Intimate partner violence against pregnant women: study about the repercussions on the obstetric and neonatal results

ABSTRACT
This observational, descriptive and analytic study aimed to identify the prevalence of IPV cases among pregnant women and classify them according to the type and frequency; identify the obstetric and neonatal results and their associations with the intimate partner violence (IPV) occurrence in the current pregnancy. It was developed with 232 pregnant women who had prenatal care at a public maternity hospital. Data were collected via structured interview and in the patients’ charts and analyzed through the statistical software SAS® 9.0. Among the participants, 15.5% suffered IPV during pregnancy, among that 14.7% suffered psychological violence, 5.2% physical violence and 0.4% sexual violence. Women who did not desire the pregnancy had more chances of suffering IPV (p<0.00; OR=4.32 and 95% CI [1.77 – 10.54]). With regards to the obstetric and neonatal repercussions, there was no statistical association between the variables investigated. Thus, for the study participants there were no negative obstetric and neonatal repercussions related to IPV during pregnancy.

DESCRIBERS
Violence against women
Pregnancy
Spouse abuse
Maternal and child health
Maternal-child nursing

RESUMO
Este estudio observacional, descritivo e analítico que objetivou identificar a prevalência de violência por parceiro íntimo (VPI) entre gestantes e classificá-la quanto ao tipo e frequência; identificar resultados obstétricos e neonatais e suas associações com a ocorrência da VPI na gestação atual. Foi desenvolvido com 232 gestantes que realizaram acompanhamento pré-natal em uma maternidade pública. Os dados foram coletados por entrevista estruturada e nos prontuários e analisados com o programa SAS® 9.0. Entre as participantes, 15,5% sofreram VPI durante a gestação, sendo que 14,7% sofreram violência psicológica, 5,2% violência física e 0,4% violência sexual. As mulheres que não desejaram a gestação tiveram maior chance de sofrer VPI (p<0,00; OR=4,32 e IC 95% [1,77 – 10,54]). Com relação às repercussões obstétricas e neonatais, não houve associação estatisticamente significativa entre as variáveis investigadas. Conclui-se que para as participantes do estudo, não houve repercussões obstétricas e neonatais negativas relacionadas à VPI na gestação.

DESCRITORES
Violencia contra a mulher
Gravidez
Maus-tratos conjugais
Saúde materno-infantil
Enfermagem materno-infantil

RESUMEN
Estudio observacional, descriptivo y analítico que buscó identificar la prevalencia de violencia del compañero íntimo (VCI) entre mujeres embarazadas y clasificarla según tipo y frecuencia e identificar los resultados obstétricos y neonatales y su asociación con la ocurrencia de VCI en el embarazo actual. La recolección de datos se realizó por medio de entrevistas estructuradas y la revisión del historial médico de 232 mujeres que recibieron atención prenatal en un hospital público. El análisis se realizó con el programa estadístico SAS® 9.0. Se encontró que el 15,5% de las participantes sufrió VCI durante el embarazo, de éstas el 14,7% sufrió violencia psicológica, el 5,2% violencia física y el 0,4% violencia sexual. Las mujeres que no deseaban el embarazo tenían más probabilidades de experimentar VCI (p <0,00, OR=4,32 e IC 95% [1,77 - 10,54]). No se encontró asociación estadísticamente significativa entre la VCI y las repercusiones obstétricas y neonatales. Se concluyó que, para las participantes del estudio, no hubo repercusiones negativas relacionadas con la VCI.

DESCRIBENTES
Violencia contra la mujer
Embarazo
Maltrato conyugal
Salud materno-infantil
Enfermería materno-infantil

* Extracted from the dissertation “Intimate partner violence against pregnant women: study on obstetric and neonatal repercussions”, Ribeirão Preto School of Nursing, University of São Paulo, 2013.
1 Masters’ student, Nursing Public Health Program, Ribeirão Preto School of Nursing, University of São Paulo, Ribeirão Preto, SP, Brazil. drieliprod@gmail.com
2 Associate Professor, Department of Maternal-Child Nursing and Public Health, Ribeirão Preto School of Nursing, University of São Paulo, Ribeirão Preto, SP, Brazil.
3 PhD Professor, Department of Maternal-Child Nursing and Public Health, Ribeirão Preto School of Nursing, University of São Paulo, Ribeirão Preto, SP, Brazil.
4 Tenure Professor, Department of Maternal-Child Nursing and Public Health, Ribeirão Preto School of Nursing, University of São Paulo, Ribeirão Preto, SP, Brazil.
INTRODUCTION

Violence against women (VAW) is widely recognized as a serious public health problem, and the most common form of abuse is intimate partner violence (IPV). It can be defined as a threat either physical, sexual or psychological abuse by partners or ex-partners, with whom women have lived or live with, regardless of formal marriage or cohabitation\(^1\)\(^3\).

Violence during pregnancy can have serious physical consequences for women’s health, the fetus and later the newborn, such as late onset of prenatal care, bleeding, pelvic pain, premature birth, termination of pregnancy, complications in the intraoperative delivery, increased risk of perinatal death, fetal trauma and low birth weight of the newborn at birth\(^4\).

Pregnancy as a condition that can lead women to use health services more frequently\(^5\) and a more constant presence in these services can act as a facilitator in building bonds with the healthcare team and facilitate the identification of cases of violence.

This study is justified by the importance of knowing and analyzing the aspects related to obstetric and neonatal repercussions of pregnant women who experience IPV situations and seeks to answer the following question: What are the obstetric and neonatal results that are associated with the occurrence of violence during pregnancy?

Our objectives were to identify the prevalence of cases of IPV among pregnant women from prenatal care service in a public hospital in Ribeirao Preto-SP and classify these women according to the type and frequency; to identify obstetric characteristics and obstetric and neonatal results and their associations with the occurrence of IPV against women in their current pregnancy.

METHOD

Observational, descriptive and analytical study conducted in a public low risk maternity and a university hospital, both located in Ribeirao Preto, in the southeastern Brazil.

The reference population consisted of all pregnant women who received prenatal care at the hospital maternity. Inclusion criteria were: pregnant women aged between 15 and 49 years following prenatal and who maintained relationships with an intimate partner during pregnancy, regardless of cohabitation. Exclusion criteria were: pregnant women with hearing, visual or cognitive disabilities; disoriented women as to time, place or person; with multiple pregnancy or pregnant women who reported not being literate, independently of their education.

The sample size calculation was performed using information on prevalence of IPV during pregnancy\(^6\). Using the program Power Analysis and Sample Size (PASS) version 2002, a systematic probability sample was calculated based on a finite population of 1,600 pregnant women in care during the period of data collection from May to December 2012 and the following information: the prevalence of 30.7% of IPV during pregnancy, precision of 5%, estimated with 95% confidence intervals and adding 15% for patient losses.

Throughout data collection, we had a loss of follow-up of three participants, one due to the occurrence of birth in another institution, another due to participant’s drop out and the third because the participant appeared disoriented during the interview. Thus, the sample consisted of 232 pregnant women.

Data collection was performed by the main researcher, five graduate students and two undergraduate students who performed scientific research initiation, all of which had previous training. Two instruments were used: the first was adapted for the study based on the proposed model and adapted by other authors\(^6\). This first data collection instrument was composed of a first part on the sociodemographic characteristics of the pregnant women and her partner and obstetric characteristics, and a second containing questions related to violence. The second instrument was built specifically for this study, with the variables related to obstetric and neonatal results of women participants. Before being used, it was subjected to content validation by expert judges.

Data collection was performed in two moments: in the first prenatal consultation of the pregnant women in the service, when she was invited to participate in the study and, after acceptance, the first instrument was used for data collection. The second meeting took place in the immediate postpartum and information were obtained from medical records of the study participants and their newborns, being used a data instrument which was about obstetric and neonatal results.

Data were stored in a structured spreadsheet in Microsoft Excel, through double entry, which allowed the validation of the entered data to eliminate possible errors and ensure reliability in data compilation. The analysis was performed using the statistical program Statistical Analysis System SAS\(^7\)* 9.0. To characterize the sample, data analysis was based on descriptive statistics. To investigate the association between qualitative variables, the statistical technique used was Fisher’s exact test. Furthermore, quantification of the association was measured by means of logistic regression models, thus calculated odds ratio (OR) with their respective 95% confidence intervals. For all statistical analyzes, a significant values of \(p\) less than 0.05 were considered.

Regarding ethical aspects, standards for research involving human subjects established by Resolution 196/96 of the National Health Council were followed. The project was submitted to the Ethics Committee (EC) of the Ribeirao Preto School of Nursing, University of Sao Paulo.
being approved under No. 1383/2011. The interviews were conducted in a private place without the presence of companions, after participants had received information on the research objectives and had agreed to participate, they signed a Consent Form (CF).

RESULTS

The sample consisted mostly of women with an average age of 25 years (SD=6.20), who had black or brown skin (40.1%) with a mean of 9.6 years of education (SD=2.43), catholic (42.3%) without a paid occupation (59.0%), ie, housewives, unemployed or students; non-smokers (94.0%), who did not drink alcohol (86.6%) or illicit drugs (98.7%), single (65.5%), cohabiting with an intimate partner (78.0%) and had an average family income of 2.5 minimum wages (SD=1,34), having the partner as family provider (47.9%).

Regarding obstetric characterization of participants, the mean number of pregnancies (including current) was 2.1 (SD=1.27) and mean children was 1.6 (SD=0.99). 35 women (15.0%) reported previous abortions and 106 (45.7%) reported having no living children (disregarding the current pregnancy). The majority (n=156; 67.2%) reported that the current pregnancy was not planned, however, 206 (88.8%) stated that the pregnancy was desired.

Data on early prenatal was obtained from 190 participants, with 119 (62.6%) beginning prenatal care in the first trimester of pregnancy. Regarding the number of prenatal visits, data were obtained from 229 women, and 220 (96.0%) had 6 or more visits during pregnancy.

With regard to obstetric complications, 99 women (42.7%) had some complication during pregnancy, 11 (4.7%) had some complication during labor, 83 (35.8%) during delivery, and 89 (38.4%) in the postpartum period. Nineteen participants (8.2%) were referred for resolution of pregnancy at the University Hospital. Most study participants, with 119 (62.6%) beginning prenatal care in the first trimester of pregnancy. Regarding the number of prenatal visits, data were obtained from 229 women, and 220 (96.0%) had 6 or more visits during pregnancy.

From the 99 participants who had complications during pregnancy, 52 (52.5%) had urinary tract infection, 28 (28.3%) vulvovaginitis, 14 (14.1%) gestational hypertension, 8 (8.1%) premature amniotic sac, 6 (6.0%) some kind of bleeding, 4 (4.0%) preterm labor, 4 (4.0%) gestational diabetes; 4 (4.0%) a sexually transmitted disease (STD); 3 (3.0%), preeclampsia; 2 (2.0%), intrauterine growth restriction and 1 (1.0%), premature separation of the placenta. The same pregnant woman may have been affected by more than one complication, for this reason, the final sum of occurrences exceeds 100%.

Among women who had complications during labor (n=11), 6 (54.5%) had systemic hypertension, and 4 (36.4%) preeclampsia. During labor, 124 participants (53.4%) received analgesia. Of the participants who had any complication during delivery (n=83), 58 (69.0%) had lacerations, 2 (2.4%), hypertension and 1 (1.2%) had bleeding and one (12%) placenta accreta. Of the 89 pregnant women who had some type of complication in the postpartum period, 83 (93.3%) had nipple trauma, 4 (4.5%) hypertension, 4 (4.5%) breast engorgement, 3 (3.4%) uterine bleeding, 2 (2.25%) hypotension, 1 (1.1%) retained placenta and other (1.1%) puerperal infection.

Regarding newborns from the study participants (n=232), mean gestational age at birth was 39.8 weeks (SD=1.3), with a minimum of 36 and maximum of 42.8 weeks. The majority (n=220, 94.8%) were born at term, were female (n=131; 56.5%) and had Apgar scores between 7 and 10 (n=205; 88.4%) in first minute of life and between 7 and 10 (n=230; 99.1%) in the fifth minute.

With regard to the weight of neonates at birth, the average was 3,305g (SD=453.9), with a minimum of 1,730g and maximum of 4,425g, of which 3.9% presented were low weight at birth (<2,499g). It was observed that 79 (34.0%) had some type of complication at birth: 55 (69.6%) had cyanosis, 52 (65.8%) altered muscle tone, 34 (43.0%), respiratory difficulty; 13 (16.7%), bradycardia; 4 (5.0%), respiratory arrest, 1 (1.3%), cardiopulmonary arrest; and 1 (1.3%), malformation.

From the 232 newborns, 214 (92.2%) underwent some type of procedure (invasive or not) at birth: in 148 (69.2%) aspiration of the upper airway was performed, 106 (53.5%) performed contact skin to skin with the mother, 38 (17.8%) underwent gastric lavage, 19 (8.9%) received oxygen, 16 (7.5%) had gastric aspiration, 15 (7.0%) underwent tracheal intubation, 14 (6.5%) made use of mask and manual ventilator and 1 (0.5%) had cardiac massage.

With respect to being referred after birth, 205 (88.4%) newborns were referred to collective room, 26 (11.2%) to the intermediate care unit (INCU), 1 (0.4%) to the neonatal intensive care unit (ICU) and 8 (3.4%) to other health institutions.

The mean hospital stay for newborns in maternity birthplace was on average 2.44 days (SD=1.96), with a minimum stay of 1 day and maximum of 22 days. During hospitalization, 55 (23.7%) had some type of complication: 28 (50.0%) had icterus, 22 (39.3%) had respiratory difficulties, 12 (21.4%) had hypoglycemia, 2 (3.6%) had dehydration, and 1 (1.8%), impetigo.

In 22 (9.5%) cases it was necessary to contact the social care service and in 4 (1.7%), with the Guardian Council, however we have not investigated the reasons for these referrals.

With regard to the prevalence of cases of violence between the participants, 128 (55.2%) had some form of intimate partner violence in their lifetime and 36 (15.5%) had violence occurred during pregnancy. As for the type and frequency of violence experienced by participants the classification was psychological violence (n=34; 14.7%), physical violence (n=12; 5.2%) and sexual violence (n=1; 0.4%).
Table 1 shows the association between IPV and obstetric characteristics of the participants. Data analysis showed an association between the occurrence of violence perpetrated by their partner during pregnancy and the desire of pregnancy, and women who did not desire the pregnancy had 4.3 times the odds of experiencing IPV during pregnancy, compared with those who desired gestation (p <0.01, OR=4.32 and 95% CI [1.77 to 10.54]).

The variable number of pregnancies, number of abortions, number of births, previous preterm births, number of stillbirths, number of children who died after birth, number of live children, current planned pregnancy, gestational age at onset of prenatal care, number of prenatal consultations in the current pregnancy showed no statistically significant association with the dependent variable (Table 1).

### Table 1 - Analysis of the occurrence of violence by an intimate partner during pregnancy associated with obstetric characteristics of participants - Ribeirao Preto, 2013

<table>
<thead>
<tr>
<th>Violence during pregnancy by an intimate partner</th>
<th>No</th>
<th>Yes</th>
<th>p-value*</th>
<th>odds ratio</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nº of pregnancies including the current pregnancy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One</td>
<td>81 (34.91)</td>
<td>13 (5.60)</td>
<td>1.106</td>
<td>(0.444 ; 2.752)</td>
<td></td>
</tr>
<tr>
<td>Two</td>
<td>53 (22.84)</td>
<td>14 (6.03)</td>
<td>0.3636</td>
<td>(0.729 ; 4.540)</td>
<td></td>
</tr>
<tr>
<td>Three or more</td>
<td>62 (26.72)</td>
<td>9 (3.88)</td>
<td>1</td>
<td>Referência</td>
<td></td>
</tr>
<tr>
<td><strong>Wanted Pregnancy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>180 (77.59)</td>
<td>26 (11.21)</td>
<td>0.0021</td>
<td>4.327</td>
<td>(1.776 ; 10.54)</td>
</tr>
<tr>
<td>No</td>
<td>16 (6.90)</td>
<td>10 (4.31)</td>
<td>1</td>
<td>Referência</td>
<td></td>
</tr>
<tr>
<td>One</td>
<td>59 (46.09)</td>
<td>15 (11.22)</td>
<td>3.814</td>
<td>(0.466 ; 31.207)</td>
<td></td>
</tr>
<tr>
<td><strong>Nº of Labors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two</td>
<td>31 (24.22)</td>
<td>7 (5.47)</td>
<td>0.4561</td>
<td>3.387</td>
<td>(0.381 ; 30.086)</td>
</tr>
<tr>
<td>Three or more</td>
<td>15 (11.72)</td>
<td>1 (0.78)</td>
<td>1</td>
<td>Referência</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>93 (40.09)</td>
<td>13 (5.60)</td>
<td>1</td>
<td>Referência</td>
<td></td>
</tr>
<tr>
<td><strong>Nº of Children</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One</td>
<td>62 (26.72)</td>
<td>15 (6.47)</td>
<td>0.3956</td>
<td>1.731</td>
<td>(0.771 ; 3.888)</td>
</tr>
<tr>
<td>Two or more</td>
<td>41 (17.67)</td>
<td>8 (3.45)</td>
<td>1.396</td>
<td>(0.538 ; 3.625)</td>
<td></td>
</tr>
<tr>
<td>Until 12.8</td>
<td>103 (54.21)</td>
<td>16 (8.42)</td>
<td>1</td>
<td>Referência</td>
<td></td>
</tr>
<tr>
<td><strong>GA in the beginning of PN in weeks</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 – 24.8</td>
<td>56 (29.47)</td>
<td>12 (6.32)</td>
<td>0.3606</td>
<td>1.379</td>
<td>(0.610 ; 3.120)</td>
</tr>
<tr>
<td>25 or more</td>
<td>2 (1.05)</td>
<td>1 (0.53)</td>
<td>3.219</td>
<td>(0.276 ; 37.584)</td>
<td></td>
</tr>
</tbody>
</table>

* Fisher’s exact test. 95% CI = 95% confidence interval.

With regard to obstetric repercussions, there was no statistically significant association between the variable occurrence of violence during pregnancy perpetrated by an intimate partner and the variables complications during pregnancy, complications during labor, analgesia during labor, type of delivery, complications in childbirth and complications in the puerperium.

With respect to neonatal repercussions of the children of the participants, the analysis by Fisher’s exact test and logistic regression showed no statistically significant association between the variables: gestational age at birth, Apgar score in the first minute of life, Apgar score at five minutes of life, weight at birth, complications at birth, procedures performed at birth, newborn referral to the unit for intensive or intermediate care, referral of the newborn to another institution, complications during hospitalization, need contact with social worker, need to contact the Guardianship Board and length of stay with the occurrence of violence. For variables Apgar score in the first minute of life, weight at birth and need to contact a social worker, there was no statistically significant result (Table 3).

### Table 2 - Analysis of the occurrence of violence by an intimate partner during pregnancy, associated with the type of delivery and obstetric results of participants - Ribeirao Preto, 2013

<table>
<thead>
<tr>
<th>Violence during pregnancy by an intimate partner</th>
<th>No</th>
<th>Yes</th>
<th>p-value*</th>
<th>odds ratio</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Complications during labor</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sim</td>
<td>8 (3.45)</td>
<td>3 (1.29)</td>
<td>0.3835</td>
<td>2.136</td>
<td>(0.539 ; 8.471)</td>
</tr>
<tr>
<td>Não</td>
<td>188 (81.03)</td>
<td>33 (14.22)</td>
<td>1</td>
<td>Reference</td>
<td></td>
</tr>
<tr>
<td>Normal</td>
<td>127 (54.74)</td>
<td>19 (8.19)</td>
<td>1.197</td>
<td>(0.142 ; 10.112)</td>
<td></td>
</tr>
<tr>
<td><strong>Type of labor</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cesárea</td>
<td>61 (26.29)</td>
<td>16 (6.90)</td>
<td>0.3126</td>
<td>2.098</td>
<td>(0.244 ; 18.023)</td>
</tr>
<tr>
<td>Fórceps</td>
<td>8 (3.45)</td>
<td>1 (0.43)</td>
<td>1</td>
<td>Reference</td>
<td></td>
</tr>
</tbody>
</table>

* Fisher’s exact test. 95% CI = 95% confidence interval.
Table 3 - Analysis of the occurrence of violence by an intimate partner during pregnancy, neonatal outcomes associated with the children of participants - Ribeirao Preto, 2013

<table>
<thead>
<tr>
<th>Violence during pregnancy by an intimate partner</th>
<th>No</th>
<th>Yes</th>
<th>p-value*</th>
<th>odds ratio</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apgar in the 1st minute</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 a 7</td>
<td>174 (75.00)</td>
<td>31 (13.36)</td>
<td>1.000</td>
<td>Reference</td>
<td></td>
</tr>
<tr>
<td>6 a 4</td>
<td>15 (6.47)</td>
<td>3 (1.29)</td>
<td>0.7448</td>
<td>1.123</td>
<td>0.307 ; 4.107</td>
</tr>
<tr>
<td>3 a 0</td>
<td>7 (3.02)</td>
<td>2 (0.86)</td>
<td></td>
<td>1.604</td>
<td>0.318 ; 8.081</td>
</tr>
<tr>
<td>Weight at birth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Underweight</td>
<td>6 (2.59)</td>
<td>3 (1.29)</td>
<td>0.1484</td>
<td>2.879</td>
<td>0.686 ; 12.082</td>
</tr>
<tr>
<td>Normal weight</td>
<td>190 (81.90)</td>
<td>33 (14.22)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact with a social worker</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>17 (7.33)</td>
<td>5 (2.16)</td>
<td>0.3519</td>
<td>1.698</td>
<td>0.584 ; 4.939</td>
</tr>
<tr>
<td>No</td>
<td>179 (77.16)</td>
<td>31 (13.36)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Fisher’s exact test. 95% CI 95% confidence interval.

DISCUSSION

Regarding the prevalence of occurrence of violence between the participants, 66.4% had suffered some kind of violence perpetrated by family members, friends, acquaintances or strangers at least once in life. Regarding the IPV, 55.2% of women had experienced some type of IPV in their lifetime and 15.5% had some type of IPV in the current pregnancy.

Other studies conducted in Ribeirao Preto indicate the prevalence of IPV in their lifetime between 45.3 and 58.5% being the prevalence found in our study close to the average of this study results. With respect to IPV during pregnancy, this ranged from 19.6 to 80.8% found in the studies consulted, higher percentages compared to the present study.

Those who experienced IPV during pregnancy, 34 (94.4%) experienced psychological violence, 12 (33.3%) physical violence, and 1 (2.7%) experienced sexual violence. In other studies, psychological violence during pregnancy ranged from 18.1 to 79.8%; physical violence, 7.7 to 27.9%, and sexual violence, from 1.6 to 20.2%.

With regard to obstetric characteristics of the participants and the association with the occurrence of IPV during pregnancy, there was a statistically significant result between the occurrence of violence and desire of pregnancy, and women who did not desire the pregnancy had 4.3 times more chances of suffering violence compared to those who desired the pregnancy, confirming the findings of other studies.

Women in relationships with an authoritarian partner who are not opened to dialogue have less ability to negotiate about condom use during intercourse, being more vulnerable to unplanned pregnancy. Women experiencing IPV have less control over their sexuality and fertility and the power of decision on the use of contraceptive methods is often from their intimate partner. In view of this, in the context of a violent relationship, the difficulty of dialogue and negotiation about the use of contraceptive methods, the possibility of forced sexual intercourse or fear and occurrence of reproductive coercion increases the number of women who have unwanted pregnancies, as in the case of this study, reinforcing the influence of power relations and male domination over women's health.

The variable pregnancy was not significantly associated with the occurrence of IPV, however, studies indicate that women with more than three pregnancies had increased chance of violence than those who had never been pregnant or who have just had one pregnancy, not being consistent with the results of this study. About the number of births and number of children, authors consider that the chance of IPV is higher among women who had two or more labors, but do not indicate an association between the occurrence of IPV during pregnancy and the number of children of women, results similar to those seen in this study.

With respect to prenatal care, women who had experienced physical violence by their intimate partner during pregnancy showed less adequate care than those who did not experience violence. The quality of prenatal care was not investigated in this study, but most women started to follow up at the recommended time.

The variable number of abortions, previous preterm birth, number of stillbirths, number of children who died after birth, current planned pregnancy, and number of prenatal consultations showed no statistically significant association with violence. However, studies have shown an association between IPV and increased risk of abortion, increased risk of preterm delivery, association of violence with increased risk of stillbirth and perinatal death. In another study, no statistically significant association between planned pregnancy and IPV, as well as a study conducted in Mexico found no association between the number of prenatal visits and the occurrence of IPV, agreeing with the findings of this study.

Regarding the repercussions of obstetric complications during pregnancy, analgesia during labor, complications in childbirth and puerperal complications, no statistically significant association was observed with the dependent variable.
It is known that women who suffer violence before and during pregnancy may have a greater chance of complications, such as sexually transmitted diseases, high blood pressure, vaginal bleeding, diabetes and urinary tract infection, results that were not observed in this study. Furthermore, studies indicate a higher chance of women who experience IPV during pregnancy to have postpartum depression, an analysis that was not object of this investigation.

There was no significant association of the variable complications during labor and IPV, corroborating the findings of another study that found no association between the occurrence of dystocia during labor and delivery with the occurrence of violence during pregnancy. Also with respect to the type of labor, it has not been verified in the literature association with IPV.

Concerning complications during labor, delivery and postpartum, although they were considered important clinical aspects during pregnancy and childbirth cycle, no publications in the scientific literature were found that associate the occurrence of IPV during pregnancy with all selected variables of this research.

As for newborns, there was no statistically significant association between Apgar score, low birth weight and need to contact a social worker from the health care team with the occurrence of IPV during pregnancy. Other studies investigating neonatal results from IPV during pregnancy found no significant association with Apgar score in the first or fifth minute of newborns, corroborating our findings. The occurrence of newborns with low weight at birth for gestational age and prematurity were more common among pregnant women who had experienced IPV during pregnancy.

As for the referral of the newborn, a study indicates that women who have experienced violence before and during pregnancy have a greater chance of having their children sent to intensive care unit, not addressing referral to other institutions. Different result, similar to the present study, we found another investigation which found no such association.

For analysis of neonatal repercussions, some variables considered clinically important were investigated, such as the procedures performed at birth and length of stay of the newborn. However, the results were not statistically significant. Despite its clinical significance, no researches were found in the scientific literature that associated these variables with the occurrence of IPV during pregnancy.

CONCLUSION

The results of this study provide information for the awareness of professionals working in care to women during pregnancy and childbirth cycle, as regards the identification of IPV during pregnancy, so that they can offer a more comprehensive service that understands women’s situation, attending to their needs, which sometimes remain unnoticed.

Professionals should include screening in their practices, counseling, welcoming and refer them to the support network for pregnant women in situations of violence. In addition, the institution investigated and health services in general, screening and professional practice in violence against women would be facilitated if there were a systematic detection and appropriate conduct in these cases.

With regard to obstetric and neonatal repercussions of IPV during pregnancy, although they were considered clinically important, the results were not statistically significant. However, several studies show that IPV is impacting on maternal and newborn health.

Based on these, further research is needed to elucidate the relationship between IPV during pregnancy and the obstetric and neonatal repercussions, so that women are accompanied retrospectively and prospectively in relation to their perception on violence. The impact of pregnancy on reducing violence against women could be analyzed in the municipality in question, since the literature on the topic is still controversial. The coping strategies used by women victims of IPV could also be investigated in other theoretical and methodological frameworks in order to understand their real need in this situation (being pregnant and suffering violence).

Regarding the limitations of this study, one can cite the poor quality of the record in the patients’ charts, often incomplete or insufficient, resulting in underestimation of relevant data.

REFERENCES


