

Obstetric violence during childbirth and its relationship with the ethnicity of Ecuadorian women

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Abstract:

Background: Obstetric and gynecological violence refers to certain practices and behaviors performed by health professionals on women, which devalue, violate and oppress women during pregnancy, childbirth and puerperium, in the public or private sphere. This type of violence is perceived as gender discrimination and constitutes a violation of human rights; it manifests itself mainly as an uncomfortable relationship of power, which occurs between health professionals and pregnant women, who may be in labor or in the puerperium. The World Health Organization has placed special emphasis on the eradication of these bad medical practices, which constitutes a strong call to health care personnel to react correctly with dialogue and support for the pregnant woman.

Materials and Methods: A nationally representative sample of women over 12 years of age from the 2019 National Survey on Gender Violence was used. We used heteroscedasticity and autocorrelation tests of the data to rule out possible statistical modeling problems. In addition, we used multicollinearity tests to avoid redundant information in the models. We then used factor analysis to generate an index of obstetric violence and performed linear regressions to observe the correlation between obstetric violence and the ethnicity of the women in our sample. Finally, we addressed the heterogeneity observed in the proposed relationship using quantile regression techniques to disentangle the heterogeneous relationship in the distribution of our obstetric violence index and obtain correlation coefficients, with their 95% confidence intervals (95% CI).

Results: Our results show that women of indigenous ethnicity have greater obstetric violence compared to mestizo women. This result is also evident in the Afro-Ecuadorian ethnicity but the coefficients are higher in the indigenous ethnicity. We found that other control variables in the model such as age, income, employment, schooling, residential area and number of children also affect obstetric violence. Our results also show that there is a heterogeneous relationship between obstetric violence and the ethnicity of Ecuadorian women. Specifically, we found that ethnicity predicts more strongly the relationship among the most violent women.

Conclusion: In each case of obstetric violence, several fundamental rights are violated, and it is urgent to promote reflection and sensitization of health agents on this particular issue in order to modify those health practices that violate women's rights. Another interesting aspect to improve the current situation would be to implement programs that make gender violence visible in the healthcare setting, promote research related to obstetric violence and achieve interventions that reinforce the autonomy of the users. Recognition of the existence of obstetric violence in our healthcare system is the first step towards achieving a more just, equitable and democratic society.

Key Word: Obstetric Violence, Women, Health Personnel, Reproductive Rights.

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I. Introduction

While we are aware that childbirth is a natural and physiological process, through which all women of reproductive age go through, it is important to emphasize that they have the right to receive dignified care without discrimination of any kind. Obstetric violence is a type of violence that occurs during the health care provided to women during pregnancy, childbirth and postpartum, both in public and private health services and "consists of any action or omission of the personnel of the National Health System that causes physical

and/or psychological harm to the woman during pregnancy, delivery and postpartum, and that is expressed in the lack of access to reproductive health services, in cruel, inhuman or degrading treatment, or in an abuse of medicalization, undermining the ability to make free and informed decisions about these reproductive processes"¹. Villanueva (2010), states that obstetric violence can be manifested through: manipulation of the information provided on the state of health, scolding, delay in care, indifference to pain, not requesting the woman's consent and using her as didactic material during the care.²

Gender violence is a reality that affects millions of women around the world and is a form of violation of their human rights. According to the article by Alvarado Rigores and Guerra, in 1996, it was recognized by the World Health Organization (WHO) as a public health problem with major dimensions.³ Obstetric violence is one of the forms of transgression that frequently violates the human, sexual and reproductive rights of women, which is why it is also a serious public health problem, generating high consequences, mainly physical, psychological and psychological.⁴ For Pereira et al. (2015) in their study, they refer that even today this type of violence continues to be evidenced and its seriousness is not noticed.⁵

Obstetric violence has been transmitted from generation to generation by health personnel, making care the starting point for the violation of patients' fundamental rights.⁶ Therefore, obstetric violence derives fundamentally from poor medical practices applied by health personnel.⁷ For Wolff and Waldow (2008), this huge problem, which violates the integrity of women, has not been made visible due to the existing silence among actors such as the health professional, the patient and the family, which has prevented them from recognizing the true seriousness and magnitude of the problem.⁸ Chadwick (2016), states that the use of the term Obstetric Violence started as a "deliberate act to confront problematic practices", which have been hidden, invisibilized and not recognized as another form of violence against women.⁹

. Some authors in their studies describe that routine medical practices result in the loss of women's autonomy and ability to decide about their own bodies and sexual rights, making childbirth care processes safe for staff but not for women.¹⁰ This set of medical practices performed in excess in reference to what is established in the Clinical Practice Guidelines for the care of pregnant women issued by the Ministry of Public Health of Ecuador, such as: episiotomies, altering the natural process of childbirth through the administration of oxytocin, shaving of pubic hair, application of enemas, obstetric revision, vaginal tacts, forcing patients to give birth in the supine position when the necessary elements for vertical delivery are available without their free and informed consent, hindering early attachment when there is no justified medical cause, performing cesarean sections without the existence of justified medical conditions and not attending obstetric emergencies in a timely manner, intimidating, degrading and oppressing women during reproductive care.¹¹ Health care practices that added to the "economic or educational asymmetries in relation to health professionals", the distance to the facilities and often the costs generated by the care, lead women and their families not to seek professional obstetric care, discouraging the choice of an institutional delivery and increasing the risk of maternal or neonatal death.⁷ For Belli (2013), one of the causes of the silence about acts of violence experienced during pregnancy, childbirth and puerperium is due to the fact that many times medical practices performed excessively during care are considered normal by women, especially those who use free health services and "consider that submitting to unkind treatment is an inherent part of making use of such care", the naturalization of these acts has made it difficult for women who have been violated or their families to claim their rights, aggravated by the lack of knowledge of them.⁷ On the other hand, health personnel in charge of women's care often fail to question the legitimacy of their practices (Belli, 2013), added to the lack of knowledge about women's sexual and reproductive rights, are the trigger for a complex system of power relations exercised during care between staff and service users.¹²

Several studies indicate that the actions and omissions of obstetricians, doctors and nurses have serious consequences for women during childbirth.^{13,14} For Olza (2014), it is difficult for health professionals to accept the term "rape" or "violence" during their performance in the care of patients, however it is also common that professionals are as well as patients traumatized by the dehumanizing way during childbirth care¹⁵. Beck and Gable (2012), conducted a mixed study with nurses to determine the prevalence and severity of post-traumatic stress secondary to childbirth care. Several of the respondents stated that they had witnessed abusive deliveries and felt that they had failed patients by not advocating for them or questioning the actions of obstetricians during delivery care¹⁶.

For Olza (2014), it is easy for women to identify and conceptualize the issue of obstetric violence, what is really important is that professionals recognize and understand the actions of obstetric violence, all this may be a consequence of the extreme medicalization of childbirth, which also leads to a denial of the more spiritual aspects of childbirth".¹⁵ reasons have been identified that influence professionals to generate violent actions such as: lack of training and technical skills to deal with the emotional and sexual aspects of childbirth, unresolved trauma itself, mainly a high rate of professionals with burnout syndrome has been identified, health professionals with this syndrome and who perform health care during the prenatal stage, labor, delivery and

puerperium "generate an even more dehumanized treatment, with which the numbers of women who suffer traumatic births can continue to increase indefinitely".¹⁵.

Studies also identified that the personnel themselves have ever witnessed mistreatment of a pregnant woman and that it was exercised by 42.8% of the physicians and by 42.5% of the nursing personnel; in addition, 82.4% of the personnel are completely unaware of the term obstetric violence and 72.6% are unaware of the mechanisms for reporting it.⁴.

In this context, in 2016, a debate was initiated on the Organic Law for the Humanized Care of Pregnancy, Childbirth and Postpartum. This law seeks to regulate health care services, seeking to institutionalize the humanized care of childbirth, actively promote the participation of women, promote their protagonism, respect the decisions that women make about their bodies and their children and promote the principles of the humanization of childbirth. This bill seeks to introduce for the first time in Ecuador a definition of obstetric violence.⁹ However, the lack of knowledge about the care practices that are still used in the country, the lack of knowledge of health professionals and women about obstetric violence prevents the formulation of strategies that help to highlight and reduce the problem.¹⁷.

The continuous exercise of obstetric violence has become one of the most invisible and naturalized transgressions during the care of pregnant women in health services, the exercise of care practices carried out as routine have marked the quality of services and the health of women and their newborns.⁴. The treatment of women, the position of women in the birthing process, accompaniment, privacy, repeated vaginal tact, the incorrect use of informed consent, the lack of empowerment of women during childbirth, preventing early attachment when there is no medical condition to do so, the infantilization of women, and depersonalization, associated with unnecessary interventions have long been the main factor for violating the human, sexual and reproductive rights of women. It is important to know the perception of health professionals on obstetric violence, because it will allow us to know not only the ideas generated among this group of professionals, but also to define the strategies to be taken to reduce this problem.

Health care for pregnant women has become an open door for the use of violence by health personnel against women seeking medical care. The use of insults and routine medical practices during care not only affect the perception of the quality of services but also directly affect the health of mothers and newborns. The continuous exercise of obstetric violence, the lack of training in technical skills to deal with the emotional and sexual aspects of childbirth, and the lack of knowledge about sexual and reproductive rights have long had serious consequences on the health of women and their newborns. This work aims to contribute to the construction of information on the perception of health personnel, patients and health care practices during labor, delivery and immediate puerperium that are considered violent in order to close the vicious circle and address the issue to determine strategies to reduce the problem.

II. Material And Methods

Study Design and Population: A cross-sectional study was conducted with data obtained from the National Survey on Gender Violence against Women (ENVGCM, 2019), whose data were obtained and presented by the National Institute of Statistics and Census (INEC). After cleaning the database, a total of 8534 women were obtained.

Inclusion and Exclusion Criteria: Women under 15 years of age, men and women with income over 4 thousand dollars were excluded. Women who last gave birth more than 5 years ago.

Source of information: ENVGCM (2019) is a survey included in the National Statistical Program that employs probability sampling, whose target population is women in the 24 provinces of Ecuador. The ENVGCM 2019 includes the F2 form for married or unmarried women aged 15 years or older, where all the characteristics of Ecuadorian women are shown in order to make representative estimates at the national level, urban-rural, by geographic domain for the 24 provinces of the country.

Study Variables. Our dependent variable is the obstetric violence index. The information for this variable was obtained by calculating the data provided in the F2 form. Our independent variable of interest takes into account the self-perception of the women's ethnic group. Other sociodemographic and territorial control variables are added.

Statistical Analysis. The ENVGCM (2019) survey database was analyzed with the statistical package Stata v15 (Stata Corporation, College Station, Texas, USA). The association was evaluated using prevalence ratios with their respective 95% confidence intervals with an analysis for each of the variables included in the study, with the independent variable of interest being the ethnicity of Ecuadorian women. In order to estimate the relationship between obstetric violence and the ethnicity of Ecuadorian women, we propose the following linear regression model:

$$Obstetric\ violence_i = \beta_0 + \beta_1 X_i + \sum_{j=2}^{12} \beta_j Z_i + \varepsilon_i \tag{1}$$

Where *Obstetric violence*_{*i*} represents obstetric violence (measured by a weighted composite index), *X_i* represents the ethnicity of the women, and *Z_i* represents a set of socioeconomic and territorial control variables. Finally, *ε_i* represents the stochastic error term.

Next, we use a quantile regression (QR) approach. Since linear regression model (LRM) techniques assume a common slope for all individuals and these can focus on modeling only the conditional mean of the covariates and the dependent variable. Then, they cannot consider the properties of the full conditional distribution of the latter. Such models introduce a strong restriction, the assumption that the dependent variable is normally distributed, in order to obtain the best linear unbiased estimator (MELI) using the Ordinary Least Squares (OLS) methodology. Binder and Coad (2015) state that the previous methods provide limited information about the distribution of the dependent variable, since focusing on the mean implies that the estimates are not adequate to explain the effect of the different determinants of the dependent variable at the extremes of the distribution of this variable. Therefore, QR is the appropriate methodology to test whether any determinant has a heterogeneous effect across the distribution of obstetric violence. The QR model for the τ th quantile can be formulated as the following optimization problem:

$$\begin{aligned} \widehat{Q}_Y(\tau) &= \min_{\widehat{\theta} \in R^k} \sum_i \rho_\tau(y_i - X_i \widehat{\theta}) \\ \widehat{Q}_Y(\tau) &= \min_{\widehat{\theta} \in R^k} (u_i) \end{aligned} \tag{2}$$

where $\tau \in [0, 1]$ and $Q_\tau(\cdot)$ are defined as:

$$\rho_\tau(u_i) = \begin{cases} \tau u_i, & \text{if } u_i \geq 0 \\ (1 - \tau)u_i, & \text{if } u_i < 0 \end{cases} \tag{3}$$

The QR method minimizes the weighted sum of the residuals, not the sum squared of these residuals that is often applied in LRM. The minimization problem stated in Eq. (2) is efficiently solved by the linear programming method.

Ethical considerations. The present study did not require the approval of an institutional ethics committee for its execution, since it is an analysis of data freely available to the public and it was not necessary to use informed consent.

III. Result

To construct a composite measure of obstetric violence, within our research we specifically used 4 items from the questionnaires and considered that obstetric violence is a multidimensional concept, thus the traditional literature, and used a principal component factor analysis (PCA) to ensure that the items can be grouped into a factor dimension. Through PCA with a varimax rotation, we obtained 1 eigenvalue greater than 1. Therefore, we confirmed that we can explain the obstetric violence index through a one-dimensional index, where the factor loadings of each variable have the greatest weight in their respective dimension and these explain 87% of the variance. The questionnaire questions and their initial coding in the questionnaires are presented in **Table 1**. Our obstetric violence index was standardized in such a way that we obtained a number between 0-1 where a number closer to 1 means greater obstetric violence. To standardize our index to a number between 0-1 we followed the following procedure:

$$Standardized\ index = \frac{(X_i - X_i min^{sample})}{(X_i max^{sample} - X_i min^{sample})}$$

Where *X_i* is the factor value for individual *i*, *X_imin^{sample}* is the minimum factor value for individual *i* in the entire sample and *X_imax^{sample}* is the maximum factor value for individual *i* in the entire sample.

Table 1. EVGCM questions and coding

EVGCM question	Codification
Did they yell at her, scold her, insult her, criticize her, humiliate her or threaten not to attend to her because she was complaining so much?	0=No/1=Yes
Did they ignore you or refuse to provide you with information during labor, postpartum?	0=No/1=Yes
Were you asked or required to have your pubic region shaved or bowel washed (enema)?	0=No/1=Yes
Were you denied any alternative to reduce pain without explanation?	0=No/1=Yes
Were you forbidden to have a companion during labor and postpartum?	0=No/1=Yes
During labor, were you forced to stay in a position that was uncomfortable or uncomfortable for you?	0=No/1=Yes
Were you touched repeatedly and by different people without your consent and/or information?	0=No/1=Yes
Did they press on your abdomen or put you on any medication to speed up labor?	0=No/1=Yes
Did they perform the vaginal cut (episiotomy) during delivery without informing you of their reason for doing so and/or did they suture you without local anesthesia?	0=No/1=Yes
Were you prevented from seeing, holding or breastfeeding your baby, immediately after delivery without being informed of the reason for the delay?	0=No/1=Yes
Were you given any contraceptive method or operated on, or sterilized without your consent in order to no longer have children (tubal ligation or other)?	0=No/1=Yes
Were you pressured into agreeing to have a device or surgery to stop having children?	0=No/1=Yes
Were you asked for someone else's authorization to perform a sterilization (ligation)?	0=No/1=Yes

Table 2 shows the results of the validity and reliability tests. Here we observe that the total number of items is 4, in addition, the average inter-item correlation is 0.833. That is, we observe that there is a high correlation between the 13 items, so that we can see that the items are highly correlated and explain our index in a good way. Cronbach's alpha also shows an acceptable level, since it presents a value of 0.864. The Kayser Meyer Olin (KMO) statistic shows a high level. The KMO takes values between 0 and 1, and small values indicate that, in general, the variables have too little in common to justify a PCA analysis. In our case, we observed that our 13 items considered for analysis have a lot in common. We also note that Bartlett's test is significant, indicating that the items are good measures for constructing the obstetric violence index.

Table 2. Results of the sample reliability and validity test.

Test	Obstetric violence index	
Number of items	13	
Average interitem correlation	0.874	
Cronbach's alpha	0.842	
Kayser Meyer Olin measure (KMO)	0.865	
Bartlett's test	Chi square	3.65e+05
	df	22
	Sig.	0.000

Table 3 shows the results of the factor loadings from principal component analysis. Here we can observe each of the items used to construct our obstetric violence index. We observe that the factor loadings are high, meaning that each item contributes significantly to the constructed index. Furthermore, we observe that all our 11 items explain 81% of the variance, suggesting that our index has a large variance explained through each item used to construct it.

Table 3. Results of the principal component analysis.

Variable	Factor loadings
KMO= 0.853	
Did they yell at her, scold her, insult her, criticize her, humiliate her or threaten not to attend to her because she was complaining so much?	0.850
Did they ignore you or refuse to provide you with information during labor, postpartum?	0.825
Were you asked or required to have your pubic region shaved or bowel washed (enema)?	0.789
Were you denied any alternative to reduce pain without explanation?	0.867
Were you forbidden to have a companion during labor and postpartum?	0.850
During labor, were you forced to stay in a position that was uncomfortable or uncomfortable for you?	0.865
Were you touched repeatedly and by different people without your consent and/or information?	0.745
Did they press on your abdomen or put you on any medication to speed up labor?	0.824
Did they perform the vaginal cut (episiotomy) during delivery without informing you of their reason for doing so and/or did they suture you without local anesthesia?	0.854
Were you prevented from seeing, holding or breastfeeding your baby, immediately after delivery without being informed of the reason for the delay?	0.821

Were you given any contraceptive method or operated on, or sterilized without your consent in order to no longer have children (tubal ligation or other)?	0.798
Were you pressured into agreeing to have a device or surgery to stop having children?	0.865
Were you asked for someone else's authorization to perform a sterilization (ligation)?	0.898
<i>Variance explained</i>	86%

To complement the analysis, we performed exploratory statistics on the items previously used. **Table 4** shows the percentages of women who reported that they suffered violence of some kind according to each question in the questionnaire. For example, we observed that 83.23% of women reported that they were pressured in the abdomen or were given medication to accelerate labor. In addition, 78.21% of women reported that they were prevented from having a companion during labor.

Table.4 Percentage of women who received some type of violence

Variable	Percent
Did they yell at her, scold her, insult her, criticize her, humiliate her or threaten not to attend to her because she was complaining so much?	74.32%
Were you ignored or refused to provide information during labor, delivery, postpartum?	71.12%
Were you asked or required to have your pubic region shaved or bowel washed (enema)?	62.23%
Were you denied any alternative to reduce pain without explanation?	61.56%
Were you prohibited from having a companion during labor and postpartum?	78.21%
During labor, were you forced to stay in a position that was uncomfortable or uncomfortable for you?	68.11%
Were you touched repeatedly and by different people without your consent and/or information?	77.43%
Did they press on your abdomen or put you on any medication to speed up labor?	83.23%
Did they perform the vaginal cut (episiotomy) during delivery without informing you of their reason for doing so and/or did they suture you without local anesthesia?	59.23%
Were you prevented from seeing, holding or breastfeeding your baby, immediately after delivery without being informed of the reason for the delay?	57.32%
Were you given any contraceptive method or operated on, or sterilized without your consent in order to no longer have children (tubal ligation or other)?	35.12%
Were you pressured into agreeing to have a device or surgery to stop having children?	26.12%
Were you asked for someone else's authorization to perform a sterilization (ligation)?	17.14%

Table 5 presents the descriptive statistics of the variables used in this study. Here we observe that the average of our obstetric violence index is 0.79, i.e. it is high. This is evidence that the vast majority of women have reported that they suffered some type of obstetric violence. Regarding our independent variable of interest, we have observed that 81.03% of women are of mestizo ethnicity, while 7.1% are indigenous. Regarding the characteristics of the mother, 42.7% are women from the coastal region and 81.03% are mestizo women. It is also reported that 43.4% of the mothers have an intermediate education (high school) and 71.3% are urban women. In addition, 70.4% of the mothers reported that they had prenatal checkups in the health facilities of the Ministry of Public Health (MSP). 88.5% of the mother's report that they consume micronutrients daily and 80.3% report that they consume micronutrients such as iron plus folic acid. Interestingly, 80.5% and 78.9% of mothers reported that they received micronutrient intake counseling and counseling on risk signs, respectively. Also, 53.1% of the mothers reported that they had a normal delivery. Likewise, when looking at the territorial variables we observe that on average there are 151 inhabitants per square kilometer, the average per capita production (GVA) is \$1297 USD and 59.33% live in the urban area. These descriptive statistics reveal important patterns of the individuals considered in this study.

Table 5. Descriptive statistics of the variables used in this study.

Variable	Mean-Percent	Min	Max	95% CI
Obstetric violence				
Obstetricviolenceindex	0.79	0.13	0.97	0.77-0.81
Woman's ethnicity				
Indigenous	7.1%	0	1	6.6-7.28
Afro-Ecuadorian	5.3%	0	1	4.90-5.98
Mongrel	81.03%	0	1	80.22-81.86
White	1.4%	0	1	1.2-1.9
Montubio or Others	4.6%	0	1	4-5.1
Region of origin of the woman				
Sierra	38.5%	0	1	38-39

Costa	42.7%	0	1	41.21-43.09
Amazon	16.3%	0	1	15.98-17.01
Galapagos	2%	0	1	1.96-2.51
Income				
Labor income	412	25	3456	405-419
Number of children				
Number of children in the household	4	0	10	3.1-4.9
Marital status				
Single	37.1%	0	1	36.6-37.28
Married	15.3%	0	1	14.90-15.98
Divorced	22.03%	0	1	20.22-23.86
Widow	1.4%	0	1	1.2-1.9
Women's educational level				
None	0.7%	0	1	0.3-1.1
Basic Education	27.3%	0	1	27.1-28.3
Middle/High School Education	43.4%	0	1	43.41-44.12
Higher Education	27.1%	0	1	26.87-27.98
Residential area				
Urban Area	71.3%	0	1	70.3-72.1
Place where prenatal checkups were performed				
Place where prenatal check-ups were performed (HPM health facilities)	70.4%	0	1	69.76-71.92
Did you receive advice on risk signs?				
Did you receive advice on micronutrients? (yes=1)	78.9%	0	1	77.3-79.1
Type of delivery				
Normal delivery	53.1%	0	1	52.1-53.5
Urban density				
Inhabitants per square kilometer	151.01	1152.5	321	146.32-160.33
Economic development of the province				
Provincial GVA per capita	1297.65	540.5	321	836.43-1456.67

Next, we performed a formal test to rule out the presence of multicollinearity among our independent variables. In **Table 6** we present a multicollinearity analysis. We use the Variance Inflation Factor (VIF) to perform this test. Previous literature indicates that a VIF greater than 5 can demonstrate that multicollinearity exists in our data. As we can see, no variable has a VIF greater than 5, so we rule out multicollinearity problems in our independent variables. This analysis is important since multicollinearity problems cause instability of the parameters of a regression, incorrect signs and higher standard errors, which translates into statistical insignificance of the parameters.

Table 6. Multicollinearity test of the variables

Variable	VIF	SQRT VIF	Tolerance	R-Squared
Mother's ethnicity	1.22	2.81	0.9913	0.0032
Region of origin of the woman	1.33	1.86	0.6125	0.3355
Income	1.98	1.65	0.9862	0.0236
Number of children at home	1.63	1.11	0.8865	0.2097
Marital status	1.68	1.09	0.3533	0.1218
Women's educational level	1.25	1.33	0.3321	0.1189
Residential area	1.98	1.65	0.9862	0.0236
Place where prenatal checkups were performed	1.33	1.68	0.8826	0.2252
Did you receive advice on micronutrients?	1.22	1.85	0.6310	0.3690
Did you receive advice on risk signs?	1.57	1.85	0.6310	0.3690

Typeofdelivery	1.63	1.11	0.8865	0.2097
Urban density	1.68	1.09	0.3533	0.1218
Economic development of the province	1.33	1.68	0.8826	0.2252
Mean VIF	1.86			

Then, the confusion matrix of the model is shown. In **Table 7** we can see that the estimated model is correctly specified. In the first model we use obstetric violence as the dependent variable, which is 71.22% specified by the independent variables. That is, the independent variables predict obstetric violence in 71.22% of the cases. It is worth mentioning that this percentage is relatively high, being an acceptable level higher than 60%.

Table 7. Confusion matrix of the estimated models

ObstetricViolenceModel			
Classified	True		Total
	D	~D	
	1281	523	4736
	1115	303	2518
Total	4288	2966	7254
Correctlyclassified			78.22%

Next, to further explore this proposed relationship, we use a quantile regression model shown in **Table 8**. In the table, the dependent variable is the obstetric violence index variable which takes a value closer to 1 if a woman experienced greater obstetric violence and takes a value closer to 0 if the woman experienced less obstetric violence. Here we observe that, indeed, ethnicity is a significant predictor of obstetric violence. For example, we observe that being an Afro-Ecuadorian woman has a positive relationship with obstetric violence compared to mestizo women. Likewise, indigenous and montubio women have a higher propensity to suffer obstetric violence compared to mestizo women. A very interesting result is that there is a heterogeneous impact of ethnicity on obstetric violence. We observe that in the 0.10 and 0.25 quantiles there are coefficients of lower magnitude than in the 0.75 and 0.90 quantiles. This means that ethnicity positively affects more indigenous, Afro-Ecuadorian and Montubio women who received more obstetric violence than mestizo women. Other significant variables are the mother's region of origin and labor income, which shows a negative sign. That is, a higher income reduces perceived obstetric violence. The marital status of the woman is also a significant variable in their categories. For example, in almost all cases, married, divorced or widowed women have a higher propensity to suffer obstetric violence compared to single women. The educational level of the woman is also key. In general, we observed that women with lower levels of schooling suffer greater obstetric violence. We also observed that women who have had check-ups at health centers (use public health services) are more likely to suffer obstetric violence. Another interesting variable is that women who reported a normal delivery also had a higher propensity to greater obstetric violence. Finally, we observed that higher urban density and greater economic development of the province negatively predict obstetric violence. That is, women who live in larger and more economically developed cities have a lower probability of receiving obstetric violence.

Table 8. Quantile regression between the rate of obstetric violence and women's ethnicity

	Dep Var: Obstetricviolenceindex				
	Q(0.10)	Q(0.25)	Q(0.50)	Q(0.75)	Q(0.90)
	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE
Woman's ethnicity					
Mongrel	Ref.	Ref.	Ref.	Ref.	Ref.
Afro-Ecuadorian	0.014** (0.005)	0.010** (0.008)	0.011** (0.011)	0.099* (0.004)	0.154 (0.011)
Indigenous	0.032*** (0.001)	0.041*** (0.000)	0.032*** (0.000)	0.041*** (0.000)	0.032*** (0.000)
White	-0.103* (0.105)	-0.250*** (0.037)	-0.230*** (0.035)	-0.250*** (0.037)	-0.230*** (0.035)
Montubio or Others	0.012** (0.006)	0.004 (0.004)	0.006* (0.002)	0.005 (0.004)	0.006* (0.002)
Region of origin of the woman					
Sierra	Ref.	Ref.	Ref.	Ref.	Ref.
Costa	0.032*** (0.001)	0.041*** (0.000)	0.032*** (0.000)	0.041*** (0.000)	0.032*** (0.000)
Amazon	-0.105* (0.006)	-0.298*** (0.000)	-0.280*** (0.000)	-0.298*** (0.000)	-0.280*** (0.000)

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	(0.054)	(0.019)	(0.018)	(0.019)	(0.018)
Galapagos	0.084*** (0.017)	0.018*** (0.001)	0.020*** (0.001)	0.018*** (0.001)	0.020*** (0.001)
Income					
Labor income	-0.260 (0.205)	-0.328*** (0.058)	-0.273*** (0.055)	-0.328*** (0.058)	-0.273*** (0.055)
Numberofchildren					
Number of children at home	0.325 (0.167)	0.212*** (0.071)	0.277*** (0.056)	0.412*** (0.59)	0.121*** (0.063)
Marital status					
Single	Ref.	Ref.	Ref.	Ref.	Ref.
Married	0.103* (0.105)	0.250*** (0.037)	0.230*** (0.035)	0.250*** (0.037)	0.230*** (0.035)
Divorced	0.212 (0.346)	0.310*** (0.077)	0.277*** (0.074)	0.310*** (0.077)	0.277*** (0.074)
Widow	0.191 (0.196)	0.245*** (0.059)	0.204*** (0.056)	0.245*** (0.059)	0.204*** (0.056)
Women'seducationallevel					
None					
Basic Education	-0.013 (0.008)	-0.000 (0.001)	-0.001* (0.000)	-0.000 (0.001)	-0.001* (0.000)
Middle/High School Education	-0.191 (0.196)	-0.245*** (0.059)	-0.204*** (0.056)	-0.245*** (0.059)	-0.204*** (0.056)
Higher Education	-0.013* (0.003)	-0.002* (0.001)	-0.003* (0.001)	-0.002* (0.001)	-0.003* (0.001)
Residential area					
Rural	Ref.	Ref.	Ref.	Ref.	Ref.
Urban Area	-0.564*** (0.102)	-0.251*** (0.025)	-0.306*** (0.022)	-0.251*** (0.025)	-0.306*** (0.022)
Place where prenatal checkups were performed					
Health facilities of the MOH	0.014*** (0.009)	0.031*** (0.008)	0.025*** (0.004)	0.031*** (0.008)	0.025*** (0.004)
Did you receive advice on risk signs?					
No					
Did you receive advice on micronutrients? (yes=1)	-0.027*** (0.007)	-0.026*** (0.007)	-0.026*** (0.007)	-0.026*** (0.007)	-0.026*** (0.007)
Typeofdelivery					
Cesarea					
Normal delivery	0.030 (0.067)	0.109*** (0.021)	0.103*** (0.020)	0.109*** (0.021)	0.103*** (0.020)
Urban density					
Inhabitants per squarekilometer	-0.027*** (0.007)	-0.026*** (0.007)	-0.015*** (0.003)	-0.026*** (0.007)	-0.015*** (0.003)
Economic development of the province					
Provincial GVA per capita	-0.012*** (0.003)	-0.018*** (0.006)	-0.022*** (0.007)	-0.018*** (0.006)	-0.022*** (0.007)
Constant	-0.247 (0.344)	-1.771*** (0.079)	-1.871*** (0.072)	-1.771*** (0.079)	-1.871*** (0.072)
Observations	8,534	8,534	8,534	8,534	8,534
Pseudo R ²	0.055	0.048	0.069	0.048	0.069
Dummy region	YES	YES	YES	YES	YES

Asterisks mean: *p < 0.05, **p < 0.01, ***p < 0.001.

IV. Discussion

During the development of this study, the results obtained allow us to affirm that several health care practices performed on women during labor and immediate postpartum, such as: vaginal touching, episiotomy, early attachment, information provided to the woman and administration of oxytocin for the conduction of labor are more frequently linked to situations of violence.

Our results show that the average of our obstetric violence index is 0.79, which is too high, which is evidence that the vast majority of Ecuadorian women reported that they had suffered some type of obstetric violence. In addition, it was found that 70.4% of the mothers reported that they had prenatal check-ups in the health facilities of the Ministry of Public Health (MSP) and that they received some type of violence, results that coincide with the study carried out in three hospitals in Ecuador, where it was found that 62.67% suffered violence at the time of delivery in a public hospital.¹⁸

Regarding our independent variable of interest, we observe that 81.03% of women are of mestizo ethnicity, while 7.1% are indigenous. Regarding the characteristics of the mother, 42.7% are women from the

coastal region and 81.03% are mestizo women. It is also reported that 43.4% of the mothers have a high school education and 71.3% are women from the urban area. In addition, another interesting finding is that being an Afro-Ecuadorian woman has a positive relationship with obstetric violence compared to mestizo women. Likewise, indigenous and montubio women have a higher propensity to suffer obstetric violence compared to mestizo women. A very interesting result is that there is a heterogeneous impact of ethnicity on obstetric violence. We observe that in the 0.10 and 0.25 quantiles there are coefficients of lower magnitude than in the 0.75 and 0.90 quantiles. This means that ethnicity positively affects more indigenous, Afro-Ecuadorian and Montubio women who received more obstetric violence than mestizo women. Other significant variables are the mother's region of origin and labor income, which shows a negative sign. That is, a higher income reduces perceived obstetric violence. The marital status of the woman is also a significant variable in their categories. For example, in almost all cases, married, divorced or widowed women have a higher propensity to suffer obstetric violence compared to single women. The educational level of the woman is also key. In general, we observed that women with lower levels of schooling suffer greater obstetric violence. We also observed that women who have had check-ups at health centers (use public health services) are more likely to suffer obstetric violence. Another interesting variable is that women who reported a normal delivery also had a higher propensity to greater obstetric violence. The results of this study can be compared with those reported in the literature on the subject have been evidenced in other Ecuadorian studies where it was possible to determine a high prevalence of gynecological violence in women residing in rural areas (90%), Kichwas (76.67%), free union (63.33%), housewives (70.00%) of secondary education (76.67%), and women with a high school education (76.67%).¹⁹.

Another interesting result in our study was that when asked the question "Were you touched repeatedly and by different persons without your consent and/or information?", 77.43% reported this type of abuse in relation to vaginal touching. Thus, in this study it was observed that all the vaginal exams performed on the women during their stay in the service were done in short periods in relation to what was recommended: a vaginal exam every four hours from the beginning of dilatation until completing five centimeters and then an exam every two hours according to the evolution of the woman. In addition, they were performed by several members of the health team, including physicians and rotating interns. For Terán (2013), it is difficult to establish a specific number of vaginal examinations to avoid causing discomfort or excessive pain to the woman in hospitals where undergraduate or graduate teaching is performed.²⁰. Another study found that three out of five women underwent repeated vaginal examinations by several members of the health care team.¹²The authors indicate that this practice should be supervised by qualified medical personnel and "not left in the hands of trainees".

Informed consent has been reduced to the signing of a form that is not used correctly, due to the limited information provided and the use of words that are incomprehensible to the woman. For Faneite, Feo and Toro (2012), consent consists of informing the patient about the implications of the practices that will be performed during the care, the different treatments, the risks or consequences that could occur, allowing the woman to make free, consensual and autonomous decisions⁴. Another important result that became evident was that 71.12% of the women stated that they were denied information during labor, and 35.12% stated that they were sterilized, operated on or given a contraceptive device without informed consent. In the study carried out by Terán (2013), seven out of ten women were not asked for their consent for the different care practices, a situation that decreases in countries such as Venezuela due to the Organic Law on the Right of Women to a Life Free of Violence, a law that allows sanctioning professionals who perform practices without the express consent of the woman.²⁰.

On the other hand, the indifference to pain expressed by women during the different care practices was observed in 61.56% who said that they were denied any alternative to reduce pain at the time of delivery, before this a group of researchers Pintado, Penagos and Casas (2015), describe the indifference to pain as another form of obstetric violence²¹. In this study it was reported that 83.23% of women stated that they were pressured in the abdomen and some medication was used to accelerate labor, on this point several studies agree with the findings, since more than half of the women interviewed were administered oxytocin to accelerate labor.¹²In all these studies, none of the women were asked for their consent prior to administration. This point generates great controversy among health professionals, since oxytocin is a drug of "great help" (Terán, 2013) during labor care, so its action is not questioned, but its problem lies in the fact that in many cases its administration is not under technical justification in reference to what is recommended in the clinical practice guidelines issued by the Ministry of Health of Ecuador. It also lies in its use without the woman's consent, since the professional who prescribes and administers it should take the time to inform the woman about the need for its administration, its effects and possible complications.

The lack of certain practices such as early attachment and the constant use of epithets such as "mamita", "mami" or "corazoncito" during the woman's care, are fundamental to consider the care provided by the professional as not dignified.32% of women stated that they were not allowed to see, hold or breastfeed their

baby without information explaining this fact and also 74.32% women reported that they were yelled at, insulted, humiliated for complaining of pain, in the study of Terán (2013), it was reported that one in four women was not allowed to perform early attachment and all of them were not informed of the reason for the impediment²⁰.

However, professionals have opted to look for alternatives that help to reduce the problem with the use of strategies such as: humanized childbirth, accompaniment and free position. Strategies that have been demonstrated and endorsed in different studies as the main point to reduce the problem, because they allow the "continuity of care and the full participation of women in their childbirth experience".¹⁵ In this study it was observed that, although these strategies are used, they are not carried out in the correct way, since the professional allows accompaniment, knows the different positions in which labor can be carried out, they do not inform or indicate to the woman which would be the most appropriate position for each one of them, since in our study we found that 0.85 stated that they were forbidden to be with a companion during labor and 0.86 stated that they were forced to be in an uncomfortable position during labor. Finally, this study generates knowledge that will allow us to work in the search for safer, more effective and duplicable strategies to reduce the routine care practices that generate a constant cycle of obstetric violence.

V. Conclusion

Obstetric violence portrays a violation of human rights and a serious public health problem, revealed in the negligent, imprudent, omissive, discriminatory and disrespectful acts practiced by health professionals and legitimized by symbolic power relations that naturalize and trivialize its occurrence. This study shows the need to inform women about what is appropriate at the time of prenatal care and childbirth; only with this information, they will be able to identify forms of violence expressed by health personnel, and thus prevent them from becoming invisible, due to the silence of those affected. On the other hand, the continuity of these practices should be reflected in the training programs of human resources in health, since excessive medicalization contravenes the principles of bioethics.

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