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■ Original Research Article

Sexual Assaults: Pattern and Medical Care in Minna, North Central Nigeria

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Abstract

Background: Sexual assault is both a public health and a human rights issue. Globally, it is an indicator for most severe threat to human security. **Aim/Objectives:** To determine the pattern of sexual assault and medical care among survivors at a secondary health facility in Nigeria. **Study design and setting:** A descriptive study on the care of the victims of sexual assault at RAYUWA Sexual Assault Centre (SARC), Nigerian Police Medical Services, Minna, Niger State. **Methods:** A designed proforma was used to extract data from case files of victims of sexual assault managed between January 2016 and December 2019. Descriptive frequency statistics and percentages were used for analysis. **Results:** The study revealed that adolescents accounted for most cases (65.6%). Assault through the vaginal route was the commonest (83.6%). The assailants were known to the victims in majority of cases (69.4%). Male victims of rape constituted 8.6%. Bruises (39.3%) of the ano-genital skin constituted the commonest form of physical injuries. About 2.2% of the victims were seropositive for HIV while 24.6% of eligible victims received Post Exposure Prophylaxis (PEP). Unwanted pregnancy occurred in 5.5% of cases. **Conclusions:** Sexual assault is common in our setting. Males are increasingly being affected but female victims are still the majority. The medical care given is inadequate; so, the need to improve care.

Keywords: Pattern, Sexual, Assault, Victims.

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INTRODUCTION

According to World Health Organization (WHO), sexual assault is "any sexual act, unwanted sexual comments or advances directed against a person`s sexuality using coercion, by any person regardless of their relationship to the victim, in any setting".[1,2] It is a public health and a human rights issue, and an indicator of most severe breach of human security in the World. It may involve genital, oral or anal penetration by any part of the body of the assailant or by an object. It is categorized as: marital, acquaintance, incest and date rape or legally in terms of age as statutory rape and child sexual abuse.[3,4] The assailant could range from persons known to the victim like a friend, neighbor, relative, school mate, caregiver, teacher, husband or guardian to a stranger.[5] Evidence has shown that women are more likely to be raped by their acquaintances, and the first sexual experience of girls is sometimes unwanted and forced.[5,6] On the other hand, men could be victims of sexual assault in some circumstances.

The scope of sexual assault is well documented in developed countries where diverse management options are available. However, in sub-Saharan Africa, information about sexual assault is shrouded in secrecy, probably out of fear of being ostracized by society or loss of family integrity; or is strictly regarded as taboo.[6] These factors negatively affect the actual prevalence of sexual assault because

of gross under-reporting, even though, it has been reported as the fastest growing crime in many parts of the World.[2] Sexual assault is not peculiar to any race or socio-economic class. According to WHO, one in every five women is a victim of sexual assault.[7] Globally, about 300,000 women are raped and 3.7 million are confronted with unwanted sexual activity annually.[5] Perhaps the reported prevalence is a tip of the ice berg of the actual magnitude of the problem; because of its clandestine nature. In the United States, 18.3% of women and 1.4% of men reported experiencing rape at some time in their lives.[4] In sub-Sahara Africa, the prevalence varies from 14.3% among university students in Ethiopia; 16% in Democratic Republic of Congo to 24.9% of young men reported having raped a female previously in South Africa.[4] In Nigeria, only 2 out of 40 cases of rape are reported, which can be attributed to the arduous legal requirements needed to prove the case and associated stigma, among other reasons.[8] While, relatively low prevalence of sexual assault was seen in most institutional based studies ranging from 0.76% in Lagos[7] to 5.3% in Kano[1], a very high prevalence of sexual assault was reported in community based studies ranging from 46.7% among female undergraduates in Port Harcourt[2] to 51.3% female students of a tertiary institution in Maiduguri.[5]

Young age, drug abuse, poverty, multiple sexual partners, alcohol consumption, previous experience of rape, emotional instability and poor education are some of the risk factors to sexual assault. [2,9] Sexual assault may involve use of objects, forcible rape, forcible fondling and forcible sodomy.

Both physical and psychological morbidities associated with sexual assault cannot be over emphasized. Up to 40% of victims sustain injuries as a result of physical force such as multiple bruises in: genital area, non-genital areas and anal region.[4,5] Survivors of rape are at risk of unwanted pregnancy, unsafe abortion and its adverse consequences, chronic pelvic pain, dyspareunia and risk of Sexually Transmitted Infections (STIs) including Human Immunodeficiency Virus (HIV). In adolescents, the vaginal mucous membrane is yet to acquire significant cellular density to provide effective barrier making them more susceptible to HIV transmission.[7] Although the trauma of sexual assault heals with time; it leaves long term psychological and medical damage behind.[4] Shame, anger, guilt, low self-esteem and shock may be exhibited as immediate psychological reactions; while long term psychological outcome include depression, fear, lack of sexual enjoyment, post-traumatic stress disorder and suicidal tendencies.[7]

Standard clinical management of victims of sexual assault includes treatment of injuries, screening for STIs, obtaining forensic material, general counselling, and provision of social support.[6] Appropriate post-exposure prophylaxis and provision of emergency contraception for women of reproductive age group. The components of the clinical evaluation act as a vital link between health care and the judicial system.[10]

Although available data showed that sexual assault is common among women, there is dearth of statistics in our locality. This study is aimed at investigating the pattern of sexual violence and medical care among survivors of sexual assault in Minna, North-Central Nigeria. The findings may further bring the issue to public attention with the overall goal of reducing the problem of sexual assault in our environment.

METHODS

This was a retrospective study. Data extracted from medical record of victims of sexual assault cases seen at RAYUWA Sexual Assault Referral Centre (SARC), Nigerian Police Medical Services (NPMS) Minna, North-central Nigeria, between January 2016 and December 2019. The NPMS Minna is a 15 bedded facility that provides both primary and secondary health care needs to the neighborhood communities. The NPMS Minna has RAYUWA SARC unit that provides medical care to victims of sexual assault, counselling, psycho-social support and prepares medical report to aid conviction of suspects by Woman and Child Protection (WCP); and Criminal Intelligence and Investigation Department (CIID) officers. The NPMS has a visiting consultant and five medical officers who oversee the activities at RAYUWA SARC. It also has counsellors that provide the counselling needs of victims of sexual assault and their psycho-social support. RAYUWA SARC is a unit under NPMS Minna, therefore, record keeping system is the same. The case files of survivors of sexual assault were reviewed. A designed proforma was used to extract information on the victims' bio data, time of assault, number of assailant(s), relationship of the assailant to the survivor, route of sexual assault, weapon(s) used and nature of injury to the victim. Other information include treatment offered and assailant`s arrest by the law enforcement agents. Exclusion criteria were cases of inadequate information and un-retrieval case note. Primary outcome measure was the rate of sexual assault, while the secondary outcome measures were the pattern of sexual assault and type of medical care received.

The names of victims of sexual assault and police officers were kept confidential. This was achieved by allocating an anonymous identification

number to each casefile of sexual assault during data capture and analysis.
Data cleansing was done and analyzed using IBM SPSS version 22 statistical software package. Descriptive frequency statistics and percentages were used for the analysis.

RESULTS

All cases retrieved were analyzed. A total of 6,980 female outpatients were seen between January 2016 and December 2019 at the NPMS Minna; out of which 183 were cases of sexual assault, giving a rate of 2.6%.

Table 1: Socio-demographic Profile of Assaulted Victims

Variable	Frequency	%
Age group (yrs)		
0 – 9	51	27.9
10 – 19	120	65.6
20 – 29	10	5.5
30 – 39	2	1.1
≥ 40	0	0
Education level		
Nursery	5	2.7
Primary	39	21.3
Secondary	37	20.2
Tertiary	3	1.6
None	95	51.9
Informal	4	2.2
Occupation		
Preschool	12	6.6
Student	83	45.4
Apprenticeship	4	2.2
Domestic servant	27	14.8
Unemployed	5	2.7
Hawker	50	27.7
Trader	2	1.1
Professional	0	0
Marital status		
Single	179	97.8
Married	3	1.6
Widowed	1	0.5
Divorced	0	0
Sex		
Male	16	8.6
Female	167	91.4
Religion		
Islam	135	73.8
Christianity	48	26.2

The age ranged from 2 to 33 years with a mean of 12.0±5.3 years. Adolescents (age group 10-19) accounted for the majority (65.6%) of the cases, followed by children less than 10 years (27.9%), making the entire under 19 age group to be 93.5% of all victims. A larger proportion of victims (51.9%) had no form of education while over one-fifth of victims (21.3%) were primary school pupils. Many of the sexually assaulted victims were students (45.4%) and unmarried (97.8%). Female victims constituted 91.4% of cases and over three-quarter of

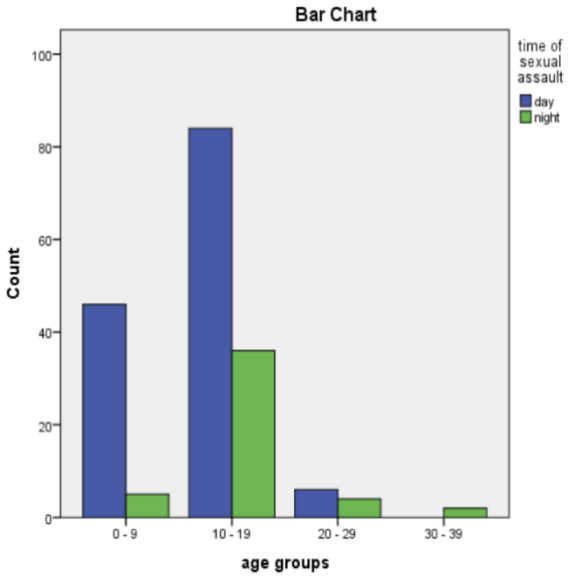

Figure 1: Age and time of sexual assault

Table 2: Pattern of Sexual Assault

Variable	Frequency	%
Route of sexual assault		
Vagina	153	83.6
Anal	22	12
Oral	1	0.5
Others	7	3.8
Extent of sexual assault		
Penetrative	135	73.8
Nonpenetrative	48	26.2
Place of sexual assault		
Assailant's home	100	54.6
Victim's home	16	8.7
Uncompleted buildings	16	8.7
Others	51	27.9
Is the assailant(s) known to the victim?		
Yes	127	69.4
No	56	30.6
Is the assailant(s) a family member?		
Yes	12	6.6
No	171	93.4
Number of assailants		
Single	160	87.4
Gang rape	23	12.6
Threat of violence		
Yes	81	44.3
No	102	55.7
Physical force		
Yes	139	76.0
No	44	24.0
Use of drugs		
Yes	6	3.3
No	176	96.2
Ano-genital injuries		
Bruises	72	39.3
Lacerations	14	7.7
Others	23	12.6
None	74	40.4

the survivors of sexual assault belong to Muslim faith (73.8%). Cases of sodomy accounted for 8.6% in this study (Table 1).

Over 80% of victims raped during the day were less than 20 years (Fig. 1). Majority of the assault occurred through the vaginal route (83.6%), while penile penetration took place in 73.8% of the assaulted victims. The place of assault in most cases were the assailant's home (54.6%). The assailants were known to the victims in majority of cases (69.4%), while incest occurred in 6.6% of cases. The

number of assailants ranged from one to six per case. In most cases only one assailant was involved in

Table 3: Medical Interventions

Variable	Frequency	%
Pregnancy test		
Positive	10	5.5
Negative	67	36.6
Not done	106	57.9
HIV test		
Positive	4	2.2
Negative	121	66.1
Not done	58	31.7
HbsAg test		
Positive	9	4.9
Negative	94	51.4
Not done	80	43.7
Surgical repair of lacerations		
Yes	8	4.4
No	175	95.6
Provision of PEP		
Yes	**45**	**24.6**
No	**138**	**75.4**
Provision of emergency contraception		
Yes	**43**	**23.5**
No	**140**	**76.5**
Cases under police investigation		
Yes	130	71.0
No	53	29.0

the assault (87.4%). The method of overcoming the victim ranged from threat of violence (44.3%), physical force (76.0%) and use of drugs (3.3%). Bruises (39.3%) of the ano-genital skin constituted the commonest form of physical injuries sustained by the victims, followed by lacerations (7.7%) (Table 2).

Post assault conception occurred in 5.5% of cases and all of them presented within 4 to 5 months after the assault. Of all the survivors of sexual assault, 125 (68.3%), 103(56.3%) had undergone screening for HIV and HbsAg respectively. The test results were positive at the time of evaluation for HIV and HbsAg in 2.2% and 4.9% respectively. Surgical repair of laceration was carried out in 4.4% of the survivors of sexual assault while 2.7% of them received blood transfusion. Post Exposure Prophylaxis (PEP) for HIV was given in 24.6% of those eligible and provision of emergency contraception in 23.5% of eligible post-menarcheal victims. Prophylactic antibiotic against other STIs (gonococcus and chlamydia) was given in 45.9% of victims. There was neither referral for psychotherapy nor forensic specimen collected. There was no follow up record seen in all the case notes. Concerning legal measures taken against assailants, 130(71.0%) were under police investigation (Table 3).

DISCUSSION

The rate of sexual assault from this series is 2.6%, which is similar to other hospital-based studies in Nigeria namely Birnin Kudu (2.3%),[1] Osogbo (2.1%)[11] and Calabar (2.2%)[12] . It is also comparable to 2% reported from India [13]. The observed rate in this study is lower than estimated 35% of sexual assault reported worldwide.[7] These hospital-based reports are much lower than 51.3%[5] reported for community-based study in Maiduguri, Nigeria, which may provide a fairly true representation of the menace of the condition and underscores the magnitude of the problem in the community. The lower rates from this study and other hospital-based studies revealed under reporting of cases of sexual assault because of stigmatization associated with it in our environment. The high prevalence seen in Britain and many industrialized countries is due to their egalitarian culture while the low prevalence observed in India and other developing countries is as a result of sexual assault myth acceptance and benevolent sexism.[13] World Health Organization (WHO) reported in 2013 that Africa, Middle East and Asia have the highest rates of physical and sexual violence towards women.[14]

There is difficulty in comparing prevalence of sexual assault across studies / countries due to differences in denominators. Therefore, there is need to adopt a consensus denominator. The sexual assault prevention activities by government and non-governmental organizations directed towards prevention of domestic violence should be intensified and sustained. Furthermore, specific programs targeting the stigmatization of victims of sexual assault making them not to report for treatment should be developed.

The findings of high percentage of sexual assault victims amongst persons in their second decade of life is in keeping with previous studies in Nigeria.[1,4,7,8] The period of adolescent is characterized by adventures and youthful exuberant exposing them to behaviors that might increase the risk of sexual assault. Similar to other studies,[1,4,8] most of the assaults were perpetrated by persons known to the victims, occurring during the day and in assailant's home. Adolescents are unlikely to be allowed to step out of the house in the night, hence the lower rate of assault during the night. Adolescents and teenagers should be admonished on the inherent dangers in total trust of persons known to them especially when such close acquittances invite them to their homes without third party. The high rate of acquittance sexual assault in our setting may also account for the low level of reporting and prosecution of assailants, because of the tendency to settle out of court to preserve family respect and maintain friendship.

The upper age margin for the survivors in this study is 33 years, which is contrary to 23, 25 and 50 years reported in Calabar, Benin and Lagos respectively.[7] An Indian study reported a similar age range of 3 to 42 years.[15] This disparity in the upper age margin of victims may be due to under reporting to police and health care providers by the older

survivors who may fear being blamed and loss of societal respect, which may be society dependent.

Majority of sexual violence are directed against females and most report focus on that gender group. However, prevention strategies need to be directed to males too, as we found that males were victims of sexual assault in 8.6% of our series. While most reports on sexual assault didn't include male victims, Ezechi from Lagos support our findings that males are also victims of sexual assault (6.1%).[8] Sexual assault prevention programs should begin to address factors that precipitate abuse of males especially boys, while intensifying effort to address sexual assault issues among females. Majority of the sexual abuse on males was through the anal route, pointing to the fact that perpetrators are men that have sex with men. The society often doesn't expect males to be sexually assaulted, hence parents/guardians leave their wards in the care of potential assailants who soon take advantage of them. Public enlightenment programs against sexual violence should also include those young boys who may be at risk.

Similar to the findings by Akinlusi et al,[7] majority of the assault occurred through the vaginal route. In contrast, Ezechi in Lagos[8] reported anal assault to be the commonest pattern of sexual abuse in their series. About 23.5% of eligible post-menarcheal victims received emergency contraception. However, 5.5% of cases of post assault unwanted pregnancy was seen in this series. All the pregnant victims presented seeking for termination of pregnancy after 4 to 5 months of sexual assault. They were all teenage pregnancies.

Physical force was mainly used to overcome the victims, in which majority sustained bruises of anogenital region. This contrasts with the findings from Sokoto[4] where laceration was commonest. Surgical repair of laceration was carried out in 4.4% of the victims while 2.7% of them received blood transfusion.

Victims of sexual assault are vulnerable to a few sexual and reproductive health problems, particularly unwanted pregnancy, HIV infection and other STIs. About two-third (68.8%) of survivors had base-line HIV test, out of which 2.2% was positive. The proportion of cases screened for HIV was higher than 22% HIV test reported by Tapesana et al,[16] though we expect all victims to have HIV screening test. There were no data for second HIV test in this study as there were no follow up records and also no proper counselling sessions documented. Counselling and follow-up in sexual abuse victims has been shown to be sub-optimal in several studies.[16,1718,19] This may be alluded to the investigating police officer`s priority to have medical affidavit signed for court proceedings and once the form is completed the victim is likely to leave the hospital without the full package of care as required. This made it difficult to assess the success of sexual assault management in this study. It is therefore pertinent to counsel victims on the need for follow up for emotional and psychological support in addition to determination of treatment success. The low rate of PEP (24.6%) for HIV provided to those eligible may be due to delayed presentation for health care by victims following sexual assault. However, they were insufficient data to consider time to presentation in this study.

Prophylactic antibiotic was given in 45.9% of victims which is higher than the 33% reported from Zimbabwe.[16] Ideally, prophylactic antibiotic should be given to all survivors of sexual assaults who present with or without symptoms of STIs as long as there is evidence of penetration.[16] This is to prevent the development of STI and its sequelae. Despite overwhelming evidence of penile penetration (73.8%), none of the victims were offered endocervical swab microscopy. Endocervical swab microscopy is essential for guiding antibiotic therapy in victims with vaginal discharge. Majority of the assailants (71.0%) were under police investigation; probably related to the fact that the RAYUWA SARC is situated in NPMS. This is higher than the cases arrested by the police in Sokoto.[4]

Although our study has contributed to the body of knowledge on the pattern of sexual assault in our setting it is challenged by being institutionally based and a retrospective study design. This study generated important findings that are not available in our setting ranging from the pattern of sexual assault and extent of medical care provided to the victims, to involvement of male victims. This may serve as a basis for carrying out a community-based study in future. Information obtained will feed into sexual assault prevention programs in our setting and elsewhere.

CONCLUSION

Sexual assault is common in our setting and male are increasingly being affected but female victims are still the majority. Adolescents constituted most of the victims with persons known to them being the perpetrators in most cases. The medical care given is inadequate; so, the need to improve care. There is need to have forensic investigation and follow up of the victims.

It is recommended that there is need to scale up services for management of survivors, integrating other services like psychosocial services and providing forensic services for adequate prosecution of perpetrators. Special program targeting young

women and men on how to prevent behaviors that put them at risk of sexual violence should be introduced in schools. Establishment of special courts to handle rape cases, thereby improving the justice system will go a long way in serving as deterrent to potential rapist.

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