

ORIGINAL ARTICLE

Sexual violence during pregnancy: cross-sectional study with women in puerperium

Mariana Pércia Namé de Souza Franco^a, Fernanda Diniz e Silva^a, Ana Luíza de Oliveira Assis^a, Heloisa Fracalossi Frigini^a, Maria Aparecida dos Santos Traverzim^a, Jefferson Drezett^{b,c}



^aDepartamento de Obstetrícia e Ginecologia - Conjunto Hospitalar do Mandaqui. São Paulo, Brazil.

^bDepartamento de Saúde, Ciclos de Vida e Sociedade - Faculdade de Saúde Pública da USP. São Paulo, Brazil.

^cDisciplina de Saúde Sexual, Reprodutiva e Genética Populacional - Faculdade de Medicina do ABC. Santo André, Brazil.

Corresponding author
marianapercia@gmail.com

Manuscript received: may 2021
Manuscript accepted: december 2021
Version of record online: october 2022

Abstract

Introduction: sexual violence during pregnancy is a serious violation of human rights and reproductive rights. Its prevalence is variable and multifactorial, depending on the analyzed territory and sociocultural and economic factors, requiring permanent monitoring.

Methods: a cross-sectional study conducted at the Mandaqui Hospital, São Paulo, Brazil. The Abuse Assessment Screen (AAS) was applied to 350 puerperium women, with the outcome of suffering or not sexual violence during pregnancy, with data collected between September and December 2021. Sociodemographic and reproductive data were considered. We used an urn technique, with pre-coded data analyzed in EpiInfo® by Pearson's Chi-square and Mann Whitney test, adopting $p < 0.05$ and 95% CI. Research approved by the Research Ethics Committee, CAAE No. 50580421.5.0000.5551.

Results: we found eight cases of sexual violence (2.3%) and sample loss of 18.9%. Women who suffered sexual violence reported more physical violence in the last 12 months (25.0% x 6.1% - $p = 0.033$, OR/CI 0.19: 0.03-1.03) and fear of the most frequent intimate partner (25.0% x 3.5% - $p = 0.002$, OR/CI 0.10: 0.01-0.59), but we did not find a difference in the history of suffering violence before the age of 15 and by the partner throughout life. There was no difference in age, schooling, race/color, union, income and work. The same occurred for reproductive aspects, with no difference regarding the occurrence of prematurity, high-risk pregnancy, reproductive planning and tobacco/alcohol use during pregnancy.

Conclusion: the prevalence of sexual violence during pregnancy was lower than in other Brazilian studies and populations from other countries. Women with sexual violence during pregnancy face a daily life of fear and more frequent physical violence. The high history of suffering violence before the age of 15 and experiencing physical or emotional violence by the intimate partner can aggravate the situation. The high history of violence and fear of the partner may have contributed to eventual understatement.

Keywords: sex offenses, violence against woman, pregnant women, crime victims, intimate partner violence.

Suggested citation: Franco MPNS, Silva FD, Assis ALO, Frigini HF, Traverzim MAS, Drezett J. Sexual violence during pregnancy: cross-sectional study with women in puerperium. *J Hum Growth Dev.* 2022; 32(3):331-340. DOI: <http://doi.org/10.36311/jhgd.v32.13786>

Authors summary

Why was this study done?

This study derives from the Final Paper for the Specialization Course in Gynecology and Obstetrics developed by Mariana Pércia Namé de Souza Franco and Fernanda Diniz e Silva at Complexo Hospitalar do Mandaqui, São Paulo, Brazil. The interest in gender violence is present in their academic training and the topic of sexual violence against women during pregnancy, in particular, stems from observations made during clinical activities and professional training.

What did the researchers do and find?

The administration of the Abuse Assessment Screen (AAS), an instrument for screening for violence against women during pregnancy, found no sociodemographic or reproductive factors associated with sexual violence in pregnancy. However, women who experienced sexual violence in pregnancy experienced more physical violence in the past year and more frequent intimate partner fear.

What do these findings mean?

We consider that our findings contribute to the indicators of high prevalence of gender violence and to increase the visibility of the phenomenon in the country, highlighting the need for health services to identify and address sexual violence during pregnancy.

INTRODUCTION

Violence against women is recognized as a serious human rights violation and an important public health issue. In 2013, the World Health Organization (WHO) estimated the global prevalence of physical and sexual violence against women by intimate partners at 30.0%, and the prevalence by non-partner perpetrators at 7.2%. Intimate partner violence showed variable distribution, with 24.6% in the Western Pacific, 25.4% in Europe, 29.2% in the Americas, 36.6% in Africa, and 37.7% in Southeast Asia¹.

Several factors have been strongly related to gender-based violence, such as low socioeconomic status, the woman or her partner's lower schooling, scarce social support, and financial or emotional dependence^{2,3}. In this context, violence during pregnancy is defined by the threat or act of physical, sexual or psychological violence against the pregnant woman¹. In developing countries with strong social inequality, public health issues and higher gender inequity, the prevalence of violence during pregnancy is elevated, varying between 3.8% and 58.6%⁴⁻⁶.

Violence during pregnancy is an important cause of suicide and maternal mortality¹, being associated with a higher risk of abortion⁷, fetal death, prematurity, low weight upon birth⁸, premature membrane rupture⁹, and neonatal death¹⁰. Symptoms of depression and Post-Traumatic Stress Disorder are frequent¹¹. These women become exposed to continuous emotional stress, which affects the perinatal outcome and alters behaviors, possibly reverberating in the nutritional state and in health care measures.¹² Women who suffer violence during pregnancy are more prone to initiate the prenatal care belatedly¹³, have higher chances of taking this process in an unsatisfactory manner^{14,15}, and of interrupting breastfeeding precociously¹⁶. During prenatal period there is a higher risk of urinary tract infection and genital bleeding¹⁷.

Pregnancy seems to be a moment in women's life cycle in which violence can take different outlines. Some studies report higher psychological violence and lower physical and sexual violence¹⁸, while other studies observe an increase in the risk of suffering more frequent and more serious physical violence, or of assaults starting at this stage^{19,20}.

It is estimated that the prevalence of sexual violence during pregnancy (SVP) oscillates between 0.9% and 28.0%²¹⁻²⁶. In these cases, women end up subjected

to additional harm, such as genital injuries and sexually transmitted infections, higher sexual suffering, and more frequent mental health issues. In Brazil there is no national inquiry or population-based survey about physical, psychological or sexual violence during pregnancy. The majority of studies involves puerperal women assisted in public maternity hospitals and addresses physical violence during pregnancy by the intimate partner, with prevalence between 5.1% and 18.2%. For SVP, they estimate values from 2.1% to 19.1%^{9,11,31}. Thus, the aim of this study is to identify the prevalence of SVP and its sociodemographic and reproductive characteristics among women seen at a reference hospital in the city of São Paulo.

METHODS

Study design

Cross-sectional study conducted at the Obstetrics and Gynecology Department of Mandaqui Hospital, a reference hospital for women's health care in the Northern region of the city of São Paulo, Brazil. The hospital is managed by the São Paulo State Health Secretariat and financed by the Unified Health System, with free access to the population, performing between 150 and 200 deliveries per month.

Study population

The study population was composed of women aged 18 years or older who were within 72 hours of puerperium, with newborns weighing more than 500 grams. We excluded adolescents under 18, women with intellectual disabilities who were unable to answer the questions, and women who had had an abortion.

Study Variables and Outcomes

The outcome was whether women declared they had experienced sexual violence during pregnancy (SVP), being allocated into two groups. We analyzed the sociodemographic variables of age, education, race/color, relationship status, and work or occupation. Education, race/color, and relationship status were categorized according to the recommendation of the Brazilian Institute of Geography and Statistics³². The analysis of schooling grouped the women into low or no schooling, with 9 years or less of formal education. The race/color variable analyzed black women, the sum of brown and dark-

skinned women, against non-black women. The marital status grouped the women as in a relationship or not in a relationship.

Reproductive aspects included pregnancy planning, prematurity, risk pregnancy, and use of alcohol or tobacco during pregnancy. The history of experienced violence considered the reported cases of violence before the age of 15, physical or emotional violence by an intimate partner or acquaintance, the occurrence of physical violence in the last 12 months, and the reported fear of the intimate partner.

Data collection instruments and procedures

We adopted the validated Portuguese version of the Abuse Assessment Screen (AAS), a specific instrument for screening violence against women during pregnancy. The AAS was developed by the Nursing Research Consortium on Violence and Abuse, in 1989, with semantic equivalence and validation of the Portuguese version³³. The puerperal women answered the AAS and the sociodemographic and reproductive questions manually, in a printed form without identification, deposited in a sealed urn. This step was conducted in closed and private rooms from September to December 2021.

A researcher was available to help upon request, without interfering or accessing the participants' answers. The urn was opened and the forms were accessed after the sample was completed. Due to the possibility of adverse emotional events caused by the remembrance of violence, psychological and social care was ensured for the women who requested it.

Sample size calculation

The calculation of the sample size adopted the average prevalence of 20% of violence against women during pregnancy, estimated in 2005 by the World Health Organization (WHO)³, with an absolute error of 5%, a significance level of 5%, and statistical power of 80%, resulting in a robust sample of 350 women.

Statistical analysis

The interviews were pre-coded and formatted into Excel[®], version 2010, and the data were analyzed in EpiInfo[®], version 7.2.3.1. We built frequency tables relating suffering or not suffering sexual violence during pregnancy and the study variables. We applied the Pearson's chi-square test for contingency and association tables, and the Mann Whitney test for independent samples. We set the value of $p < 0.05$ and Confidence Interval (CI) of 95%.

Ethical Aspects

All participants signed an Informed Consent Form and had the opportunity to ask questions and obtain clarification. At the end of participation, all women received written information about available governmental protection and treatment agencies for women in situations of violence.

We followed the resolutions no. 196/1996 and No. 466/12 of the National Health Council on the ethical aspects of research with human beings. No patient was identified in any way. The information was processed confidentially in a computer with password and access restricted to the researchers. The study was submitted to the Research Ethics Committee of Mandaqui Hospital, with approval CAAE no. 50580421.5.0000.5551.

RESULTS

A total of 432 puerperal women were invited to participate in the study. There was refusal from 82 women, resulting in a loss of 18.9% and final sample of 350 women. We found eight cases of SVP, a prevalence of 2.3%. Among women who did not experience SVP, age ranged from 18 to 46 years, mean 32.2 ± 6.26 years and median 26 years. Among those who suffered SVP, age ranged from 19 to 41 years, mean 28.3 ± 9.85 years and median 23 years, with no significant difference. We observed no difference for the sociodemographic variables of age, income, low education, race/color, relationship and work. As for reproductive aspects, in both groups most women stated that the pregnancy was unplanned and without difference regarding the occurrence of prematurity, risk pregnancy or alcohol/tobacco use (Table 1).

Table 1: Sociodemographic and reproductive characteristics of 350 women in puerperium according to the statement of having or not suffered sexual violence during pregnancy, Mandaqui Hospital, São Paulo, Brazil, 2021

	Sexual violence no (n=342)		Sexual violence yes (n=8)		Total (n=350)		OR (CI 95%)	p*
	n	%	n	%	n	%		
INCOME **								
< 1	174	51.1	6	75.0	180	51.4	0.34 (0.06-1.73)	0.177
1 – 2	140	40.9	2	25.0	142	40.6	2.07 (0.41-10.45)	0.364
> 2	28	8.0	0	0	28	8.0	-	0.398
POOR EDUCATION ***								
Yes	73	21.3	3	37.5	76	21.7	0.45 (0.10-1.93)	0.273
No	269	78.7	5	62.5	274	78.3		
RACE/COLOR								

Continuation - Table 1: Sociodemographic and reproductive characteristics of 350 women in puerperium according to the statement of having or not suffered sexual violence during pregnancy, Mandaqui Hospital, São Paulo, Brazil, 2021

	Sexual violence no (n=342)		Sexual violence yes (n=8)		Total (n=350)		OR (CI 95%)	p*
	n	%	n	%	n	%		
Black	216	63.1	5	62.5	221	63.1	1.02 (0.24-4.37)	0.969
Non-black	126	36.9	3	37.5	129	36.9		
Relationship status								
Yes	236	69.4	3	37.5	239	68.2	3.71 (0.87-15.81)	0.058
No	106	30.6	5	62.5	111	31.8		
Work								
Yes	154	45.0	4	50.0	158	45.1	0.81 (0.20-3.32)	0.780
No	188	55.0	4	50.0	192	54.9		
Planned pregnancy								
Yes	121	35.4	2	25.0	123	35.1	1.64 (0.32-8.26)	0.543
No	221	64.6	6	75.0	227	64.9		
Risk pregnancy								
Yes	109	31.9	3	37.5	112	32.0	0.77 (0.18-3.32)	0.735
No	233	68.1	5	62.5	238	68.0		
Use of alcohol and tobacco								
Yes	36	10.5	0	0	36	10.3	-	0.332
No	306	89.5	8	100.0	314	89.7		
Prematurity								
Yes	32	9.4	1	12.5	33	9.4	0.72 (0.08-6.06)	0.736
No	310	90.6	7	87.5	317	90.6		

OR: Odds Ratio. CI: Confidence interval. * Pearson's chi square test. ** Minimum wage of US\$ 211.94 per month (july, 2002).

In the history of violence (Table 2), there was no difference for violence before the age of 15 and for physical or emotional violence by an intimate partner or acquaintance in both groups. We observed a significant difference for physical violence in the last 12 months,

more frequent in women with SVP, but no difference regarding the perpetrator of this violence or number of assaults. Fear of the partner was more frequent among those who suffered SVP.

Table 2: History of violence among 350 women in puerperium according to the declaration of having or not suffered sexual violence during pregnancy, Mandaqui Hospital, São Paulo, Brazil, 2021

	Sexual violence no (n=342)		Sexual violence yes (n=8)		Total (n=350)		or (ci 95%)	p*
	N	%	n	%	n	%		
Violence before the age of 15								
Yes	63	18.4	2	25.0	65	18.6	0.67 (0.13-3.43)	0.636
No	279	81.6	6	75.0	285	81.4		
Physical or emotional violence by an intimate partner or acquaintance								
Yes	107	31.3	4	50.0	111	31.7	0.45 (0.11-1.85)	0.260
No	235	68.7	4	50.0	239	68.2		

Continuation - Table 2: History of violence among 350 women in puerperium according to the declaration of having or not suffered sexual violence during pregnancy, Mandaqui Hospital, São Paulo, Brazil, 2021

	Sexual violence no (n=342)		Sexual violence yes (n=8)		Total (n=350)		or (ci 95%)	p*
	N	%	n	%	n	%		
Physical violence in the last 12 months								
Yes	21	6.1	2	25.0	23	6.6	0.19 (0.03-1.03)	0.033
No	321	93.9	6	75.0	327	93.4		
Author of violence								
Intimate partner	16	76.2	2	100.0	18	78.3	-	0.435
Stranger	5	23.8	0	0	5	21.7		
Number of aggressions								
One	6	28.6	0	0	6	26.1	-	0.379
Multiple	15	71.4	2	100.0	17	73.9		
Fear of the intimate partner								
Yes	12	3.5	2	25.0	14	4.0	0.10 (0.01-0.59)	0.002
No	330	96.5	6	75.0	336	96.0		

OR: Odds Ratio. CI: Confidence interval. * Pearson's chi square test.

DISCUSSION

In this study, the prevalence of SVP of 2.3% was similar to that found in the country by Santos *et al.* (2010)⁹, with 2.1% in Rio de Janeiro, and by Durand and Schraiber (2007)³, with 3.1% in São Paulo. But it was lower than that observed in São Paulo by Ferri *et al.* (2007)³³, with 5.0%; by Okada *et al.* (2015)¹¹, with 4.9%; in Campinas by Audi *et al.* (2008)¹⁴, with 6.5%; and in Rio de Janeiro by Moraes and Reichenheim (2002)³⁰, with 9.9%. Compared with other countries, our result was close to that of Italy, verified by Bo *et al.* (2020)²⁰, with 2.6%, and in Uganda, by Kaye *et al.* (2006)²⁵, with 2.7%. Higher prevalences have been described in Turkey, of 5.9% (Gürkan *et al.*, 2020)²⁹; in Nicaragua, of 7.0% (Valladares *et al.*, 2005)²²; in China, of 9.4% (Leung *et al.*, 1999)²⁴; in Rwanda, 9.7% (Rurangirwa *et al.*, 2017)³⁵; in the UK, 10.0% (Johnson *et al.*, 2003)²³; in Iran, 12.5% (Naghizadeh *et al.*, 2021)³⁶; and in Malawi, 28.0% (Chasweka *et al.*, 2018)²⁶.

The prevalence of SVP we found was lower than that observed in most national and international studies. Confidentiality and privacy during the application of research instruments are fundamental to avoid embarrassment or fear of revealing violence^{5,9}. By adopting the urn and conducting the activity in a reserved room, without recording, without a companion, and without direct verbal responses to an interviewer, we sought to reduce underreporting of violence. However, we recognize the possibility, either by the eventual perception of insufficient care for some women, by sociocultural limitations to recognize violence, or by less explicit forms of coercion and intimidation.

In this study, the mean age of women with SVP (28.3±9.85 years) did not differ from women who did not experience violence (32.2±6.26 years). Our choice not to include adolescents under the age of 18 made it difficult to compare with other studies that included younger women. In the literature, being underaged or of younger age is relevant to experiencing violence during pregnancy. Adolescent girls can start suffering violence after disclosing the pregnancy, either by the family or by the intimate partner.¹⁹ Studies such as that of Moraes and Reichenheim (2002)³⁰, of Moraes *et al.* (2010)¹⁵, and of Rurangirwa *et al.* (2017)³⁵ associated the younger age of the woman who suffered violence during pregnancy, while Bessa (2014)³¹ found no difference between adolescents and adults.

Unlike many studies, we did not find a relationship between low education and higher risk of SVP, as well as Santos *et al.* (2010)⁹, Khosla *et al.* (2005)⁴, Bessa (2014)³¹, and Okada *et al.* (2015)¹¹. We also found no difference among women according to income and work, unlike Bessa (2014)³¹, who found those who suffered SVP to have a lower income, but not regarding work. Few studies such as that of Cervantes-Sánchez *et al.* (2016)³⁷ found higher levels of occupation among women in situations of violence during pregnancy. The evidence, however, is compelling regarding social inequalities, poverty, low education, financial dependence, and unemployment as factors associated with domestic violence during pregnancy^{3,8,11,22,26,30}.

The racial issue is described as relevant to suffering violence in pregnancy and unfavorable for black women

and racial-ethnic minorities^{38,39}. Garcia and Silva's (2014)⁴⁰ study of 86 Brazilian emergency services found that almost 70.0% of the cases of violence involved black women. Femicide in Brazil, an extreme expression of violence against women, is also frequent among black women. In the period from 2016 to 2018, Monteiro et al. (2021)⁴² found a rate of 12.5/100,000 deaths among black women, while the rate among white women was almost half, at 5.9/100,000. Although we recognize the greater vulnerability of black women to suffer violence, this variable was not related to SVP in this study, as in the findings of Bessa (2014)³¹.

The history of physical violence in the past 12 months was significantly higher among women with SVP (25.0%), all of whom reported the intimate partner as the aggressor. This value was notably higher than that verified in our midst by Ferri et al. (2007)³⁴, of 14.6%; by Santos et al. (2010)⁹, of 9.4%; by Fiorotti et al. (2018)⁴², of 7.6%; by Menezes et al. (2003)¹², of 13.1%; and by Durand and Schraiber (2007)³, of 13.5%. Only the study by Moraes and Reichenheim (2002)³⁰ showed higher values, with 33.8%.

The evidence is consistent about the role of the intimate partner in violence against women, including during pregnancy. However, some studies point out that women without a partner are more likely to suffer violence in pregnancy^{42,44}. In this aspect, it is possible that the protective factor of the relationship is associated with common values between the woman and her partner in family formation and relationships⁴⁴. In this study, we found no relationship between the relationship status of the woman and suffering SVP, as reported by Bessa (2014)³¹. We infer that the statement of not having a relationship may be a subordinate category, being more important to have an intimate partner or not.

We also observed no difference in the statement of suffering physical or emotional violence by the intimate partner or another close person. However, the frequency of this situation showed considerable magnitude, reaching 50.0% of women who suffered SVP and 31.3% of women who did not suffer SVP, reinforcing the role of the intimate partner in violent gender relations. To some extent, this finding translates into fear of the intimate partner in women who suffered SVP (25.0%), almost seven times more frequent than in women who did not suffer SVP (3.5%). Our result showed similarity with other Brazilian studies, such as that of Durand and Schraiber (2007)³, with 26.5%, and of Audi et al. (2008)¹⁴, with 19.1%. It was also close to the results in Uganda (24.8%)²⁵, the United Kingdom (27.0%)²³, and Nicaragua (32%)²². Few studies indicated higher values, such as that of Moraes and Reichenheim (2002)³⁰, with 78.3% in Rio de Janeiro. Lower results were found in China (3.6%)²⁴, Canada (1.5%)⁴⁵, and Rio de Janeiro (5.4%)⁹. However, most of these studies included women who experienced violence during pregnancy and did not specifically address SVP, which limits comparisons.

We found no difference in the antecedent of suffering violence before age 15 in the women studied. Even so, the data found, 18.4% for women who did not suffer SVP and 25.0% for those who suffered SVP, should

be considered for reinforcing the evidence of adolescence as a stage of vulnerability to suffer violence. Moreover, the data corroborates the understanding that many women experience continuous and recurrent violence throughout their lives. In 2019, Brazilian public security institutions recorded almost 60.0% of cases of sexual violence among minors under 13 years of age⁴⁶. Another Brazilian study found almost 25% of cases of sexual violence among adolescents aged 12 to 17 years⁴⁷.

The high values we found in both groups for physical violence in the past year, past partner violence, and fear of the intimate partner contrast with the low prevalence of SVP we found. We believe it is reasonable to assume a synergistic and impactful effect of these forms of gender violence to inhibit women from declaring SVP, particularly for fear of reprisal.

Adverse perinatal outcomes, such as prematurity and low birth weight, may be related to neuroendocrine factors, as suggested by Talley et al. (2006)⁴⁸, who found a significant linear relationship in beta-endorphin and adrenocorticotrophic hormone levels among women who experienced violence during pregnancy. We did not find a higher frequency of prematurity in women who suffered SVP, unlike the results of Santos et al. (2010)⁹, and Belay et al. (2019)⁴⁹.

Unplanned pregnancy is described in our midst by Okada et al. (2015)¹¹ and by Santos et al. (2010)⁹ as a risk factor for suffering violence during pregnancy. Although the lack of reproductive planning was expressive among women who suffered SVP (75%), we found no difference with women who did not suffer SVP (64.6%). This finding does not seem to differ from the overall reproductive situation of Brazilian women, even with the current high prevalence of modern contraceptive methods and the decreasing fertility rate⁵⁰. We also found no relationship between suffering SVP and higher alcohol/tobacco consumption, or high-risk pregnancy, different from what was observed by Santos et al. (2010)⁹.

Other factors have been associated with violence during pregnancy, such as the woman's religion^{11,42,51}, being single or having children with another partner⁴³, having an early relationship before the age of 18⁵², or living in urban areas³⁵. As for the intimate partner, alcoholism, low education⁵³, young age¹⁴, use of psychoactive drugs^{2,14}, infidelity⁵², possessiveness⁵⁴, or doubt about the paternity of the pregnancy in progress⁵⁴ are indicated. The generational issue arises for women who experience domestic violence before the age of 15, with a higher risk of experiencing violence during pregnancy as adults^{12,14}. Although we did not explore these aspects, we recognize their importance for future studies.

Considering the characteristics of the Unified Health System in Brazil, public prenatal care services are privileged spaces to identify women in situations of violence during pregnancy⁹. However, women exceptionally disclose violence due to cultural and gender issues, or due to fear and embarrassment, which contributes to restrict the visibility of the phenomenon². In addition, violence usually leaves no evidence on physical examination that allows health professionals to identify or suspect its occurrence⁹. Limitations such as these require

public health policies to adopt new ways of embracing and recognizing the problem.

At the same time, cases of violence during pregnancy should have the perpetrators identified and held accountable, important measures to interrupt the cycle of domestic violence and prevent or reduce harm to women. In Brazil, health professionals have a legal duty with this issue, according to Law No. 13,931 of 2019, with observance of the ethical-legal principles of secrecy and confidentiality⁵⁵. At the same time, public health policies should incorporate and offer programs and activities for the prevention of violence, both for intimate partners and family members involved in aggression against the pregnant woman.

Among the limitations of this study, we understand that part of the variables analyzed is subject to confounding factors, to the extent that clinical and sociodemographic aspects are interrelated with the aggravations of violence. Moreover, we admit the possible occurrence of a bias of information and memory about violence during pregnancy, since the research was conducted in the puerperium, which could have affected the reliability of the data and the prevalence¹². Considering violence during pregnancy a multifactorial phenomenon, we must be careful not to generalize the results for populations in different cultural, economic and sociodemographic situations. This study was conducted during the COVID-19 pandemic, which may, to some extent, have influenced the results, limiting the comparison with studies conducted outside this scenario.

CONCLUSION

The prevalence of SVP was lower than that observed in other studies with Brazilian women and populations from other countries. We found no association between SVP and sociodemographic and reproductive factors, but the history of suffering physical violence in the last 12 months and of being afraid of the intimate partner were more frequent in women with SVP, with values higher than those reported by most of the literature. The antecedent

of experiencing violence before age 15 and experiencing physical or emotional violence by the intimate partner proved notably high, although we identified no difference between women who did or did not experience SVP. The data suggest that women who experienced SVP are involved in an unfavorable continuum of gender-based violence.

Author contribution

M.P.N.S.F., F.D.S., and J.D., designed the research question. M.P.N.S.F., F.D.S., A.L.O.S., and H.F.F., conducted the interviews. J.D., analyzed the data and performed the statistical analysis. M.P.N.S.F., F.D.S., J.D., and M.A.S.T., interpreted the results. J.D., designed the tables. M.P.N.S.F., F.D.S., J.D., and M.A.S.T., wrote the manuscript. J.D., and M.A.S.T., revised the manuscript. All authors read and approved the final version of the manuscript.

Abbreviations and symbols

AAS Abuse Assessment Screen
SVP Sexual Violence During Pregnancy
WHO World Health Organization

FUNDING

The authors received no financial support for the research, authorship, and/or publication of this article

Orcid authors

Mariana Pércia Namé de Souza Franco – ORCID: 0000-0002-3912-9288
Fernanda Diniz e Silva – ORCID: 0000-0002-6854-7120
Ana Luíza de Oliveira Assis – ORCID: 0000-0003-2223-699X
Heloisa Fracalossi Frigini – ORCID: 0000-0003-2780-0254
Maria Aparecida dos Santos Traverzim – ORCID: 0000-0003-0556-350X
Jefferson Drezett - ORCID: 0000-0003-4072-3636

REFERENCES

1. World Health Organization. WHO multi-country study on women's health and domestic violence against women: summary report of initial results on prevalence, health outcomes and women's responses. Geneva: World Health Organization; 2005. 206p.
2. Bessa MMB, Drezett J, Rolim M, Abreu LC. Violence against women during pregnancy: sistematized revision. *Reprod Clim.* 2014;29(2):71-9. DOI: 10.1016/j.recli.2014.09.001.
3. Durand JG, Schraiber LB. Violência na gestação entre usuárias de serviços públicos de saúde da Grande São Paulo: prevalência e fatores associados. *Rev Bras Epidemiol.* 2007;10(3):310-22. DOI: 10.1590/S1415-790X2007000300003.
4. Khosla AH, Dua D, Devi L, Sud SS. Domestic violence in pregnancy in North Indian women. *Indian J Med Sci.* 2005;59(5):195-9. DOI: 10.4103/0019-5359.16255.
5. Campbell J, García-Moreno C, Sharps P. Abuse during pregnancy in industrialized and developing countries. *Violence Against Women.* 2004;7:770-89. DOI: 10.1177/1077801204265551.
6. Iliyasu Z, Abubakar IS, Galadanci HS, Hayatu Z, Aliyu MH. Prevalence and risk factors for domestic violence among pregnant women in northern Nigeria. *J Interpers Violence.* 2013;28(4):868-83. DOI: 10.1177/0886260512455872.

7. Taft AJ, Watson LF. Depression and termination of pregnancy (induced abortion) in a national cohort of young Australian women: the confounding effect of women's experience of violence. *BMC Public Health*. 2008;26(75):1-8. DOI: 10.1186/1471-2458-8-75.
8. Hoang TN, Van TN, Gammeltoft T, Meyrowitsch DW, Thuy HNT, Rasch V. Association between intimate partner violence during pregnancy and adverse pregnancy outcomes in Vietnam: a prospective cohort study. *PLoS One*. 2016;11(9):e0162844. DOI:10.1371/journal.pone.0162844.
9. Santos SA, Lovisi GM, Valente CCB, Legay L, Abelha L. Violência doméstica durante a gestação: um estudo descritivo em uma unidade básica de saúde no Rio de Janeiro, Brasil. *Cad Saude Colet*. 2010;18(4):483-93.
10. Coker AL, Sanderson M, Dong B. Partner violence during pregnancy and risk of adverse pregnancy outcomes. *Paediatr Perinat Epidemiol*. 2004;18(4):260-9. DOI: 10.1111/j.1365-3016.2004.00569.x.
11. Okada MM, Hoga LAK, Borges ALV, Albuquerque RS, Belli MA. Domestic violence against pregnant women. *Acta Paul Enferm*. 2015;28(3):270-4. DOI: 10.1590/1982-0194201500045.
12. Menezes TC, Amorim MMR, Santos LC, Faúndes A. Violência física doméstica e gestação: resultados de um inquérito no puerpério. *Rev Bras Ginecol Obstet*. 2003;25(5): 309-16. DOI: 10.1590/S0100-72032003000500002.
13. Karaoglu L, Celbis O, Ercan C, Ilgar M, Pehlivan E, Gunes G, et al. Physical, emotional and sexual violence during pregnancy in Malatya, Turkey. *Eur J Public Health*. 2006;16(2):149-56. DOI: 10.1093/eurpub/cki161.
14. Audi CAF, Segall-Corrêa AM, Santiago SM, Andrade MGG, Pèrez-Escamila R. Violence against pregnant women: prevalence and associated factors. *Rev Saude Publica*. 2008;42(5):877-85. DOI: 10.1590/S0034-89102008005000041.
15. Moraes CL, Arana FDN, Reichenheim ME. Physical intimate partner violence during gestation as a risk factor for low quality of prenatal care. *Rev Saude Publica*. 2010;44(4):667-76. DOI: 10.1590/S0034-89102010000400010.
16. Viellas EF, Gama SGN, Carvalho ML, Pinto LW. Factors associated with physical aggression in pregnant women and adverse outcomes for the newborn. *J Pediatr*. 2013;89(1):83-90. DOI: 10.1016/j.jpdp.2012.08.009.
17. Ahmed S, Koenig MA, Stephenson R. Effects of domestic violence on perinatal and early-childhood mortality: evidence from north India. *Am J Public Health*. 2006;96(8):1423-8. DOI: 10.2105/AJPH.2005.066316.
18. Martin-de-Las-Heras S, Velasco C, Luna-Del-Castillo JD, Khan KS. Maternal outcomes associated to psychological and physical intimate partner violence during pregnancy: a cohort study and multivariate analysis. *PloS One*. 2019;14(6):e0218255. DOI:10.1371/journal.pone.0218255.
19. Monteiro CFS, Costa NSS, Nascimento PSV. A violência intra-familiar contra adolescentes grávidas. *Rev Bras Enferm*. 2007;60(4):373-6. DOI: 10.1590/S0034-71672007000400002.
20. Bo M, Canavese A, Magnano L, Rondana A, Castagna P, Gino S. Violence against pregnant women in the experience of the rape centre of Turin: Clinical and forensic evaluation. *J Forensic Leg Med*. 2020;76:102071. DOI: 10.1016/j.jflm.2020.102071.
21. Gazmararian JA, Lazorick S, Spitz AM, Ballard TJ, Saltzman LE, Marks JS. Prevalence of violence against pregnant women. *JAMA*. 1996;275(24):1915-20. doi:10.1001/jama.1996.03530480057041
22. Valladares E, Peña R, Persson LA, Högberg U. Violence against pregnant women: prevalence and characteristics. A population-based study in Nicaragua. *BJOG*. 2005;112(9):1243-8. DOI: 10.1111/j.1471-0528.2005.00621.x.
23. Johnson JK, Haider F, Ellis K, Hay DM, Lindow SW. The prevalence of domestic violence in pregnant women. *BJOG*. 2003;110(3):272-5. DOI: 10.1046/j.1471-0528.2003.02216.x.
24. Leung WC, Leung TW, Lam YYI, HO PC. The prevalence of domestic violence against pregnant women in a Chinese community: social issues in reproductive health. *Int J Gynecol Obstet*. 1999;66(1):23-30. DOI: 10.1016/S0020-7292(99)00053-3.
25. Kaye DK, Mirembe FM, Bantebya G, Johansson A, Ekstrom AM. Domestic violence during pregnancy and risk of low birth weight and maternal complications: a prospective cohort study at Mulago Hospital, Uganda. *Trop Med Int Health*. 2006;11(10):1576-84. DOI: 10.1111/j.1365-3156.2006.01711.x.
26. Chasweka R, Chimwaza A, Maluwa A. Isn't pregnancy supposed to be a joyful time? A cross-sectional study on the types of domestic violence women experience during pregnancy in Malawi. *Malawi Med J*. 2018;30(3):191-6. DOI: 10.4314/mmj.v30i3.11.

27. Drezett J, Bessa MMM, Valenti VE, Adami F, Abreu LC. Sexually transmitted infections among adolescent and adult women victims of sexual violence in the metropolitan region of São Paulo, Brazil, *Hum Reprod Arch*. 2020;35:e000320. DOI: 10.4322/hra.000320.
28. Dikmen HA, Çankaya S. The effect of exposure to sexual violence on sexual dysfunction and sexual distress in pregnant women. *J Sex Med*. 2020;17(12):2394-407. DOI: 10.1016/j.jsxm.2020.09.006.
29. Gürkan ÖC, Ekşi Z, Deniz D, Çırçır H. The influence of intimate partner violence on pregnancy symptoms. *J Interpers Violence*. 2020;35(3-4):523-41. DOI: 10.1177/0886260518789902.
30. Moraes CL, Reichenheim ME. Domestic violence during pregnancy in Rio de Janeiro. *Int J Gynaecol Obstet*. 2002;79(3):269-77. DOI: 10.1016/s0020-7292(02)00250-3.
31. Bessa MMM, Drezett J, Souza-Júnior HMF, Adami F, Bezerra IMP, Abreu LC. Physical and sexual violence during pregnancy in the northeastern backlands of Brazil: a cross-sectional study. *Hum Reprod Arch*. 2022;37:e000321. DOI: 10.4322/hra.000321.
32. Instituto Brasileiro de Geografia e Estatística. Ministério do Planejamento, Desenvolvimento e Gestão. Síntese de indicadores sociais: uma análise das condições de vida da população brasileira 2016. Rio de Janeiro: Instituto Brasileiro de Geografia e Estatística; 2016. 141p.
33. Reichenheim ME, Moraes CL, Hasselmann MH. Equivalência semântica da versão em português do instrumento Abuse Assessment Screen para rastrear a violência contra a mulher grávida. *Rev Saude Publica*. 2000;34(6):610-16. DOI: 10.1590/S0034-89102000000600008.
34. Ferri CP, Mitsuhiro SS, Barros MCM, Chalem E, Guinsburg R, Patel V, et al. The impact of maternal experience of violence and common mental disorders on neonatal outcomes: a survey of adolescent mothers in Sao Paulo, Brazil. *BMC Public Health*. 2007;7:209. DOI: 10.1186/1471-2458-7-209.
35. Rurangirwa AA, Mogren I, Ntaganira J, Krantz G. Intimate partner violence among pregnant women in Rwanda, its associated risk factors and relationship to ANC services attendance: a population-based study. *BMJ Open*. 2017;7(2):e013155. DOI: 10.1136/bmjopen-2016-013155.
36. Naghizadeh S, Mirghafourvand M, Mohammadirad R. Domestic violence and its relationship with quality of life in pregnant women during the outbreak of COVID-19 disease. *BMC Pregnancy Childbirth*. 2021;21(1):88. DOI: 10.1186/s12884-021-03579-x.
37. Cervantes-Sánchez P, Delgado-Quiñones EG, Nuño-Donlucas MO, Sahagún-Cuevas MN, Hernández-Calderón J, Ramírez-Ramos JK. Prevalence of domestic violence in pregnant women from 20 to 35 years in a family medicine unit. *Rev Med Inst Mex Seguro Soc*. 2016;54(3):286-91.
38. Koch AR, Rosenberg D, Geller SE. Higher risk of homicide among pregnant and postpartum females aged 10-29 years in Illinois, 2002-2011. *Obstet Gynecol*. 2016;128(3):440-6. DOI: 10.1097/AOG.0000000000001559.
39. Halpern-Meekin S, Costanzo M, Ehrenthal D, Rhoades G. Intimate partner violence screening in the prenatal period: variation by state, insurance, and patient characteristics. *Matern Child Health J*. 2019;23(6):756-67. DOI: 10.1007/s10995-018-2692-x.
40. Garcia LP, Silva GDM. Violência por parceiro íntimo: perfil dos atendimentos em serviços de urgência e emergência nas capitais dos estados brasileiros, 2014. *Cad Saude Publica*. 2018;34(4):e00062317 DOI: 10.1590/0102-311X00062317.
41. Monteiro MFG, Romio JAF, Drezett J. Is there race/color differential on femicide in Brazil? The inequality of mortality rates for violent causes among white and black women. *J Hum Growth Dev*. 2021;31(2):358-66. DOI: 10.36311/jhgd.v31.1225.
42. Fiorotti KF, Amorim MHC, Lima EFA, Primo CC. Prevalência e fatores associados à violência doméstica: estudo em uma maternidade de alto risco. *Texto Contexto Enferm*. 2018;27(3). DOI: 10.1590/0104-07072018000810017.
43. Stöckl H, Watts C, Kilonzo Mbwambo JKK. Physical violence by a partner during pregnancy in Tanzania: prevalence and risk factors. *Reprod Health Matters*. 2010;18(36):171-80. DOI: 10.1016/S0968-8080(10)36525-6.
44. Finnbogadóttir H, Dykes AK, Wann-Hansson C. Prevalence and incidence of domestic violence during pregnancy and associated risk factors: a longitudinal cohort study in the south of Sweden. *BMC Pregnancy and Childbirth*. 2016;16:228. DOI: 10.1186/s12884-016-1017-6.
45. Janssen PA, Holt VL, Sugg NK, Emanuel I, Critchlow CM, Henderson AD. Intimate partner violence and adverse pregnancy outcomes: a population-based study. *Am J Obstet Gynecol*. 2003;188(5):1341-7. DOI: 10.1067/mob.2003.274.
46. Fórum Brasileiro de Segurança Pública. Anuário brasileiro de segurança pública 2020. 14ª ed. Brasília: Fórum Brasileiro de Segurança Pública; 2020. 332p.

47. Waiselfisz JJ. Mapa da violência 2015: homicídio de mulheres no Brasil. Brasília: FLACSO; 2015. 83p.
48. Talley P, Heitkemper M, Chicz-Demet A, Sandman CA. Male violence, stress, and neuroendocrine parameters in pregnancy: a pilot study. *Biol Res Nurs.* 2006;7(3):222-33. DOI: 10.1177/1099800405283182.
49. Belay S, Astatkie A, Emmelin M, Hinderaker SG. Intimate partner violence and maternal depression during pregnancy: a community-based cross-sectional study in Ethiopia. *PLoS One.* 2019;14(7):e0220003. DOI: 10.1371/journal.pone.0220003.
50. Brasil. Ministério da Saúde. Pesquisa nacional de demografia e saúde da criança e da mulher - PNDS 2006: dimensões do processo reprodutivo e da saúde da criança. Brasília: Ministério da Saúde, 2009. 302p.
51. Al-Tawil NG. Association of violence against women with religion and culture in Erbil Iraq: a cross-sectional study. *BMC Public Health.* 2012; 12(1). DOI: 10.1186/1471-2458-12-800.
52. Mohammadhosseini E, Sahraean L, Bahrami T. Domestic abuse before, during and after pregnancy in Jahrom, Islamic Republic of Iran. *East Mediterr Health J.* 2010;16:752-8. DOI:10.26719/2010.16.7.752.
53. Peedicayil A, Sadowski LS, Jeyaseelan L, Shankar V, Jain D, Suresh S, et al. Spousal physical violence against women mduring pregnancy. *BJOG.* 2004;111(7):682-7. DOI: 10.1111/j.1471-0528.2004.00151.x.
54. Bacchus L, Mezey G, Bewley S. A qualitative exploration of the nature of domestic violence in pregnancy. *Violence Against Women.* 2006;12(6):588–604. DOI: 10.1177/1077801206289131.
55. Ministério Público do Estado de São Paulo. Nota técnica. Alterações trazidas pela Lei nº 13.931/19 na Lei de notificação compulsória n. 10.778/03 e a Portaria n. 2.282, de 27 de agosto de 2020 do Ministério da Saúde. São Paulo: Ministério Público do Estado de São Paulo; 2020. 46p.

Resumo

Introdução: a violência sexual durante a gravidez é grave violação de direitos humanos e de direitos reprodutivos. Sua prevalência é variável e multifatorial, dependendo do território analisado e de fatores socioculturais e econômicos, exigindo permanente monitoramento.

Método: estudo transversal conduzido no Conjunto Hospitalar do Mandaqui, São Paulo, Brasil. Foi aplicado o Abuse Assessment Screen (AAS) para 350 puérperas, com desfecho de sofrer ou não violência sexual na gravidez, com dados coletados entre setembro e dezembro de 2021. Dados sociodemográficos e reprodutivos foram considerados. Empregamos técnica de urna, com dados pré-codificados analisados em Epilnfo® por Qui-quadrado de Pearson e teste de Mann Whitney, adotando valor de $p < 0,05$ e IC de 95%. Pesquisa aprovada pelo Comitê de Ética em Pesquisa, CAAE nº 50580421.5.0000.5551.

Resultados: verificamos oito casos de violência sexual (2,3%) e perda de amostra de 18,9%. Mulheres que sofreram violência sexual reportaram mais violência física nos últimos 12 meses (25,0% x 6,1% - $p = 0,033$, OR/IC 0,19: 0,03-1,03) e medo do parceiro íntimo mais frequente (25,0% x 3,5% - $p = 0,002$, OR/IC 0,10: 0,01-0,59), mas não constatamos diferença no antecedente de sofrer violência antes dos 15 anos e pelo parceiro ao longo da vida. Não observamos diferença quanto a idade, escolaridade, raça/cor, união, renda e trabalho. O mesmo ocorreu para aspectos reprodutivos, sem diferença quanto a ocorrência de prematuridade, gestação de alto risco, planejamento reprodutivo e uso de tabaco/álcool na gestação.

Conclusão: a prevalência de violência sexual na gestação foi menor do que em outros estudos brasileiros e populações de outros países. Mulheres com violência sexual na gestação enfrentam um cotidiano de medo e de violência física mais frequente. O antecedente elevado de sofrer violência antes dos 15 anos e de experimentar violência física ou emocional pelo parceiro íntimo pode agravar a situação. O elevado antecedente de violência e de medo do parceiro pode ter colaborado para eventual subdeclaração.

Palavras-chave: delitos sexuais, violência contra mulher, gestantes, vítimas de crime, violência por parceiro íntimo.

©The authors (2022), this article is distributed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made. The Creative Commons Public Domain Dedication waiver (<http://creativecommons.org/publicdomain/zero/1.0/>) applies to the data made available in this article, unless otherwise stated.