



## The Epidemiological Aspects of Gender-Based Sexual Violence in the Issaka Gazoby Maternity Hospital of Niger

Yacouba Garba Karim<sup>1,3\*</sup>, Faye Labo Rokhaya<sup>3</sup>, Tahirou Maina Kafougou<sup>3</sup>, Ndoye El Hadji Oumar<sup>3</sup>, Guede Salamatou<sup>2</sup> and Soumah Mohamed<sup>3</sup>

<sup>1</sup>Laboratory of Surgical Anatomy, Faculty of Health Sciences, UAM-Niamey, Niger

<sup>2</sup>Maternity Issaka Gazoby, Niamey, Niger

<sup>3</sup>Forensic Medicine and Forensic Expertise, Faculty of Medicine, UCAD, Senegal

\*Corresponding Author: Yacouba Garba Karim, Laboratory of Surgical Anatomy, Faculty of Health Sciences, UAM-Niamey, Niger.

DOI: 10.31080/ASMS.2025.09.2013

Received: December 17, 2024

Published: January 21, 2025

© All rights are reserved by Yacouba Garba Karim, et al.

### Abstract

**Introduction:** Sexual violence is a scourge in the world despite numerous binding human rights treaties prohibiting violence, especially against women and children. This study allows us to highlight the epidemiological characteristics of sexual violence followed at the Issaka Gazoby Maternity (MIG).

**Methods:** This is a retrospective study of a descriptive type covering the period from 01/01/2022 to 31/12/2022. This study consisted of collecting all the alleged cases of sexual violence received in forensic expertise at MIG as part of a police and gendarmerie requisition. 424 expert files for gender-based violence were collected, including 309 on alleged sexual violence against women and minor girls in the city of Niamey.

**Results:** The average age was 13 with extremes of 3 months and 30 years. All alleged victims were female. Primary school students were more affected by sexual violence followed by girls in secondary (middle and high school) with 11 cases respectively, 3.56% and 10 cases or 3.24%. Talladje was more affected by sexual violence (8.41%). Rape was the most common type of assault (21.03%) and occurred more during the day (12%) between 8am and 11pm compared to 3% at night. 11 victims (3.56%) had been physically restrained. The documented gestational state of 51 victims (16.5%) following alleged sexual assaults was confirmed. The clinical examination was performed within 48 hours of the event in 54% of the victims.

**Conclusion:** As a result of this work, we understand the extent of sexual violence in the Niamey region. The statistics are alarming and the number of assaults in households under the weight of society, culture or religion is even higher, so that preventive measures must be applied.

**Keywords:** Sexual Violence; Women; Forensic

**Introduction**

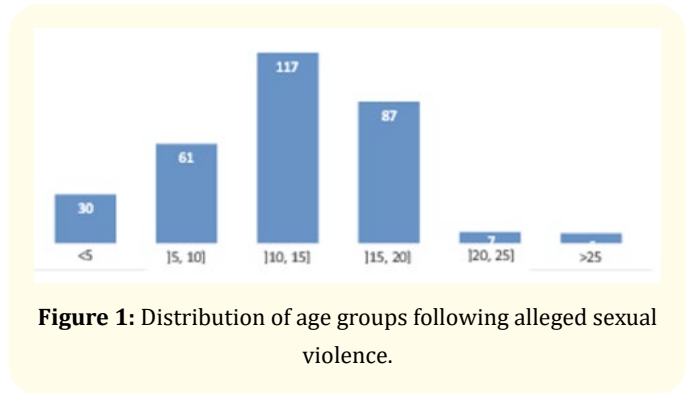
Sexual violence is a scourge in the world despite numerous binding human rights treaties prohibiting violence, especially against women and children. In almost 9 out of 10 cases, the victim of sexual assault is a girl or woman [1]. Violence against women and children is a form of discrimination and a violation of human rights. The UN estimates that one in three women worldwide has experienced physical or sexual violence because they are a woman; this is about 736 million women, a number that has remained unchanged over the last decade. Violence is a major obstacle to the development of women and girls, as well as the well-being and development of their communities and societies at large [2]. Thus, the statements listed in 2010 by public bodies and NGOs show that victims of gender-based violence (GBV) are women and that the men who commit these acts are most often the spouses of the victims: that is, there is a high prevalence of VBG in households in Niger [3]. Our study will focus on sexual violence against women and girls at the Issaka GAZOBY maternity hospital, from which our objective is to highlight the prevalence of this sexual violence and its epidemiological characteristics.

**Methods**

This is a retrospective study of the type descriptive of medical expert reports covering the period from 01/01/2022 to 31/12/2022. This study consisted of collecting all the cases of alleged sexual violence received in consultation at the Issaka Gazoby Maternity. These were reports of medical examinations carried out in the context of a police and gendarmerie requisition. We recorded a total of 424 medical reports for gender-based violence, including 309 alleged sexual abuse against women and underage girls in the city of Niamey. Results were analyzed by SPSS and Excel. The variables sought were: information about the victim, information about the aggressor or aggressors, information about the facts and background of the victim.

**Results**

The age group [10-15] years was more affected by alleged sexual violence with 37.86% (n = 117) in our study followed by the age group between [15-20] years with 28% of cases (Figure 1). Mean age was 13 with extremes of 3 months and 30 years. Standard deviation is 5.065.



**Figure 1:** Distribution of age groups following alleged sexual violence.

In our study all the alleged victims received at the Issaka Gazoby Maternity were female.

Primary school students have suffered more sexual violence followed by girls of secondary (middle and high school) with a total of 11 cases respectively, 3.56% and 10 cases or 3.24%. The level of education or occupation was not reported to more than 91% (Table 1).

Level of education or occupation	Staff	Percentage
Pre-school	3	0,97
Primary	11	3,56
College	7	2,27
High school	3	0,97
Quramic School	1	0,32
Second Class Soldier	1	0,32
Housewife	1	0,32
No information	282	91,26
<b>Total</b>	<b>309</b>	<b>100</b>

**Table 1:** Educational background of alleged victims or their occupation.

The address collected was the address of the alleged victim, failing which the applicant’s police station address was considered, as far as the stations cover the restricted areas. Thus, the Talladje district was more affected by sexual violence with 8.41% (26 cases) followed respectively by the Francophonie district (7.44%) and the Niamey 2000 district (6.15%). However, information was missing in 52.75% (163 addresses not filled).

The majority of alleged victims were of Nigerian nationality, foreigners accounted for only 3.2%, or 10 out of 309 cases.

Our study found among the alleged 4 victims (1.3%) in a situation of mental disability with type of behavior disorder associated with logorrhea, mental retardation, consciousness disorder and feeling disoriented. 2 of them (0.65%) had a physical disability including deafness and motor deficit of the right hemibody (Table 2).

Cross table Mental disability: * Physical disability:					
		Physical disability			Total
		Number of staff	No	Yes	
Mental disability :	No	0	304	1	305
	Yes	1	2	1	4
Total		1	306	2	309

Table 2: Physical and/or mental disability.

Pregnancy tests (Beta-HCG) and/or abdominal pelvic ultrasound allowed us to confirm the gestational status of 51 victims, 16.5%, following alleged sexual assaults. The situation of 132 women and girls (42.72%) was not known (Figure 2).

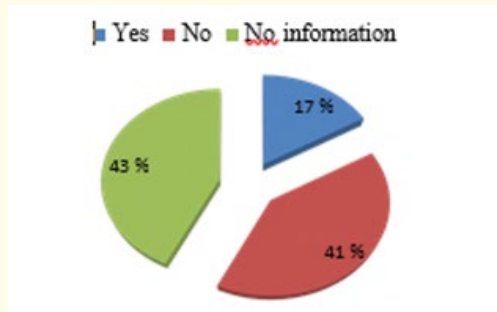


Figure 2: Situation of alleged pregnant victims following sexual assault.

50.98% (26/51) of the alleged victims who became pregnant are between 16 and 20 years old, followed by the younger victims with 41.17% (21/51), belonging to the age group 11-15 years.

In our study, the alleged rape was the most frequent type of assault with 21.03% followed by the alleged child abduction (10.35%) and then alleged indecent assault (10.03%). 177 cases, or 57.28%, did not have information on the alleged nature of the assault.

The alleged sexual violence occurred more in the time slot of 15h-23h with about 9% of cases (n = 26) followed by that of 23h-8h with 4% and then that of 8h-15h with 3%. Unfortunately, in 84% of cases, the time at which the alleged events occurred was not specified (Figure 4).

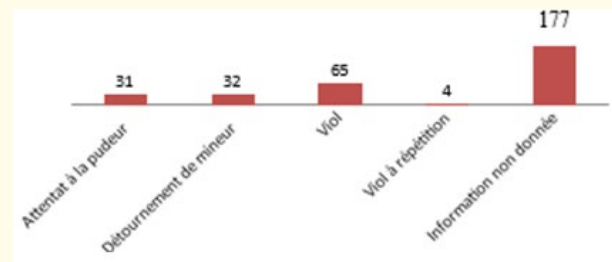


Figure 3: Distribution of types of suspected assault.

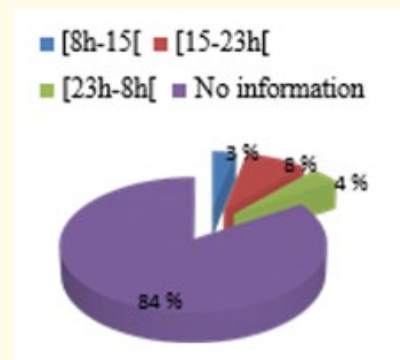


Figure 4: Time interval of alleged events.

In our study, 13.27% of the alleged assaults (n = 41) took place at a home, two cases were in the home of the alleged victim, the rest of the cases occurred in either the home of the alleged aggressor himself or a home he would have prepared.

Approximately 2% of the alleged assaults occurred on the road (n = 7) and in a public space (n = 6). In 81% of cases the location of the event was not reported (Table 3).

The trend curve of suspected sexual assaults during 2022 shows a peak of 12% to 13% in March, May and June, then gradually falling towards the end of the year to 5% of alleged sexual assaults.

Location of incident	Staffing	Percentage
Domicile	41	13,27
School	2	0,65
Public space	6	1,94
House under construction	2	0,65
On the road	7	2,26
Not determined	251	81,23
<b>Total</b>	<b>309</b>	<b>100</b>

**Table 3:** Distribution of suspected assaults by location.

The alleged aggressors had to use inhalation and ingestion chemicals in 2 cases. The use of a knife was reported by 2 alleged victims without any notion of injury. And 11 alleged victims, or 3.56%, had suffered physical violence with sexual assault; they were beaten (3 cases), strangled (1 case), kidnapped (6 cases) and attached to the mouth with a scarf (1 case).

In our study, the number of women who were allegedly assaulted by a man was higher than 21.36% (n = 66 women and girls). The alleged rape in a meeting was distributed as follows: 0.97% or 3 women assaulted by 2 men; 1.29% or 4 women assaulted by 3 men; 0.65% or 2 women assaulted by 4 men and 0.32% or 1 woman assaulted by 6 men. There were also 2 cases where 1 alleged man raped 3 sisters including a repeated rape in one of the sisters and another alleged who raped 2 sisters.

The alleged aggressors were in most cases unknown to victims 24.6% (n = 76 cases). Among those who are known, the neighbors were more numerous with almost 4% (n = 11 cases) followed by small friends (2.6% or n = 8 cases) and then family members (0.65 or n = 2 cases). Only one case where the spouse was incriminated was encountered. Information on alleged aggressors was absent in more than 68% (n = 211 cases).

**Discussion**

In our study, the age group ]10 -15] years corresponding to the first adolescence was the most affected by alleged sexual violence: 37.86% of cases, followed by the age group between ]15-20] years

or 28% of cases corresponding to the second adolescence. It should be noted that 67.6% of the alleged victims were 15 years old or younger. The average age was 13 with extremes of 3 months and 30 years. Standard deviation is 5.065.

We can think that this is due to the large majority of young people in Niger and most living in conditions of extreme poverty therefore very vulnerable. A vulnerability exploited by the aggressors who are usually more mature, through threats, intimidation or blackmail in the face of young girls unable to protect themselves.

Our study is superposable to that of M. Lèye and all (2019) in Dakar who find a median age of 13 years. But as regards the rate of all affected minors, we were more than 95% against 24.8% for Mr. Lèye., *et al.* [4]. Our results (67.6%) were lower than those of C.M.T Diallo in Conakry (2022), who found 73.37% of victims aged 15 and under [5]. Like ours, the age group 11 years old – 16 years old was more represented with 46.9% in the study by C.T. Cisse., *et al.* in Dakar (2015) but the percentages are not superimposed [6].

Moreover, our study is contrary to that of W. Thaljawi and all (2023) in Tunisia who find in its results a median age of 17 years with extremes ranging from 4 years to 52 years. In the same study, the number of minor victims (< 18 years) was lower (57.1%) than those in our study [7].

In our study all the alleged victims received at the Issaka Gazoby Maternity were female. This is related to the fact that the MIG only receives female victims, in case the victim is male, it is referred to the National Hospital of Niamey, General Reference Hospital or the National Hospital Amirou Boubacar Diallo de Lamordé, which are all of the same rank in the health pyramid.

It should be noted, however, that most studies on sexual violence identify the scourge among female subjects. This is the case of F. Niort., *et al.* in Marseille (2014), which had 90% women in their study [8] and Mr. Lèye., *et al.* in Senegal who have 100% women [4].

The primary school students had suffered more alleged sexual violence followed by girls of secondary school with a total of 11 cases respectively, 3.56% and 10 cases or 3.24%. The level of education or occupation was not reported to more than 91%. This may be explained by the fact that at this age they are vulnerable, easier to divert because of their ignorance. C.M.T Diallo in Conakry

goes in the same order as our result but with much higher percentages is a majority among primary students with 59.63% followed by secondary school with 28.9% [5].

However, our results are contrary to those of F. Irgui and all in Rabat, Morocco, where the university level was more representative with 21% women followed by secondary (middle school) with 19% [9].

The Talladjé district (a suburb of the capital Niamey, one of the oldest districts in Niamey) was more affected with 8.41% (or 26 cases), followed respectively by the Francophonie district (7.44%) and the Niamey 2000 district (6.15%). Information was missing in 52.75% (163 addresses not filled). Our results are in the same direction as C.T. Cisse and all in Dakar (2015) who had the majority of patients (68.1%) who lived in the Dakaroise suburbs [6]. Our results are also contrary to those of S. D. Floriane (2010) in Dakar, where the suburbs (38.64%) came second after the peri-urban area with 55.68%, a place where sexual assaults were more frequent [10].

Our study found in 4 alleged victims (1.3%) a situation of mental disability with type of behavior disorder associated with logorrhea, mental retardation, consciousness disorder and feeling disoriented. 2 of them (0.65%) had a physical disability including deafness and motor deficit of the right hemibody. The aggressors use their disability to violate them; sometimes they do not even resort to physical violence in order to commit their act [11]. They are unable to protect themselves from the abuse of their person. We are getting closer to the results of S. D. Floriane, who found 3.64% of victims in physical or mental disabilities [10].

Sexual assaults on people with mental disabilities, especially in geriatric institutions in France are not uncommon because of the staff or another person with a disability. Evidence of the assault in this context is difficult because interrogation is questionable. The clinical examination should be supplemented by a psychiatric assessment [12].

In our study, 51 victims or 16.5% had become pregnant as a result of alleged sexual assaults. The situation of 132 women and girls (42.72%) was not known. Pregnancy is the clear evidence that a sexual relationship has taken place. The psychological climate of pregnancy can be difficult [12]. Pregnancy is perceived as an

element of aggression that is there to remind them [11]. This could also challenge the families on the silence of the facts and the non-denunciation of the aggressors.

If it had not been hidden, the medical consultation would have taken place from the first hours and the prescription of the morning-after pill would certainly have prevented these unwanted pregnancies.

M.M.M. Leye., *et al.* found a percentage of pregnancy much lower than our results, namely 2% [14]. But the results of S.D. Floriane are close to ours and find 18.69% of pregnant victims following sexual abuse [10].

In our study, the most common type of assault was alleged rape with genital penetration (21.03%), followed by the suspected child abduction (10.35%) and the alleged indecent assault (10.03%). 177 alleged victims or 57.28% had no information on the nature of the attack.

M. H-Wiedemann., *et al.* (2018) in Nancy found different results than ours. In their study, touching was more representative (66.6%), followed by penetration rape (52.5%) [13].

C.T. Cisse., *et al.* and F. Niort., *et al.* found in their study results in the same order as ours but with a percentage of rape with vaginal penetration three times higher, 61% and 64.9% respectively [6,8].

S.D. Floriane also found 89.09% vaginal penetration far above our values [10]. These results justify the need to systematically prevent STI, HIV infection and unwanted pregnancies from occurring among victims of sexual abuse [6].

The alleged sexual violence occurred more in the time slot of 15h to 23h with about 9% of cases (n = 26) followed by that of 23h-8h with 4% and then that of 8h-15h with 3%. Thus we see that during the day (8h to 23h) the alleged sexual violence was higher (12%) with a peak of 15h to 23h, compared to 3% at night until the early morning (23h-8h). Unfortunately, in 84% of cases, the time at which the alleged facts occurred was not specified.

This may be explained by the fact that most children are out in the afternoon. Those who are in school come out of school at 3 pm, so they are on the way back from school, the non-schooled are subject to begging or domestic work and others are sent by parents or a family member for commissions.

The work of S.D.Floriane goes in the same order in which the majority of sexual assaults took place during the day between 7am and 9pm with 75.81% of cases [10].

Our work also approaches those C.T.Cisse and all who find most sexual abuse in the day with a peak between 13h and 22h. Only 5.8% of cases were committed after 11:00 pm, that is between 11:00 pm and 8:00 am [6].

This is the case of C. Macaigne., *et al.* (2016) in France, which accounted for 50% of sexual assault cases (8 out of 16 cases) occurring during the daytime period [14], and T. Traoré who had 78.4% of assaults between 7am and 11pm [16].

In our study, 13.27% of the alleged assaults (n = 41) occurred at home, two cases (0.65%) took place at the home of the alleged victim, the rest of the cases (12.62%) took place at a home of the alleged aggressor himself even a home he would have prepared.

Approximately 2% of the alleged assaults occurred on the road (n = 7) and in a public space (n = 6). In 81% of the cases, the place of the incident was not reported.

This could be explained by the fact that the aggressors often managed to lure the victim home; either under threat or by asking for a service that would force him to find himself in their trap.

C.T.Cisse found its results in the same order, concerning the majority of sexual assaults occurring outside the family context, most often in the victim's home (41.8%). Assaults within the family were 41.1% higher than those in our study, which was 2% [6].

The results of A.M. DIALLO (2022) in Conakry show that 50% of the assaults took place in the home of the aggressor [15]. As with the other data, W. Thaljawi finds 43.8% of the assaults that took place in the home of the aggressor [7].

In contrast to our results, T. Traoré encountered 91.9% of assaults in peri-urban areas.

Only 5.2% had occurred in the home [16]. And if we take the case of F. Irgui for sexual violence suffered in a conjugal context, the majority of women 71% said they had suffered the aggression within the family home [9].

It should be noted that most sexual assaults in the victim's home are usually the work of a known aggressor, close to the victim (incestuous or a neighbor) whose name must be kept secret to preserve the family. This explains the low rate of reporting of assault in the victim's home. On the other hand, underreporting may be linked to certain socio-cultural considerations such as the victim's weak decision-making power, shame, fear of being rejected by the family, the neighbourhood but also the need to preserve the values of virginity and honour that are required of them [4,17].

The trend curve of alleged sexual assaults during 2022 shows a peak of 12% to 13% in March, May and June, then gradually falling towards the end of the year to 5% of suspected sexual assaults.

This may be explained by the fact that in Niger, March and May are the hottest months of the year with temperatures above 45 degrees. June remains warm but rains are beginning to appear in some parts of the country. During these periods the population is practically outside by ricochet children too. At the end of the year, the attacks were less frequent because families stayed outside less often due to the cold. According to W. Thaljawi and all, sexual assault cases tended to occur in the summer and fall [7].

The alleged aggressors had to use inhalation and ingestion chemicals in 2 cases. The use of a knife was reported by 2 presumed victims without any notion of injury. And 11 alleged victims or 3.56% have suffered physical violence with sexual assault.

The use of force and of weapons were the most used and with a much higher percentage, 53.9% and 39.2% respectively in the study by Mr. Leye [4]. AM Diallo when he found other means used by the attackers of his sample and in higher percentage than our results: persuasion in 38.7% and verbal threat in 25.8%. Then comes the threat with a weapon in 22.6% and physical constraint in 12.9% [15].

In our study, the number of women who were allegedly assaulted by a man was higher with 21.36% (n = 66 women and girls). The alleged rape in meetings were distributed as follows: 0.97% or 3 women assaulted by 2 men, 1.29% or 4 women assaulted by 3 men, 0.65% or 2 women assaulted by 4 men and 0.32% or 1 woman assaulted by six men.

T.M.C. Diallo and all are in the same order but with higher percentages. The prevalence among them was 92.66% of women assaulted by 1 individual; 5.05% of women assaulted by 2 individuals and 2.29% of women assaulted by 3 or more individuals [5].

There was also in our study, 2 cases where 1 man alleged to have raped 3 sisters including a repeated rape of one of the sisters and another who presumed to have raped 2 sisters. This case was recorded among the assaults where the accused were neighbors of the neighborhood. According to the facts, the 3 girls were in the street when he called them to pay him for soap. When they arrived at his home, he began to strip them one by one. The other assailant asked the girls to clean his room.

The alleged aggressors were in most cases unknown to the victims 24.6% (n = 76 cases). Among those who are known, neighbors were more numerous with almost 4% (n = 11 cases) followed by small friends (2.6% or n = 8 cases) then family members (0.65 or n = 2 cases). Only one case where the spouse was incriminated was encountered. In addition, information on the alleged aggressor was absent in more than 68% (n = 211 cases). C.T. Cisse and all had in their sample 46.9% of the aggressors belonging to the child's immediate family entourage. The parent was incriminated in 7.9% of cases, a friend in 17.8% and an unknown in 27.4% of cases. In the same study, some particularities were noted, namely, the aggressor was the roommate (11.4%), the uncle (10%), the boyfriend (5.7%), the Quranic teacher (4.3%) or the father-in-law (3.6%) [6]. T.M.C. Diallo and all found in their results the following offending aggressors: the boyfriend in 30.78%, the neighbors in 27.10% of cases, the guards (4.13%), the cousins (3.67%), the acquaintances (11.47%) [6].

## Conclusion

At the end of this work, we understand the extent of sexual violence in the region of Niamey, capital of Niger. The statistics are alarming and the number of assaults in all households under the weight of society, culture or religion is even higher.

The number of cases is increasing every year according to statistics from the Department of Justice. The hardest part was to live these atrocities but above all to pay the medical expenses so that the evidence of these horrors could be brought by specialists.

Most of those who had the courage to report to the competent authorities went home unable to pay the consultation fees and the paraclinical balance sheet to try to settle the situation amicably.

## Competing Interests

The authors declare no competing interest.

## Acknowledgements

The authors wish to thank Professor Mohamed SOUMAH for the follow-up and encouragement during the redaction of this document.

## Bibliography

1. M LACHAPELLE and D GAGNE. "Statistique sur les agressions sexuelles INSPQ". Institut national de santé publique du Québec (INSPQ) (2022).
2. UNE OMNIPRESENCE DEVASTATRICE (OMS), article mis en ligne le 9 mars 2021 par MmeCarla Drysdale (2023).
3. FD SALL., *et al.* "Rapport Ampleur et Déterminants des Violences Basées sur le Genre au Niger". (2015): 29-30.
4. MMM Leye., *et al.* "Etude des facteurs associés au retard de consultation sanitaire des victimes de viols au Sénégal". *Revue d'Epidémiologie et de Santé Publique* 67 (2019): 329-335.
5. TMC Diallo., *et al.* "Violences sexuelles sur mineurs à l'unité de médecine légale de l'hôpital national Donka (Guinée)". Communication : 1er congrès de médecine légale et santé au travail de Guinée, Conakry (2022).
6. CT Cisse., *et al.* "Aspects épidémio-cliniques, juridiques et coût de la prise en charge des abus sexuels chez les mineurs à Dakar, Sénégal". *Journal de Gynécologie Obstétrique et Biologie de la Reproduction* 44 (2015): 825-831.
7. W Thaljawii., *et al.* "Les femmes victimes d'agression sexuelle à Sidi Bouzid : profil épidémiologique et intervention médico-judiciaire". *La Revue de Médecine Légale* 14.4 (2023): 100377.
8. F Niort., *et al.* "Étude rétrospective épidémio-clinique sur 10 ans des victimes de viols reçues en consultation à l'Institut médico-légal de Marseille, CHU de Timone. Analyse de 592 cas de victime de viol". *La Revue de Médecine Légale* 5.2 (2014): 62-69.

9. F Irgui., *et al.* "Bilan d'activité de l'unité de prise en charge des femmes et des enfants victimes de violences au centre hospitalier universitaire Ibn Sina de Rabat au cours de l'année 2016". *La Revue De Médecine Légale* 10 (2019):63-69.
10. SD Floriane. "Les agressions sexuelles sur mineurs : aspects cliniques, épidémiologiques et médico-légaux au Sénégal de 2000-2009". Thèse de Doctorat En Médecine 140 (2010).
11. MMM Leye., *et al.* "Perceptions des populations sur les violences faites aux femmes au Sénégal Santé publique". 31.4 (2019): 581-590.
12. FG May and O Thiebaugeorges. Le médecin face aux agressions sexuelles et au viol". *EMC-Médecine* 2 (2005) 13-23.
13. M H-WIEDEMANN., *et al.* "Agressions sexuelles sur mineurs : étude d'une population d'enfants ayant consulté dans une unité médico-judiciaire hospitalière entre 2011 et 2015". *Archives de Pédiatrie* 25 (2018) 247-250.
14. C Macaigne., *et al.* "Agressions sexuelles chez les femmes âgées de plus de 75 ans. Expérience de l'unité médico- judiciaire (UMJ) de Créteil". *La Revue De Médecine Légale* 7 (2016): 90-96.
15. AM Diallo. "Agressions homosexuelles chez les mineurs à Conakry : Aspects épidémiologique et médico- legal". Communication : 1er congrès de médecine légale et santé au travail de Guinée, Conakry (2022).
16. T Traore. "Aspect épidémio-clinique et judiciaire des agressions sexuelles au centre de santé de référence de la commune IV du district de Bamako". Thèse de doctorat non publiée. Université de Bamako, Bamako (2011).
17. FF Romdhanea., *et al.* "Violence sexuelle exercée sur les femmes en Tunisie". *L'Encéphale* 45 (2019): 527-529.