

# Analysis of cases of rape as seen at the Jos University Teaching Hospital, Jos, north central Nigeria

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## Abstract

**Objective:** Women are at a higher risk of being sexually harassed. There is a need to document the clinical findings of this crime and its outcome in order to improve the quality of care the victims receive.

**Materials and Methods:** Case notes of patients who presented with alleged rape at Jos University Teaching Hospital between January 2001 and December 2003 were retrieved and analyzed.

**Results:** During the study period, 2,135 patients were seen in the Gynaecological Emergency Unit. A total of 120 were for alleged rape, representing 5.6% of the total cases seen. However, only 105 case notes were available for analysis. Of these, 63.8% of the alleged rapes were in children, with the infantile age group accounting for 26.7%. 36.2% of the victims had experienced some form of sexual exposure prior to the rape. A previous relationship with the rapist was established in 77.4% of the cases. Most cases delayed in presenting to hospital. Thirty six percent of the cases did not have a human immunodeficiency virus screening test done. *Candida albicans* (13.3%) accounted for most of the infectious agents. Emergency contraception was administered to the victims when indicated.

**Conclusion:** Women under 16 years of age were at an increased risk of being raped, possibly because they are defenseless and vulnerable. Three quarters (3/4) of the assailants had some form of relationship with the victims, which may account for the delays in reporting. Children and young adolescents were more at risk than adults to be raped.

**Key words:** Assailants, victims, children, Jos University Teaching Hospital, rape

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## Introduction

The abhorrence of sexual offence is deep rooted and appears to be enshrined in culture and religion. In some parts of the world, it attracts death by stoning; in the old Jewish law, such people were ostracized from the society.

Rape is defined as the unlawful sexual intercourse with a woman without her consent by force, fear or fraud.<sup>[1]</sup>

Carnal knowledge has now been replaced in the definition with sexual intercourse, the word "man" now includes all those aged 14 years or over and the word "woman" meaning a female of any age.<sup>[1]</sup>

Rape is punishable under Section 357 of the Criminal Code,<sup>[2]</sup> providing for a sentence of life imprisonment with or without whipping. A boy of 14 years and above can be convicted of rape, but a 12-year-old is considered incapable of sexual intercourse.<sup>[2]</sup> A man cannot rape his wife as consent to marriage presumes consent to sexual intercourse, unless they are legally separated. The female victim can be anybody, including prostitutes. A charge of rape can be brought up after any length of time.

Any medical doctor can be called upon to offer professional

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advice in medico-legal cases involving rape. These cases may later result in court action, and such may be required to give evidence in court.<sup>[2]</sup> Hence, a clear understanding of the legal and medical aspects of sexual offences is essential.

Young people, especially females, are observed to be particularly vulnerable to sexual coercion (rape) and violence. Sometimes, this coercion clearly involves the use of force; at other times, it is more subtle and involves economic or psychological manipulation.<sup>[3]</sup> Sexual offences can be divided into two groups, i.e. those in the domain of psychiatrist (masochism, indecent exposure, etc.) and those that are criminal in nature, e.g. rape, buggery, incest, bestiality and indecent assault.<sup>[2,4]</sup> Defilement, which means sexual intercourse with underaged girls (i.e., girls below 16 years), is usually by a close relation or by someone they know and rarely by a total stranger.<sup>[6]</sup>

From population-based studies, more than 683,000 adult women are raped annually in the United States.<sup>[5]</sup> Epidemiological data show that more than half of the cases occur before the age of 18 years. Thirty-two percent of all rape cases occur among girls between the ages of 11 and 17 years. Fifteen percent of the university women in the United States of America (USA) have experienced a sexual assault and 34–60% have faced unwanted sexual contact.<sup>[6,7]</sup> In England and Wales, rape is commonly under-reported, with an estimated life time risk of up to one in four for women.<sup>[8]</sup> In Africa, 5–15% of the females report a forced or coerced sexual experience. The incidence is 20% among secondary school students in Lima, Cusco and Iquitos and Peru and 41% among young females attending urban night study centers in Lima and Peru. In the Philippines, 6% of the unwed mothers reported that pregnancy resulted from rape. In Dar-es-salaam, United Republic of Tanzania, 28% of the young women suffering post-abortion complications was impregnated by rape.<sup>[3]</sup>

Several studies have showed perpetrators of rape to be authority figures, work place supervisors, older male teachers, policemen, priests and relatives.<sup>[2,3,9-14]</sup>

Sexual activities involving a child may include activities intended for sexual stimulation, such as those involved in contact sexual abuse, penetrating injury or non-penetrating injury. It must also be noted that a charge of rape can be made without any of the above features. The child's account or a witness account is the most important determinant for rape.<sup>[15]</sup> Physical indicators may be present, such as bruises on the skin, abrasions to wrist and ankle, bruises to genital areas and rectal abnormalities. Hymenal abnormalities may be present from chronic abuse or acute injury.<sup>[16-18]</sup> Most morbidity associated with sexual abuse is emotional and psychological trauma. Sexually transmitted diseases (STDs) may also result in further morbidity. Prevalence of STD varies with geographical location and child's age. In the

prepubertal age, they tend to be below 4%; in adolescent, about 14%.<sup>[19]</sup>

In adults, the risk of acquiring an STD as a result of rape is not known because it is difficult to ascertain whether the infection was present before the assault or acquired during the act.<sup>[20]</sup> Because of the prevalence of human immunodeficiency virus (HIV) transmission, victims of rape are been offered HIV prophylaxis.<sup>[21,22]</sup>

Establishment of physical findings could be performed by visual examination, colposcopically aided examinations and forensic methods.<sup>[23-26]</sup>

Pregnancy following rape is known to occur.<sup>[3,8,9,12,14,15]</sup> The risk of pregnancy and views on contraception must therefore be explored. Emergency contraception using progesterone-only contraceptive pills up to 72 h after exposure or intrauterine device containing copper, which can be inserted up to 5 days after the earliest expected date of ovulation or up to 5 days after sexual assault, protects against unwanted pregnancy.<sup>[10,11,27]</sup>

Over the years, there have been a few changes such as type of rape and management of victims. The last study that was performed here was over a decade ago.<sup>[9]</sup>

The aims/objectives of this retrospective study are to document the perpetrators of rape and the outcome of such abuse in order to improve the quality of care they receive at the Jos University Teaching Hospital.

## Materials and Methods

All victims of alleged rape who presented to Jos University Teaching Hospital during the period of study of January 2001 to December 2003 were reviewed.

The information from the case notes was transcribed onto a proforma already designed for this purpose. The information gathered was analyzed using Epi Info 2002 Statistical software.

The victims were grouped into four age groups based on degree of sexual development.

The four age groups identified were:

1. Infantile (below 7 years)
2. Prepuberty (7–11 years)
3. Peripuberty (12–16 years)
4. Adolescent (over 16 years)

These age categories were based on the pattern of sexual development in young Nigerian females.<sup>[28]</sup>

**Table 1: Age distribution of victims of alleged rape**

| Age (years) | Number of victims | %    |
|-------------|-------------------|------|
| 1–6         | 28                | 26.7 |
| 7–11        | 17                | 16.2 |
| 12–16       | 22                | 21.0 |
| >16         | 38                | 36.2 |
| Total       | 105               | 100  |

**Table 3: Venue of the sexual assault**

| Location         | Number | %    |
|------------------|--------|------|
| Victims home     | 49     | 46.6 |
| Male's apartment | 29     | 25.7 |
| Bush/foot path   | 11     | 12.4 |
| Party            | 11     | 10.5 |
| Car              | 4      | 3.8  |
| School           | 1      | 1    |
| Total            | 105    | 100  |

**Table 5: Physical findings in the alleged rape victims**

| Nature of injury          | Age in years |      |       |     |
|---------------------------|--------------|------|-------|-----|
|                           | 1–6          | 7–11 | 12–16 | >16 |
| Body abrasion and bruises | 3            | 0    | 3     | 8   |
| Vaginal bruises/bleeds    | 6            | 1    | 6     | 7   |
| Perineal tear             | 7            | 2    | 3     | 4   |
| Torn hymen                | 3            | 6    | 4     | 5   |
| Vaginal discharge         | 5            | 5    | 2     | 3   |
| No abnormality            | 4            | 3    | 4     | 11  |

**Table 7: Time interval between alleged rape and reporting to the hospital**

| Interval (hours) | Total | %    |
|------------------|-------|------|
| >48              | 43    | 41.3 |
| 25–48            | 10    | 9.6  |
| 13–24            | 18    | 17.3 |
| 7–12             | 7     | 6.7  |
| 0–6              | 26    | 25   |

## Results

The total number of patients seen in the Gynaecological Emergency Unit during the study period was 2,135; of these, 120 cases were for alleged rape, representing 5.6% of the total cases. One hundred and five case notes were available for analysis out of the 120 cases (85% retrieval rate) of alleged rape that presented. The ages of the victims ranged from 1 to 24 years, with a mean of  $12.0 \pm 4.4$  (mean  $\pm$  SD) years [Table 1]. About 36.2% (38) had previous sexual exposure. The number of males involved ranged from 1 to 6. The use of emergency contraception was documented in 28 victims' case notes. The rapists were well known to the victims, as depicted in Table 2. These were either neighbors

**Table 2: Relationship between the victims of sexual assault and the alleged perpetrators**

| Relationship | Number | %    |
|--------------|--------|------|
| Neighbor     | 24     | 22.9 |
| Friend       | 17     | 16.2 |
| Armed robber | 14     | 13.3 |
| Uncle        | 11     | 10.5 |
| Co-tenant    | 12     | 10.5 |
| Stranger     | 8      | 9.3  |
| Step brother | 9      | 8.6  |
| Step father  | 6      | 4.8  |
| Boy friend   | 3      | 2.9  |
| Grand father | 1      | 1.0  |

**Table 4: Method of overcoming victim's resistance during rape**

| Method        | Number | %    |
|---------------|--------|------|
| Force/gagging | 30     | 28.6 |
| Unspecified   | 24     | 22.9 |
| Threat        | 20     | 19.0 |
| Alcohol/drugs | 18     | 17.1 |
| Weapon        | 12     | 12.4 |
| Total         | 105    | 100  |

**Table 6: Results of the high vaginal swab (HVS) test in victims of alleged rape**

| High vaginal swabs          | Total | %    |
|-----------------------------|-------|------|
| Dead sperms cells           | 24    | 22.0 |
| Numerous pus/epith. cells   | 22    | 21.0 |
| <i>Candida albicans</i>     | 14    | 13.3 |
| <i>Neisseria gonorrhoea</i> | 4     | 3.6  |
| <i>Klebsiella</i> spp       | 1     | 1.0  |
| Not done                    | 40    | 39.1 |
| Total                       | 105   | 100  |

or friends of the family. The victims' homes accounted for 46.6% of the venue of the alleged rape [Table 3]. Table 4 shows that force/gagging and some threat were used to overcome the victims' resistance before they were raped. There were many forms of bodily harm seen on the victims<sup>[29]</sup> [Table 5].

A high vaginal swab (HVS) test showed spermatozoa in 43% of the cases [Table 6]. Most (51.9%) of the victims presented in hospital after 24 h of the alleged rape [Table 7].

## Discussion

Girls under the age of 16 years appear to be at greatest risk of being sexually assaulted, accounting for 63.8% of the total cases of rape seen in our study. The infantile age group accounted for 20.7%; this is higher than the 18.1% reported in a previous study carried out at this center.<sup>[9]</sup> There does

not appear to be a plausible explanation for this trend. It may however be so because these children are defenseless, weak and therefore easy victims.

About 38% of the victims had experienced some form of sexual exposure prior to the reported rape incident. Two infant patients had been similarly assaulted earlier on by the culprits.

About 77.4% of the victims knew the assailants, which correlates with findings from other studies.<sup>[3,4,7,9,11]</sup> These include relations, co-tenants, friends or those living in the same neighborhood. A majority of the assault cases occurred at the victim's home (46.6%); this could be attributed to the close relationship with assailants who were co-tenants, family members or friends. Among the young adolescents and peripubertal victims, the number of male assailants ranged from one to six. In four cases, the victims were not sure of the number of assailants due to effects of alcohol/drugs that was used to overcome resistance. Weapons, alcohol and gagging were common forms of restraint applied especially among the older age groups.

The time interval between alleged rape and hospital examination of the victim varied widely, from about 4 h to about 1 month after the incident. As in earlier studies,<sup>[3,9,10,16,17]</sup> cases involving younger girls who are easily threatened or pacified to keep quiet report late when compared with older girls. This is usually suspected by the parent when they stumble on foul-smelling vaginal discharge, difficulty in walking, etc. from their wards or children.

Although about 28.6% of the patients claimed resistance was met by force from the assailants, only in a few of them could abrasions and bruises be identified. This may be attributed to late presentation of patients, although in quite a number of the victims, evidence of coitus (e.g., torn hymen) could be documented.

About 39.1% of the cases seen did not have the HVS test done; this could be due to financial constrains as similar observations were made in other studies.<sup>[4,9]</sup> Infectious agents identified, especially *Nisseria gonorrhoea* (3.6%), was not comparable with an earlier study that quoted up to 6%<sup>9</sup>. In about 80 cases, nothing was grown, which may be due to poor collection and transportation techniques of the samples. The method of sample collection and transportation to the laboratory needs to be reviewed if sexually transmitted microorganisms are to be cultured.

In all victims of reproductive age who were sexually assaulted around the mid-cycle, emergency contraception (Postinor II) was administered.<sup>[9]</sup>

The management of rape is based on the principles of

preventing pregnancy, treatment of complications, the administration of prophylactic antibiotics as well as psychological rehabilitation. These principles were not strictly followed in this review. This might be because of the absence of a structured management protocol for these victims. It is therefore recommended that in order to improve on the quality of care received by the rape victims, there is the need to have a management protocol, which should include measures that would prevent pregnancy and infection (HIV inclusive) as well as psychological support, which appeared to be absent in this review.

In addition, there is the need to sensitize the public on the emerging trend of infants being potential victims of this crime.

## Conclusion

Ideally, all victims of reproductive age who are sexually assaulted around the mid-cycle should have emergency contraception administered.<sup>[9]</sup> This was however not performed in all cases in this study. There is therefore the need to institutionalize emergency contraception for all victims of rape who are within the reproductive age. This will prevent unwanted pregnancy.

Similarly, victims of rape should be offered prophylaxis against HIV. This was not documented in the case notes at the time of this study. This should be standard practice now because of the HIV pandemic so as to curb the spread of HIV/acquired immunodeficiency syndrome.

Despite the fact that reduction of all forms of gender-based violence and other practices that are harmful to the health of women and children forms part of the specific objectives of the National Reproductive Health Policy, rape against children and adolescents is still high in our society, as seen from this study.

## References

1. Assaults on Females: Abduction, rape. Section 357- 359: Criminal Code Act CAP.77 Laws of the Federation. 3244-3249.
2. Umerah BC, Esege N. Sexual offences. In: Umerah BC, editor. Medical Practice and the Law in Nigeria: Longman Owerri; 1989. P. 55-67.
3. Brown A, Shireen JJ, Iqbal S, and Shyam T. Sexual Relation among young people in developing countries evidence from WHO case studies Occasional paper. World Health Organization 2001:1-51.
4. Rafindadi AH. Sexual Offense Hand Book of Forensic Medicine. Zaria: Amana Publishers; 2003. P. 71-8.
5. Holmes MM. The Clinical Management of Rape in Adolescents. Cont Obst Gynaec 1998;3:1-16.
6. Koss MP, Gidycz CA, Wisniewski N. The scope of rape: incidence and prevalence of sexual aggression and victimization in a national sample of higher education students. J Consult Clin Psychol 1987;55:162-70.
7. Ward S K, Chapman K, Cohn E White S, Williams K. Acquaintance Rape and the College Social Scene. Fam Relations 1991;40:65-71.
8. Wilken J, Welch J. Management of people who have been raped. BMJ 2003;326:458-9.

9. Uguru VE. Problems Encountered in Management of Victims of Alleged Rape in Jos, Nigeria. *J Obstet Gynaecol East Cent Africa* 1991;9:44-8.
10. Riggs N, Houry D, Long G, Markovchick V, Feldhaus KM. Analysis of 1,076 cases of sexual assault. *Ann Emerg Med* 2000;35:358-62.
11. Sadler AG, Booth BM, Nielson D, Doebbeling BN. Health-related consequences of physical and sexual violence: women in the military. *Obstet Gynecol* 2000;96:473-80.
12. Peschers UM, Du Mont J, Jundt K, Pfürtner M, Dugan E, Kindermann G. Prevalence of sexual abuse among women seeking gynecologic care in Germany. *Obstet Gynecol* 2003;101:103-8.
13. Cloutier S, Martin SL, Poole C. Sexual assault among North Carolina women: prevalence and health risk factors. *J Epidemiol Community Health* 2002;56:265-71.
14. Hampton HL. Care of the woman who has been raped. *N Engl J Med* 1995;332:234-7.
15. Solola A, Scott C, Severs H, Howell J. Rape: management in a noninstitutional setting. *Obstet Gynecol* 1983;61:373-81.
16. Bays J, Chewning M, Keltner L, Sewell R, Steinberg M, Thomas P. Changes in Hymenal anatomy during examination of prepubertal girls for possible sexual abuse. *J pediatr adolesc Gynaecol* 1990;3:42-6.
17. Adams JA, Harper K, Knudson S, Revilla J. Examination findings in legally confirmed child sexual abuse: it's normal to be normal. *Pediatrics* 1994;94:310-7.
18. Berenson AB, Chacko MR, Wiemann CM, Mishaw CO, Friedrich WN, Grady JJ. A case-control study of anatomic changes resulting from sexual abuse. *Am J Obstet Gynecol* 2000;182:820-31.
19. Christian CW, Lavelle JM, De Jong AR, Loisele J, Brenner L, Joffe M. Forensic evidence findings in prepubertal victims of sexual assault. *Pediatrics* 2000;106:100-1004.
20. Jenny C, Hooton TM, Bowers A, Copass MK, Krieger JN, Hillier SL, *et al.* Sexually Transmitted Diseases in victims of rape. *N Engl J Med* 1990;372:713-6.
21. Wiebe ER, Comay JE, and McGregor M, Ducceschis A. Offering HIV prophylaxis to people who have been sexually assaulted: 16 months experience in sexual assault service. *CMAJ* 2000;162:641-5.
22. Limb S, Kawsar M, Forster GE. HIV Post Exposure Prophylaxis after Sexual Assault: The experience of a sexual assault service in London. *Int J Sex Transm Dis Aids* 2002; 13:602-605.
23. Slaughter L, Brown CR. Colposcopy to establish physical findings in rape victims. *Am J Obst Gynaecol* 1992;166:83-6.
24. Chakraborty R, Kocid KK. The utility of DNA typing in forensic work. *Science* 1991;254:1736-9.
25. Grave HC, Sensubaugh GF, and Blake ET. Post coital detection of a male specific semen protein: application to the investigation of rape. *N Engl J Med* 1985;312:338-43.
26. Muram D, Elias S. Child sexual abuse – genital tract findings in prepubertal girls. Comparison of colposcopic and unaided examination. *Am J Obst Gynaecol* 1989;160:333-5.
27. Roger D. Assisting and advising complaints of sexual assault in the family planning setting. *J Fam Plann Reprod Health Care* 2002;28:127-31.
28. Fakeye O. Age and Physical measurements at menarche in school girls at Ilorin. *Med Practitioner* 1984;4:121-9.
29. Woodling BA, Evans JR, Bradbury MD. Sexual assault: Rape and molestation. *Clin Obstet Gynecol* 1977;20:509-17.

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