Investigations performed for victims.

Investigation	Frequency	Percentage
HIV screening		
Reactive	0	0.0
Non-reactive	67	65.0
Not done	36	35.0
Hepatitis B screening		
Reactive	0	0.0
Non-reactive	40	38.8
Not done	63	62.2
Pregnancy test		
Positive	3	2.9
Negative	20	19.4
Not done	80	77.7
Vaginal aspirate for microscopy		
Positive for spermatozoa	6	5.8
Negative for spermatozoa	33	32.0
Not done	64	62.2
Grouping and cross matching of blood		
Done	2	1.9
Not done	101	98.1
Ultrasonography		
Done	2	1.9
Not done	102	98.1

Table 6: Treatment received by the victims.

Treatment	Frequency	Percentage
STI antibiotic prophylaxis	84	81.6
HIV PEP	47	45.6
Emergency contraception	23	22.3
EUA	15	14.6
Repair of laceration	13	12.6
Involvement of Psychiatrist	13	12.6
Follow up	17	16.5

Majority, 47 (45.6%) of the victims in this study were in the age group of less than 10 years of age followed by age range of 10-19 years of age which constituted 39.8% of the victims. This is in agreement with other studies where disproportional numbers of sexual assault victims are children and adolescents.[1,4,9,16,17]

Table 7: Involvement of law enforcement agents and arrest of assailants.

	Frequency	Percentage
Involvement of law enforcement agents		
Yes	66	64.1
No	37	35.9
Law enforcement agents involved by (n=66)		
Parents/caregivers/relations	50	75.8
Victims	14	21.1
Others	12	3.1
Arrest of assailants		
Yes	41	39.8
No	62	60.2

All the victims of sexual assault in this study were females. This differs from reports from Zaria and Lagos in Nigeria, India, Uganda and South Africa where male victims were reported.[16-21]

Most of the victims, (89.3%) in the study were not married. This is in tandem with other studies from different parts of the country.[1,9,16,17]

There was scanty information about the assailants however the assailants were known to the victims in 71.9 % of the cases and they ranged from neighbors, friends, acquaintances to family members/relatives; and all were male. This agrees with findings in previous surveys.[1,4,9,22] One assailant was involved in 86.4% of the cases with one occurrence of gang rape involving 6 assailants. This was comparable to other studies in which one assailant was involved in the majority of the cases.[1,9,16,17] The assailants were arrested only in 39.8% of the cases. This is comparable to 33.8% arrest of assailants reported in Ile-Ife.[9] Out of the arrested assailants; only 19.4% and 14.5% were screened for retroviral disease and hepatitis respectively.

Many, 46.6% of the assaults took place in the assailant's house. This is similar to findings from Birnin Kudu, Ile-Ife, Port-Harcout and Lagos where most of the assaults occurred in the assailants' houses.[1,9,16,22]

Use of force was the most common method applied in subduing the victims in 36.9% of the cases. This differs from use of verbal threats in majority of cases reported in Birnin Kudu, Ile-Ife and Lagos.[1,9,16] Weapons were employed in only 17.5% of the cases and the most commonly used weapon was knife/matchet. This is different from the finding in Ile-Ife where the most commonly used weapon was firearms.[9]

The most common form of assault in this study was peno-vaginal intercourse alone in 63.1%. This is similar to the finding in Ile-Ife but differs from the finding in Port-Harcourt in which fondling/grabbing of sensitive body parts was the highest form of sexual assault experienced by the victims.[9,22]

Most of the victims (51.4%) presented to the hospital within 12 hours of the assault. This is comparable to the findings in Osogbo and Ile-Ife in which majority of the victims presented within 24 hours of the assault but different from that of other studies in which the majority of the victims presented after 24 hours to greater than 72 hours.[7,9,1,8,16,17]

The most common presenting symptom in the study was vaginal bleeding (33.0%) while 15.5% had vaginal laceration. This is not surprising as the majority of the cases of assault in this study occurred in children and for obvious anatomical reasons, children are more likely to suffer genital trauma.

Only 65% of the victims were screened for Human Immunodeficiency Virus (HIV) in this review. This is higher than 45.5% reported in Birnin Kudu but less than 72.3% and 84.5%, 95% reported in Lagos, Ile-Ife and Zaria respectively.[1,9,16,17] Similarly, only 38.8% were screened for Hepatitis B virus in the study. This was also higher than 10.0% reported in Birnin Kudu but less than 33.8% reported from Ife and 50.5% from Lagos.[1,4,9] These investigations (RVS and HBV among others) were requested in all the patients at presentation but most could not be done in most cases due to financial constraints as patients pay for out-of-pocket for services in our institution.

The most common form of treatment received by victims in this study was antibiotic prophylaxis against sexually transmitted infection in 81.6% of the cases. This was similar to findings in Zaria and Ile-Ife.[9,17] Only 45.6% of the victims received post-exposure prophylaxis for HIV in this research. This was higher than 25.5% reported in Lagos but less than 52.1% in Ile-Ife, 90.3% in another study from Lagos.[4,9,16]

Emergency contraception was received by only 22.3% of the victims. This was in keeping with other studies where emergency contraception to prevent post-rape pregnancy was consistently low but contrary to the finding in Lagos where 95.0% of the victims received emergency contraception.[4,9,16,23]

The low rate of administration of emergency contraception in this study may not be unconnected to the fact that majority of the victims in this study were pre-pubertal girls.

Psychiatrists were involved in the management of just 12.6% of the victims. This was in keeping with the findings from others studies in which the involvement of psychiatrists/psychologists was poor.[16, 17]

Majority of the victims in this study were lost to follow up as only 16.5% of the victims had at least one follow-up visit. This is different from the finding in Lagos where about 75% came for follow-up but similar to others studies in which majority of the victims were lost to follow up.[1,9,16,17] The dismal follow-up performance may not be unconnected with the stigma usually attached to sexual assault victims in general.

CONCLUSION

Sexual assault is a violation of basic human rights. The incidence may be low in this study but it reaffirms that sexual assault is a major adolescent reproductive health problem and uncovers the stark reality of child sexual abuse in Sokoto as found in other studies. Assailants are known in most cases and neighbours constituted the majority of the assailants.

All parents, therefore, need to be mindful of this risk when leaving their children alone with anyone. Increased public awareness and preventive interventions are required especially among the at-risk age group to enhance their safety.

Recommendations

Compulsory screening of assailants for sexual transmitted infections is recommended as less than 50% of the assailants were screened for HIV and hepatitis B virus in this study. Similarly, treatment of sexual assaults in the hospital should be made free or subsidized to enable most victims receive the required treatment which may be hindered by financial constraints. Involvement of the psychiatrists and follow up was poor in this study. Training of relevant persons in the institution to offer counselling to the victims is recommended. It is also important to institute a good tracking system to follow up these victims to determine the success of the treatment, to provide emotional and psychological supports as well as treat long term sequalae arising from the assaults.

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