CLINICAL MANAGEMENT OF RAPE IN YAOUNDÉ-CAMEROON: A DESCRIPTIVE STUDY

Fouedjio JH[1,2], Mboua-Batoum V[1], Ekese-Litumbe JE[1], Ebong C[1,2], Mbu RE[1,3], Mekdes D[4].

ABSTRACT

BACKGROUND: Sexual assault is a global health and legal challenge. Nowadays it does not only affect women and girls, but also men and boys of all ages. Management of rape cases is dependent on the lesions and the trauma sustained by the survivors. In Cameroon, a protocol has been developed by the state to improve on the care of sexual assault survivors. There is therefore a need to evaluate the clinical management of rape in Yaoundé.

MATERIALS AND METHODS: This was a prospective descriptive study carried out over a period of 8 months among participants of all age groups visiting 3 referral hospitals in Yaoundé. A questionnaire was used to collect data of participants from medical records and the data collected was entered and analyzed using SPSS version 23.0.

RESULTS: During the study period, 127 cases of rape were recorded. The socio-demographic profile of survivors were mainly females (99.2%), with a mean age of 13 ± 10 years with the 10 to 15 age range being the most represented (25.2%). Vaginal penetration was common in most cases (85%). Sixty-one percent of survivors consulted at the hospital within 72 hours. The vaginal injuries were observed in the majority of survivors (42.5%) on clinical assessment. HIV serology and Hepatitis B were requested in 90.5% and 80.3% of cases respectively. Antibiotic was prescribed for 44.9% of survivors. Prevention of HIV infection by prescribing anti-retroviral was effective in 54% of cases. After the clinical examination, 33.9% of the victims had received emergency contraception. Psychological care was provided to the majority of the victims (85%).

CONCLUSION: Sexual assault remains a prominent fact of our society mainly affecting children. Preventing assault involves raising public awareness. The clinical management of survivors of rape needs to be improved on following the standard protocol provided by the government.

KEYWORDS – Sexual assault, Rape, Survivors, Management

(The Ethiopian Journal of Reproductive Health; 2021; 13;11-19)

1 Department of Obstetrics and Gynecology, Unviversity of Yaoundé I-Cameroon

2Yaounde Central Hospital

3 Yaounde Obstetrics-Gynaecology and Pediatrics Hospital

4 St. Paul Hospital Millennium Medical College-Ethiopia

INTRODUCTION

Sexual assault is a global health and legal challenge and has been a neglected area of research. Rape is a form of sexual assault, a public health problem and a human right violation [1]. The World Health Organisation (WHO) defines rape as physically forced or otherwise coerced 'penetration – even if slight – of the vulva or anus, using a penis, other body parts or an object [2]. Rape in war is internationally recognized as a war crime and a crime against humanity, but is also characterized as a form of torture and, in certain circumstances, as genocide [1].

Available data suggest that in some countries nearly one in four women may experience sexual assault by an intimate partner [3]. It is estimated that approximately 35% of women have experienced some form of sexual harassment in their lifetime [4]. Cameroon is not left out as to what concerns this dilemma. A report by Demographic and Health Survey, with Multiple Indicators (EDS-MICS) Cameroon in 2011 showed that the prevalence of sexual violence amongst females of any age in Cameroon is about 8%. [5]. Research carried out by Menick et al in Cameroon on child abuse among school children found that 38.7% of sexual assault cases involved rape [5]. Several authors who worked on sexual assault research in Cameroon worked on child sexual abuse and they found out that majority of these children had hymeneal and perineal tears [6]. In 2014, Foumane et al. evaluated the clinical aspects of sexual assault and reported that majority of the survivors came to consult for sexual assault, occurring mostly at night at the survivors or rapists home, mostly being physical trauma and the lesions were mostly vaginal [7, 8].

Management of rape cases is dependent on the lesions and the trauma sustained by the survivors.

Nonetheless, no matter the treatment received, rape has adverse physical, psycho-social consequences and also devastating effects on the lives of the survivors with long-term consequences on their health and mental wellbeing. It is associated with an increased risk of a range of sexual and reproductive health problems, with both immediate and long-term consequences [8].

Its impact on mental health can be as serious as its physical impact, and may be equally long lasting [9]. Sexual assault can also profoundly affect the social wellbeing of survivors; individuals may be stigmatized and ostracized by their families and others as a consequence [8,10].

METHOD AND MATERIALS

Research Design

This study was a descriptive prospective study.

Research Sites

This study was carried out in three [3] referral hospitals in Yaoundé, Cameroon. These hospitals are the Yaoundé Central Hospital (YCH), the Yaoundé Gyneco-Obstetric and Pediatric Hospital (YGOPH) and the Yaoundé Emergency Center.

Study Duration

This study was carried out within a period of 8 months (November 2019 to June 2020 inclusive).

Study Population

The study population consisted of all patients received at the outpatient and emergency units of the three referral hospitals for sexual assault and who gave their consent or consent by their guidance.

Inclusion criteria

We included in our study participants of all age groups received at the outpatient and emergency units of all our recruitment sites for sexual assault and who gave their consent or their guardian's consent.

Exclusion criteria

We excluded:

- Survivors of sexual assault who were not rape cases;
- People who suffered from psychological trauma after consenting intercourse.

Sampling

A consecutive and non-exhaustive sampling was done

Sample Size

Using the Lorentz formula, our sample size was 127.

Data collection

Data collection was done at the consultation areas and for survivors who had been received for rape. A questionnaire was established and the data of participants were collected after consultation with the attending physician.

All eligible participants or their guardians were required to personally sign and date the latest approved version of an informed consent form before any study specific activities were undertaken. Written and verbal versions of the participant information and informed consent were presented to the participants detailing no less than: the exact nature of the study; what it involved for the participant; the implications and constraints of the protocol; any risks involved in taking part. It was clearly stated that the participant was free to withdraw from the study at any time for any reason without prejudice to future care, and with no obligation to give the reason for withdrawal.

The participants were allowed as much time as they wished to consider the information, and the opportunity to question the investigator, or other independent parties to decide whether they would participate in the study. Written informed consent/ assent was then obtained by means of participant dated signature and dated signature of the chief investigator. A copy of the signed informed consent was given to the participant. The original signed form was retained at the study site.

Data Analysis and Presentation

Data entry template was created in Epi-data version 3.1. Data was later transferred to and analyzed using Statistical package for social sciences version 23.0 in a password-protected computer. The results were then presented in the form of tables and figures using Excel 2013 software.

RESULTS

During the study period, 127 cases of rape were recorded with majority of the cases from the Yaoundé Gyneco-Obstetric and Pediatric Hospital (Figure 1).

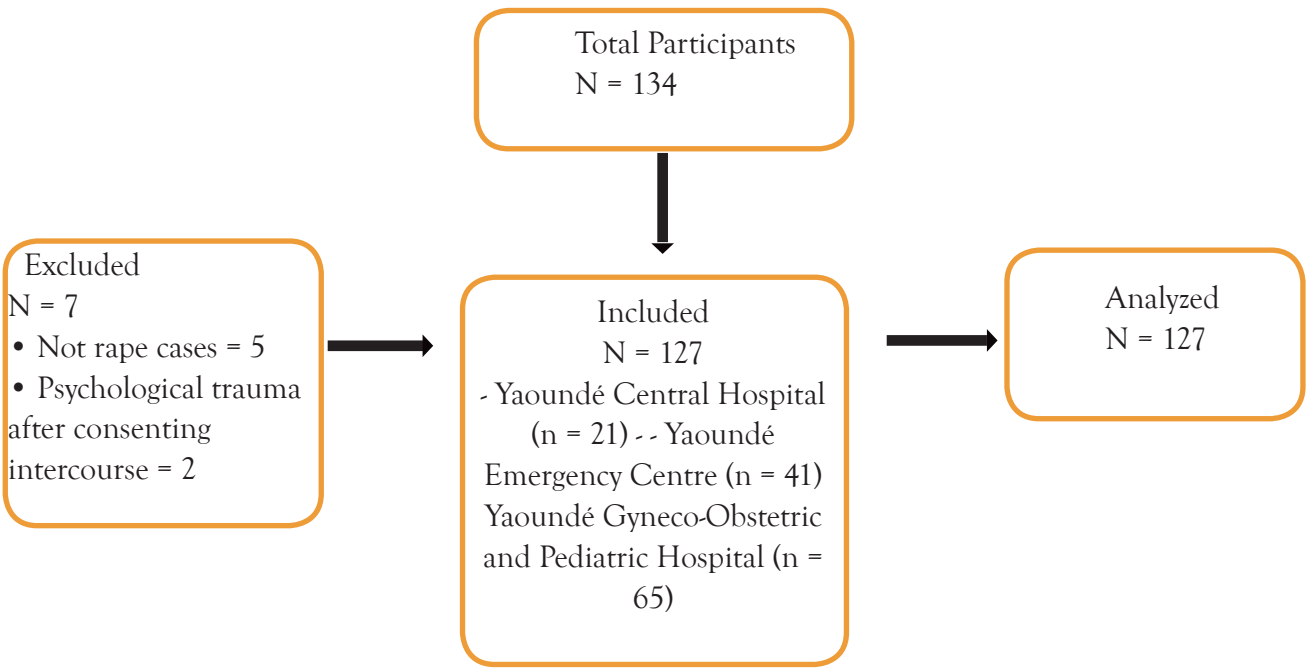

Figure 1: Flow chart for recruitment of participants

1. Socio-demographic characteristics of study population

The majority of the survivors in the study population were females. The 10 -15 age group was the most represented. Students were the most represented among survivors of rape (Table1).

Table 1: Socio-demographic characteristics of the study population based on gender, age and profession (N = 127)

Variable	Frequency (n)	Percentage (%)
Gender		
Male	01	0.8
Female	126	99.2
Age		
[1-5[	15	11.8
[5-10[	25	19.7
[10-15[	32	25.2
[15-20[	18	14.2
[20-25[	14	11.0
[25-30[	13	10.2
[30-35[	5	3.9
[35-40[	2	1.6
[40-45[	1	0.8
[45-50[	2	1.6
Profession		
Student	82	64.6
Pupil	16	12.6
Public sector worker	12	9.4
Private sector worker	17	13.4

2. Clinical characteristics of the assault

2.1. Type of Penetration

Vaginal penetration was the major form of penetration among the survivors (Table 2)

Table 2: Distribution of study population according to type of Penetration (N = 127)

Type of Penetration	Frequency (n)	Percentage (%)
Vaginal	108	85.0
Anal	10	7.9
Vaginal-anal	8	6.3
Vaginal-oral	1	0.8

2.2. Time to Consultation

A little over half of the survivors had come for consultation within the first 72 hours following the assault (Figure 2).

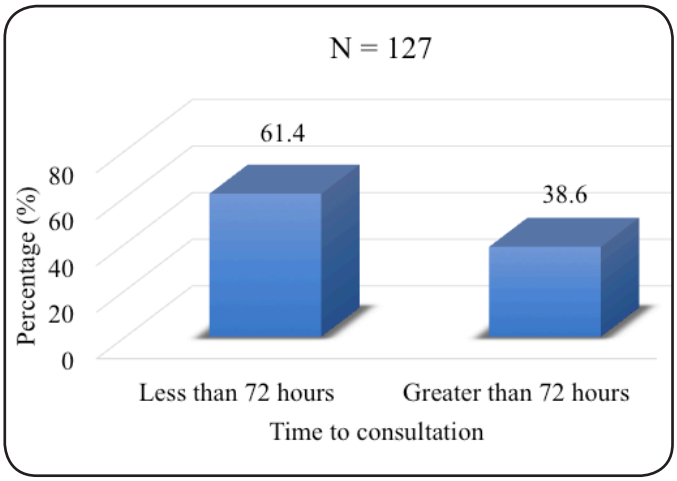

Figure 2: Distribution of study population according to time to consultation

2.3. Location of injury

The vaginal injuries were observed in the majority of survivors (Figure 3)

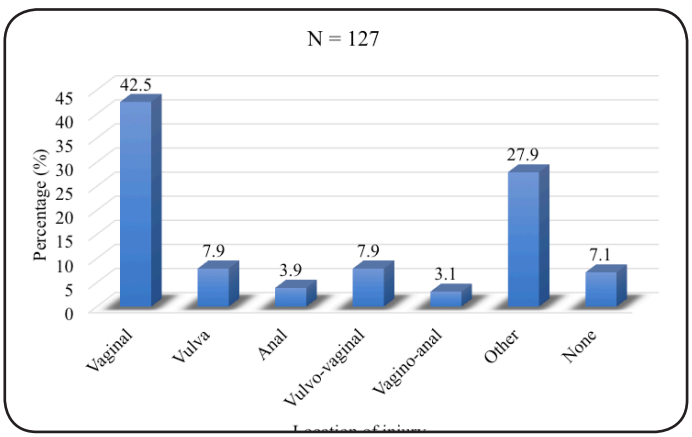

Figure 3: Distribution of study population according to location of injury

3. Management of survivors of sexual abuse

3.1. Paraclinical aspects

The HIV sample was collected in 90.5% of cases. Hepatitis B was collected in 80.3% of cases. A little over half of the survivors were prescribed Syphilis test. Vaginal smear and Chlamydia sample were collected in less than half of the cases. Pregnancy test was carried out in a little over half of the survivors (table 3)

Table 3: Distribution of study population according to Paraclinical samples collected (N = 127)

Variable	CURYn (%)	YCHn (%)	YGOPHn (%)	Totaln (%)
HIV sample collected				
Yes	36 (87.8)	21 (100)	58 (89.2)	115 (90.5)
No	5 (12.2)	0 (0)	7 (10.8)	12 (9.5)
Hepatitis B sample collected				
Yes	34 (82.9)	21 (100)	47 (72.3)	102 (80.3)
No	7 (17.1)	0 (0)	18 (27.7)	25 (19.7)
Syphilis sample collected				
Yes	20 (48.8)	13 (61.9)	32 (49.2)	65 (51.2)
No	21 (51.2)	8 (38.1)	33 (50.8)	62 (48.8)
Vaginal smear sample collected				
Yes	19 (46.3)	12 (57.1)	31 (47.7)	62 (48.8)
No	22 (53.7)	9 (42.9)	34 (52.3)	65 (51.2)
Chlamydia sample collected				
Yes	19 (46.3)	12 (57.1)	31 (47.7)	62 (48.8)
No	22 (53.7)	9 (42.9)	34 (52.3)	65 (51.2)
Pregnancy test				
Yes	23 (56.1)	14 (66.7)	27 (41.5)	64 (50.4)
No	18 (43.9)	7 (33.3)	38 (58.5)	63 (49.6)

4.2. Therapeutic aspects

The rate of antibiotic's prescrition is low. Post-exposure prophylaxis of HIV by prescribing anti-retroviral was effective in 54.3% of cases. Only 11.8% of survivors had received Hepatitis B immunization. Tetanus immunization concerned only 3.9% of the sexual assault survivors. Psychological care was provided to majority of the survivors (table 4)

Table 4: Distribution of study population according to therapeutic management (N = 127)

Variable	CURYn (%)	YCHn (%)	YGOPHn (%)	Totaln (%)
Antibiotic Prescription				
Yes	20 (48.8)	11 (52.4)	26 (40.0)	57 (44.9)
No	21 (51.2)	10 (47.6)	39 (60.0)	70 (55.1)
PEP prescription				
TDF + 3TC + EFV	13 (31.7)	13 (61.9)	29 (44.6)	55 (43.3)
ZDV + 3TC + EFV	6 (14.6)	3 (14.3)	1 (1.5)	10 (7.9)
Combination unspecified	0 (0)	0 (0)	4 (6.2)	4 (3.1)
None	22 (53.7)	5 (23.8)	31 (47.7)	58 (45.7)
Emergency Contraception				
Yes	13 (31.7)	13 (61.9)	17 (26.2)	43 (33.9)
No	28 (68.3)	8 (38.1)	48 (73.8)	84 (66.1)
Hepatitis B Immunization				
Yes	2 (4.9)	2 (9.5)	11 (16.9)	15 (11.8)
No	39 (95.1)	19 (90.5)	54 (83.1)	112 (88.2)
Tetanus Immunization				
Yes	4 (9.8)	1 (4.8)	0 (0)	5 (3.9)
No	37 (90.2)	20 (95.2)	65 (100)	122 (96.1)
Psychological Care				
Yes	35 (85.4)	13 (61.9)	60 (92.3)	108 (85.0)
No	6 (14.6)	8 (38.1)	5 (7.7)	19 (15.0)

DISCUSSION

In our study we included 127 survivors of sexual assault. Majority of the survivors of rape in our study were female. This is similar to studies by several authors who found a predominance of female survivors of sexual assault [5–7,11]. This is common in our African culture that fosters beliefs of perceived male superiority and social and cultural inferiority of women. However, our study found that males were not excluded as victims of sexual assault. This is similar to the study carried out by Menick et al. [5] who had a frequency of sexual assault amongst male of 27.5%.

In our study, those aged 10 to 15 years were more represented. This high representativeness of minors was noted by several authors [5,6, 12-15]. This is also the case Mbaye et al., who had detected an average age of 13 years for victims [16]. However, Adinew et al. in a study carried out in Ethiopia among female university students found that more than half (57.4%) of the rape survivors were in the 18 to 20 years age group [17]. This is because their study focused mainly on University students.

In our study, 39.4% of the sexual assault took place at the victim's or rapist's home. These findings were similar to a study carried out by Faye et al. in Dakar, who found that 36% of rape cases took place at the victim's or rapist's home [18]. However, this was slightly lower in several studies in Cameroon [6,15,19].

Vaginal penetration was the major form of penetration among the survivors (85.0%). This rate is similar to that observed by Foumane et al. who had a rate of 87.8% in Cameroon [6] and slightly higher than the 67.3% [11], 65.8% [14] and 61% [20] observed by Traore, Diallo and Cisse in Senegal, respectively. These results justify once again the need to systematically prevent the occurrence of STIs, HIV infection and unwanted pregnancies in sexual assault survivors.

Survivors most often came for consultation within the first 72 hours following the assault (61.4%). This is similar to the rate of 58.5% reported by M. Diallo et al. in 183 cases at the Pikine National Hospital [14]. Cisse et al. reported slightly higher numbers in Senegal, with 70% of survivors consulting within 72 hours of the assault [20]. This delay is higher compared to studies in Brazil which reported 65% of survivors consulting within 24 hours [21]. Efforts to raise awareness still need to be made to reduce the delay, taking into account the need to prevent certain complications and to take samples in an emergency. Many survivors suffer from this silent dilemma often because they are ashamed or want to preserve family balance especially when the perpetrator is a family member. The lack of knowledge of medical confidentiality is another factor that may explain this delay in consultation. Hence the need for information work with young people to gain their trust, but also the need to set up specialized structures to deal with cases of sexual assault with the greatest discretion, such as medical and legal services.

In our study, 90.5% of survivors were prescribed an HIV serology. This is similar to studies carried out by Dupong [19] in Yaoundé and Diallo et al. in Dakar [14], who had a rate of 90.2% and 89.8%, respectively. However this is higher than the rates of 61.1% observed by Foumane et al. [6] and 10% observed by Mbaye et al. [16]. HBs Antigenemia was prescribed in more than 80.3% of cases. This corroborates with findings by Diallo et al. in Senegal [14]. Syphilis sample, vaginal smear and Chlamydia were collected in 51%, 48.8% and 48.8% of cases, respectively. This was similar to findings by Dupong in Cameroon with samples collected in less than 50% of cases [19]. Our study population consisted mainly of minors who had not been sexually active in the past and who were not at risk of infection thus the low prescription.

Pregnancy test was carried out in a little over half of the survivors (50.4%). This is in conformity with the fact that about half of our study population were in the post-pubertal stage with a likelihood of getting pregnant.

Antibiotic was prescribed in less than half of the survivors (44.9%) in our study population. This is closer to the rates of 38.9% observed by Foumane

et al. [6]. This corresponds to the percentage of victims who came within the period of effective antibiotic prophylaxis. However this rate, is higher than the 17% and 13.7% observed by Diallo et al. [14] and Cisse et al. [20] in Senegal, respectively. In other studies by Mbaye et al.in Senegal, Traore et al. in Mali and Facuri et al. in Brazil, the rate of prescription of antibiotics was 66.6% [16], 70.6% [11] and 86.5% [21], respectively.

Post-exposure prophylaxis (PEP) by prescribing anti-retroviral was effective in 54.3% of cases. Foumane et al. in Cameroon observed a 46.6% rate of antiretroviral prescription to the survivors [6]. This constitutes a limitation in the care of these survivors of sexual abuse as we know that many cases of infection to HIV/AIDS after rape have been reported in particular by Menick in Cameroon (37.5%) [22]. Our figures are low compared to the Brazilian figures with 90% of victims having PEP with antiretrovirals [21]. This is particularly alarming, especially as only one fifth of the victims of rape is known to consult a health care provider following rape occurrence in Cameroon [5]. We also observed that shortage in the antiretrovirals in Cameroon may have been a reason for the low prescription rate.

One third of the survivors received emergency contraception. This is low knowing that more than half of the survivors were in pubertal and post-pubertal stage. Mbaye [16] and Cisse [20] had similar results (34% and 37.8% respectively) in their study population in Senegal.

Only 11.8% of survivors had received Hepatitis B immunization. This is low compared to the 82.9% observed by Facuri et al. in Brazil [21]. This may be explained by the fact that most of the survivors may have received the Hepatitis B immunization as part of the government's routine Expanded Programme of Immunization (EPI).

Tetanus immunization concerned only 3.9% of the sexual assault survivors. This low rate is in conformity with the fact that threats were the commonest type of constraints used by the assaulters.

Psychological care was provided to majority of the survivors (85%). When we know that 95% of survivors of sexual violence develop significant mental impairment [23], these figures raise questions about the knowledge of mental damage to medical staff and the survivors themselves which should not be minimized in any of the survivors.

CONCLUSION

We can conclude that :

- Rape is common in our setting among infants and adolescents, and single status, students.
- Survivors of rape arrived the hospital within 72 hours, with no past history of sexual assault and mainly vaginal lesions were observed on clinical assessment.
- HIV, Hepatitis B, Pregnancy test and Syphilis were the most common workups prescribed in more than half of survivors. Antibiotics, post-exposure prophylaxis, emergency contraception were prescribed in less than half of the survivors with some survivors not receiving psychological help.

COMPETING INTERESTS

The authors have no conflicts of interest to declare for this study.

CORRESPONDING AUTHOR:

Fouedjio Jeanne Hortence,
Department of Obstetrics and Gynecology, Unviversity of Yaoundé I-Cameroon
Yaounde Central Hospital
Email: fouedjiojeanne@yahoo.fr

REFERENCES

1. World Health Organization. Clinical management of rape survivors: developing protocols for use with refugees and internally displaced persons. [Internet]. Geneva: World Health Organization; 2004 [cited 2019 Nov 13]. Available from: http://www.who.int/reproductivehealth/publications/emergencies/924159263X/en/index.html
2. WHO | Sexual violence [Internet]. WHO. [cited 2019 Jan 30]. Available from: http://www.who.int/entity/reproductivehealth/topics/violence/sexual_violence/en/index.html
3. Hayati EN, Högberg U, Hakimi M, Ellsberg MC, Emmelin M. Behind the silence of harmony: risk factors for physical and sexual violence among women in rural Indonesia. BMC Womens Health. 2011 Nov 23;11(1):52.
4. Rape Statistics By Country 2019 [Internet]. [cited 2019 Nov 15]. Available from: http://worldpopulationreview.com/countries/rape-statistics-by-country/
5. Menick DM. [Sexual abuse at schools in Cameroon: results of a survey-action program in Yaounde]. Med Trop Rev Corps Sante Colon. 2002;62(1):58–62.
6. Foumane P, Dohbit JS, Monebenimp F, Natolga B, Meka ENU, Mboudou ET. Clinical Study of Rape against Females at the Yaoundé Gyneco-Obstetric and Pediatric Hospital, Cameroun. Adv Sex Med. 2014 Apr 4;4(2):11–6.
7. Théra JP, Soumah M, Traoré T, Touré M, Traoré M, Sow ML. [Epidemiological, clinical and judicial aspects of sexual assault in Bamako (Mali)]. Sante Publique Vandoeuvre-Nancy Fr. 2014 Feb;26(1):123–9.
8. WHO | Understanding and addressing violence against women [Internet]. WHO. [cited 2019 Nov 13]. Available from: https://www.who.int/reproductivehealth/topics/violence/vaw_series/en/
9. Campbell R, Dworkin E, Cabral G. An Ecological Model of the Impact of Sexual Assault On Women's Mental Health. Trauma Violence Abuse. 2009 Jul;10(3):225–46.
10. Jewkes R, Levin J, Mbananga N, Bradshaw D. Rape of girls in South Africa. The Lancet. 2002 Jan 26;359(9303):319–20.
11. Traore Y, Mounkoro N, Teguete I, Djire MY, Diallo A, Bagayogo M, et al. [Clinical and medico - legal aspects of sexual aggressions at Gabriel Toure teaching hospital]. Mali Med. 2010;25(3):27–30.
12. Adama-Hondégla AB, Aboubakari A-S, Fiagnon K, N'kamga-Tchocote AR, Akpadza K. [Epidemiological and clinical aspects of the management of sexual aggression among female victims in Lomé]. Afr J Reprod Health. 2013 Mar;17(1):67–72.
13. Gaensslen RE, Lee HC. Sexual Assault Evidence: National Assessment and Guidebook: (528882006-001) [Internet]. American Psychological Association; 2001 [cited 2019 Dec 17]. Available from: http://doi.apa.org/get-pe-doi.cfm?doi=10.1037/e528882006-001
14. M. Diallo M, Babacar B, Abdoul AD, Aminata N, Cyr EG, Codou S, et al. Epidemiological, Clinical Aspects and Treatment of Victims of Sexual Abuse in the Gynecology and Obstetrics department of Pikine National Hospital in 183 cases. Open J Obstet Gynecol. 2020;10:558–70.
15. Nembe Tendi LG. Epidemiological, clinical and therapeutic aspects of sexual assault among children and adolescents at the Yaounde Central Hospital. Thesis for the obtention of a Clinical Specialisation diploma in Gynecology/Obstetrics; 2019.
16. Mbaye M, Gueye M, Ndiaye-Gueye null, Mame D, Dieng O, Niang MM, et al. [Sexual abuse in Ziguinchor, Senegal: epidemiology and management]. Tunis Med. 2013 Sep;91(8–9):499–504.
17. Adinew YM, Hagos MA. Sexual violence against female university students in Ethiopia.
18. Faye Dieme ME, Traore AL, Gueye SMK, Moreira PM. Sexual abuse: epidemiological, clinical aspects and management at Gynaecological and Obstetrical Department of Dakar University Hospital. J Gynecol Obstet Biol Reprod (Paris). 2008 Jul;37(4):358–64. BMC Int Health Hum Rights. 2017;17(19).
19. Dupong AG. Epidemiological, Clinical, Psycho-social and therapeutic aspects of sexual assault at the Yaounde Gyneco-Obstetric Pediatric Hospital. Thesis for the obtention of a Medecinae Doctorae degree; 2019.
20. Ct C, Mm N, Ak S, Eh F, Jc M. [Epidemioclinical and legal aspects and cost management of sexual abuse among minors in Dakar, Senegal]. J Gynecol Obstet Biol Reprod (Paris). 2015 Feb 25;44(9):825–31.
21. Facuri C de O, Fernandes AMDS, Oliveira KD, Andrade TDS, Azevedo RCS de. [Sexual violence: a descriptive study of rape victims and care in a university referral center in São Paulo State, Brazil]. Cad Saude Publica. 2013 May;29(5):889–98.
22. Menick DM, Ngoh F. Seroprevalence of HIV infection in sexually abused children in Cameroon. Med Trop Rev Corps Sante Colon. 2003;63(2):155–8.
23. Salmona M. Impact of sexual violence on victim's health: Traumatic memory at work. Psychotherapies. 2017;207–18.