



## Rape against Brazilian Women: Characteristics of Victims and Sex Offenders

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### Abstract

**Background:** Violence against women is a serious social problem and affects mainly young women. This study aimed to evaluate sexual violence against women in Campina Grande, Brazil.

**Methods:** A retrospective study with analysis of 886 forensic medical reports of sexual violence from the Institute of Legal Medicine of Campina Grande, Brazil, was conducted between January 2005 and December 2009. Sociodemographic variables related to victims, offenders and aggressions were analyzed. Significance level of 5% was adopted.

**Results:** Two hundred and ninety-one cases of rape (32.8%) were confirmed, the majority of victims aged between 0 and 19 years (89.9%), were single (98.8%) and had low educational level (86.9%), with association with marital status ( $P = 0.02$ ). The sex offender was known to the victim in 84.2% of cases and in 93.8% of cases, he acted alone. There was an association between rape and the relationship with the offenders ( $P = 0.01$ ) and the age of the offenders ( $P = 0.03$ ). The rape occurred in most cases at the home of victims (49.3%), with the use of violence in 72.3% of cases, but only 5.7% of the victims exhibited physical injuries. There was an association between rape and variables date of occurrence ( $P = 0.001$ ), previous virginity ( $P = 0.001$ ) and violence during practice ( $P = 0.001$ ).

**Conclusion:** Over one third of women were victims of rape, predominantly adolescents, unmarried and with low educational level. The offenders were known to the victims, and acted alone in most situations, making use of physical violence.

**Keywords:** Sex offenses, Rape, Domestic violence, Brazil

### Introduction

Violence is one of the leading causes of morbidity and mortality in young people (1). Rape is defined by the World Health Organization (WHO) as any sexual act or attempt to obtain sexual act, with unwanted sexual comments or advances against a person's sexuality using coercion (2). Brazilian law defines rape as "embarrassing someone through violence or serious threat to have sexual inter-

course or to perform or allow the practice of other libidinous acts" (3).

Between 1% and 12% of women, over 15 years of age have been sexually assaulted by unknown perpetrators (4). In the United States, the prevalence is 18% in adult women with an annual incidence from 0.3% to 1.1% (5), whereas in South Africa, the prevalence is also high, but hardly ever measured (4). In Brazil, the reported prevalence is 18% (6).

The impact of sexual violence is multiplied when attacked women become pregnant and violence is passed from generation to generation (7). Few women seek health services immediately after suffering a sexual assault. Less than 10% of cases of sexual assault are registered in police stations (8).

The number of confirmed cases of rape using physical violence during practice increases when the perpetrators are unknown. The violence practiced by current partners is as prevalent as that perpetrated by strangers, but since cohesion is often not physical, it leaves no trace and therefore, the complaint is not performed (5).

The assistance to victims of rape is divided into physical and psychological care (4, 8-10) and collection of evidence for criminal prosecutions (11). The collection involves physical, emotional and health examination and observations about body injuries including the genital area with collection of samples for DNA analysis (4, 9).

Given the above and the relevance of this topic, this study aimed to characterize rape committed against Brazilian women and to identify possible associations between its occurrence and variables related to the victims, to perpetrators, to the aggression and to the resulting injuries.

## Material and Methods

### Study Design

A retrospective study design was undertaken by the analysis of expert medical reports derived from medical forensic exams performed at the Department of Forensic Medicine of the city of Campina Grande, PB, Brazil, between January 2005 and December 2009. The city of Campina Grande presented a considerable cultural, social and economic disparities, average monthly income of \$ 110 per capita and Human Development Index of 0.72.

### Sample

About 886 forensic medical reports of sexual violence committed against female victims (children, adolescents, adults and elderly) were analyzed. The inclusion criterion was the crime of sexual abuse presented by the patient or her legal representative

consistent with the provisions of Articles 213 and 217-A of Brazilian criminal law. Article 213 criminalizes as rape any non-consensual sexual act committed with the use of physical force or serious threat. Article 217-A, dealing with rape of vulnerable individuals, covers sexual acts against children under 14 years or against those of any age who cannot offer resistance or give consent (1).

### Data Collection

Information regarding socio-demographic variables (year, age, marital status and educational level) were collected related to the offenders (known or unknown; single or multiple and age) and aggression (location, time elapsed between the event and forensic examination, previous virginity, use of violence, body injuries and collection of material for DNA testing). The information from the forensic medical reports were gathered and transferred to specific registration forms.

### Data Analysis

Data analysis involved descriptive statistics (frequency distribution) and analytic statistics. To test the association between the occurrence of rape and other variables a process of bivariate analysis was conducted, using the exact versions of the nonparametric Pearson's chi-squared test or Fisher's exact test. The level of statistical significance was set at 5% with a confidence interval of 95%.

### Ethical Aspects

This study followed ethical guidelines recommended by the Brazilian legislation and was approved by the Human Research Ethics Committee of the State University of Paraiba.

## Results

The incidence of rape was 32.8% (n = 291), with the largest percentage of cases (22.7%) being recorded in 2005. The average age of victims was 15.68 years ( $\pm$  6.36), with minimum of two years and maximum of 68 years. Most were between 10 and 19 years (89.9%), were single (98.8%) and had low educational level (86.9%). There was an association between rape and marital status ( $P = 0.02$ ) (Table 1).

**Table 1:** Distribution of victims of rape according to sociodemographic variables

Variables		Rape				Total		P-value
		Yes		No		n	%	
		n	%	n	%			
Year	2005	66	22.7	130	21.8	196	22.1	0.73
	2006	65	22.4	120	20.2	185	20.9	
	2007	62	21.3	118	19.8	180	20.3	
	2008	49	16.8	120	20.2	169	19.1	
	2009	49	16.8	107	18.0	156	17.6	
	Total	291	32.8	595	67.2	886	100.0	
Age (yr)	0 – 19	260	89.9	505	86.0	765	87.3	0.09
	≥ 20	29	10.1	82	14.0	111	12.7	
	Total	289	33.0	587	77.0	876	100.0	
Marital status	Unmarried	255	98.8	470	94.7	725	96.1	0.02
	Married	2	0.8	21	4.3	23	3.1	
	Separated / Widow	1	0.4	5	1.0	6	0.8	
	Total	258	34.2	496	65.8	754	100.0	
Educational level	Illiterate	7	3.4	28	7.6	35	6.1	0.06
	Literate	58	28.2	88	24.0	146	25.5	
	Basic education	114	55.3	207	56.4	321	56.0	
	High school	26	12.6	35	9.6	61	10.6	
	higher education	1	0.5	9	2.4	10	1.7	
	Total	206	35.9	367	64.1	573	100.0	

A small number of medical reports contained information regarding the age of the aggressor, but reveal that the majority had 20 years or more (69.2%) with mean of 27.4 years ( $\pm 11.0$ ), minimum of 16 years and maximum 50 years. When evaluating the relationship between victim and sex offender, in 84.2% of cases the perpetrators were known to the victims, being the current partner responsible for 31.8% of cases. Sex offenders with blood ties (biological father, uncle and brother) totaled 5.7% of cases. Regarding the number of offenders, the perpetrator acted alone in 93.8% of cases (Table 2).

Among the cases where the number of attackers was multiple, 12 cases involved two perpetrators, one involved three perpetrators and one case involved five perpetrators. An association was observed between rape and the age of the sex offender ( $P = 0.03$ ), type of relationship ( $P = 0.001$ , PR = 2.32 (1.62 to 3.33)) and known offenders ( $P = 0.001$ ).

Information concerning the site of rape occurrence was not present in 76.4% of medical reports. In situations in which the site of rape occurrence was identified, most rape occurrences were recorded in the home environment ( $n = 35$ ; 49.3%), and eighteen cases (51.4%) were recorded in the victim's residence and seventeen (48.6) were recorded in the aggressor's residence. Regarding the date of occurrence, 70.5% of cases had 20 days or more from the completion of the forensic examination and 80.9% of victims were virgins before the rape. The presence of violence during the rape practice was found in 72.3% of cases, but physical injuries were identified in only 5.2% of victims.

In only 34.8% of occurrences, collection of material for DNA testing was performed (Table 3). There was an association between rape and date of occurrence ( $P = 0.001$ ), previous virginity ( $P = 0.001$ ) and violence during practice ( $P = 0.001$ ).

**Table 2:** Association between rape and variables related to aggressor

Variables		Yes		No		Total		P-value
		n	%	n	%	n	%	
Age of offenders	16-19 years	4	30.8	12	70.4	16	53.3	0.03
	≥ 20 years	9	69.2	5	29.4	14	46.7	
	Total	13	43.3	17	56.7	30	100.0	
Relationship	Known	245	84.2	414	69.6	659	74.4	0.001
	Unknown	46	15.8	181	30.4	227	25.6	
	Total	291	32.8	595	67.2	886	100.0	
Known	Father	10	4.1	37	8.9	47	7.1	0.001
	Stepfather	13	5.3	50	12.1	63	9.6	
	Uncle	2	0.8	17	4.1	19	2.9	
	Brother	2	0.8	8	1.9	10	1.5	
	Neighbor	6	2.4	29	7.0	35	5.3	
	Ex - mate	6	2.4	11	2.7	17	2.6	
	Current partner	78	31.8	36	8.7	114	17.3	
	Other	128	52.2	226	54.6	354	53.7	
	Total	245	37.2	414	62.8	659	100.0	
	Offenders	Single	240	93.8	427	93.8	667	
Multiple		16	6.2	28	6.2	44	6.2	
Total		256	36.0	455	64.0	711	100.0	

**Table 3:** Association between rape and variables related to sex offenders

Variables		Rape				Total		P-value
		Yes		No		n	%	
		n	%	n	%	n	%	
Aggression site	Home	35	49.3	75	54.3	110	52.6	0.22
	Public road	9	12.7	8	5.8	17	8.1	
	Other	27	38.0	55	39.9	82	39.2	
	Total	71	34.0	138	66.0	209	100.0	
Probable date	Recent	83	29.5	15	60.0	98	32.0	0.001
	> 20 days	198	70.5	10	40.0	208	68.0	
	Total	281	91.8	25	8.2	306	100.0	
Previous virginity	Yes	178	80.9	81	15.9	259	35.5	0.001
	No	34	15.5	69	13.6	103	14.1	
	Is virgin	8	3.6	359	70.5	367	50.3	
	Total	220	30.2	509	69.8	729	100.0	
Violence during practice	Yes	112	72.3	23	25.8	135	55.4	0.001
	No	43	17.7	66	74.2	109	44.6	
	Total	155	63.5	89	36.5	244	100.0	
Body injuries	Yes	15	5.2	23	3.8	38	4.3	0.37
	No	276	94.8	572	96.2	848	95.7	
	Total	291	32.8	595	67.2	886	100.0	
Collection of material for DNA testing	Yes	24	34.8	65	40.4	89	38.7	0.42
	No	45	65.2	96	59.6	141	61.3	
	Total	69	30.0	161	70.0	230	100.0	

## Discussion

The data presented here demonstrate that victims of violence do not have a homogeneous profile and differ regarding the sociodemographic characteristics and those related to the event. Of the 886 analyzed cases of sexual violence, the existence of rape was found in about one third of victims, a result higher than that reported among American women (12). The divergence between results is due to the collection site of studies, since while this research was conducted at the Institute of Forensic Medicine and Dentistry, institution for which Brazilian victims of sexual violence are referred, another study was carried out in a hospital unit. About 6.8 million cases of rape and physical assault in the United States are estimated each year, with 2.6 million resulting in physical injuries (9).

When the perpetrator is known to the victim, the complaint is inhibited, reflecting a false prevalence. Women are afraid of reprisals and feel ashamed, humiliated and guilty (13). The lack of information; however, prevents measuring the frequency of this fact, thereby contributing to under-reporting (14).

Most of the victims were 19 or younger, a result similar to that observed in the United States, with predominance of adolescent victims aged from 12 to 17 yr (5, 9). Another study conducted in a U.S. hospital revealed mean age of 26.2 years (9), which is higher than that found in this work. Brazilian researchers found that the prevalence of victims aged under 19 yr ranges from 47.6 (16) to 77% (15). The prevalence of this crime in this age group may be related to the greater consumption of alcohol and illicit drugs, increased frequency of relationships with others, greater exposure to domestic violence, greater public exposure and finally the earlier sexual development primarily driven by the media (17).

Most victims had low educational level, a result similar to that seen in the United States (12) and Brazil (16). In this research, predominance of young victims, mostly students was found, corroborating the findings of other Brazilian authors (16). Aggressions against women are mainly committed by intimate or known people (8). In this study,

84.2% of offenders were known to the victims, with predominance of the current partner, corroborating previous findings (5,11,14,16). In the United States, more than half of women reported that at some point in their lives, they had been victims of physical aggression or sexual assault by their current partners (12). It could be inferred that while father, stepfather, uncles and brothers are the most frequent aggressors against children, spouse or intimate partners are the most frequent perpetrators against adult women.

In 6.2% of cases, more than one perpetrator participated in the violence, which is in accordance with literature that reports a low frequency of multiple aggressors (11). In this study, the number of offenders varied from two to five. Psychological sequelae may be more severe when the crime involves multiple perpetrators (1).

A significant number of cases of rape occurred at home, both the victim and the aggressor, diverging from data described in literature, where most cases of sexual violence occurs on public roads (16). Women attacked at the domestic environment are those that least denounced violence to authorities, since most are abused by known people (8).

Many victims of this research had suffered aggression for more than 20 days from the date of the forensic medical examination. The literature reports that most women present complaint within 72 h after sexual violence (5). However, if the aggressor is known to the victim, it takes longer to seek emergency care. On the other hand, when the victim does not know the aggressor, the seek for health services is faster, as identified by Brazilian researchers who reported that two thirds of women sought health services within 24 h after sexual violence and emergency care was performed within the first 72 h in 87.6% of women (16).

More than two thirds of the victims reported the use of force - (fists or choking, knife, gun, restraints, blindfold, or other means), confirming previous findings (16). When violence involves children, usually there is use of physical force, but among adolescent and adult women, sexual violence requires physical violence because victims have greater physical size and strength to resist. Physical injuries confirm violence during practice,



thus becoming an important material evidence for criminal cases, but their absence does not eliminate the possibility of crime (18). In this study, few victims exhibited physical injuries resulting from sexual abuse during forensic examination, which was also observed by other authors (11). However, this fact may be related to the time elapsed since the sexual violence, which in most cases, the victims were examined for sexual violence only after 20 days. Another possible explanation for the absence of injuries is the use of weapons for coercion, preventing occurrence of fights with physical signs of resistance (14).

Research conducted in South Africa showed that the confirmation of sexual violence is more common when there is presence of physical injuries and when DNA collection is performed (4). In this study, the number of victims who had material collected for DNA testing was extremely low. It was not possible to identify why this occurred; however, it may be due to the fact that there were few victims who immediately sought the Institute of Forensic Medicine for collecting material.

This research had several limitations. The first is the fact that it was developed in a unique Institute of Forensic Medicine of a single city. Another limitation was the large number of medical reports with missing information (unfilled, unanswered or inconclusive); however, the findings described here faithfully depict the characteristics of perpetrators and women victims of sexual violence in Campina Grande, Brazil; being extremely important for public policy planning and resource allocation in public safety.

## Conclusion

Over one third of women were victims of rape, predominantly adolescents, unmarried and with low educational level. The aggressors were known to the victims, and acted alone in most situations, making use of physical violence.

## Ethical considerations

Ethical issues (Including plagiarism, informed consent, misconduct, data fabrication and/or fal-

sification, double publication and/or submission, redundancy, etc.) have been completely observed by the authors.

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The authors declare that there is no conflict of interest.

## References

1. Blake M, Drezett J, Vertamatti MA, Adami F, Valenti VE, Paiva AC, Viana JM, Pedroso D, Abreu LC (2014). Characteristics of sexual violence against adolescent girls and adult women. *BMC Women's Health*, doi:10.1186/1472-6874-14-15.
2. Krug EG, Dahlberg LL, Mercy JA, Zwi AB, Lozano R (2002). *World report on violence and health*. Geneva, World Health Organization.
3. Brasil. Lei no 12.015, de 7 de agosto de 2009. *Diário Oficial da União* 2009.
4. Jewkes R, Christofides N, Vetten L, Jina R, Sigsworth R, Loots L (2009). Medico-legal findings, legal case progression, and outcomes in South African rape cases: retrospective review. *PLoS Med*, doi: 10.1371/journal.pmed.1000164.
5. McCall-Hosenfeld JS, Freund KM, Liebschutz JM (2000). Factors associated with sexual assault and time to presentation. *Prev Med*, 48(6):593-95.
6. Silva IV (2003). Violence against woman: clients of emergency care units in Salvador. *Cad. Saude Publica*, 19(2):263-72.
7. Shanks L, Schull MJ (2000). Rape in war: the humanitarian response. *CMAJ*, 163(9):1152-56.
8. Oshikata CT, Bedone AJ, Faúndes A (2005). Emergency care for women following sexual assault: characteristics of women and six-month post-aggression follow-up. *Cad. Saude Publica*, 21(1):192-99.
9. Sommers MS, Zink TM, Fargo JD, Baker RB, Buschur C, Shambley-Ebron DZ, Fisher BS (2008). Forensic sexual assault examination and genital injury: is skin color a source of health disparity? *Am J Emerg Med*, 26(8):857-66.
10. Vickerman KA, Margolin G (2009). Rape treatment outcome research: empirical findings and

- state of the literature. *Clin Psychol Rev*, 29(5):431-48.
11. Avegno J, Mills LD (2009). Sexual assault victims in the emergency department: analysis by demographic and event characteristics. *J Emerg Med*, 37(3):328-34.
  12. Malcoe LH, Duran BM, Montgomery JM (2004). Socioeconomic disparities in intimate partner violence against Native American women: a cross-sectional study. *BMC Med*, 2:1-14.
  13. Villela WV, Lago T (2007). Advances and challenges in treatment for female victims of sexual violence. *Cad Saude Publica*, 23(2):471-75.
  14. Santos SS, Dell'Aglio DD (2008). Understanding the mothers of children who are victims of sexual abuse: cycles of violence. *Estud Psicol*, 25:595-606.
  15. Oliveira PM, Carvalho MLO (2006). Perfil das mulheres atendidas no programa municipal de atendimento à mulher vítima de violência sexual em Londrina-PR e as circunstâncias da violência sexual sofrida: período de outubro de 2001 a agosto de 2004. *Semina Cienc Biol Saude*, 27(1):3-11.
  16. Facuri CO, Fernandes AMS, Oliveira KD, Andrade TS, Azevedo RCS (2013). Sexual violence: a descriptive study of rape victims and care in a university referral center in São Paulo State, Brazil. *Cad Saude Publica*, 29(5):889-98.
  17. Irwing CE, Rickert VI (2005). Coercive sexual experience during adolescence and young adulthood: a public health problem. *J Adolesc Health*, 36(5):359-61.
  18. Reis JN, Martin CCS, Ferriani MGC (2004). Female victims of sexual abuse: coercive methods and non-genital injuries. *Cad Saude Publica*, 20(2):465-73.