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| RESEARCH ARTICLE

Obstetric Violence and its Impact on the Mental Well-being of Ecuadorian women: A Quantitative Approach

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| ABSTRACT

Obstetric violence refers to certain practices and behaviors carried out by health professionals towards women that belittle, violate and oppress them during pregnancy, childbirth and puerperium, whether in public or private settings. This type of violence is interpreted as a form of gender discrimination and represents a violation of human rights that has a direct impact on women's mental well-being. It manifests itself mainly as an inequality of power between healthcare professionals and pregnant women, whether during childbirth or the puerperium. The World Health Organization has stressed the importance of eliminating these harmful medical practices, urging medical personnel to react appropriately through dialogue and support for pregnant women. A nationally representative sample of women aged 12 years and older from the 2018 National Health and Nutrition Survey was used. Multicollinearity tests were used to avoid redundant information in the models. Next, we used factor analysis to generate an index of obstetric violence and performed linear regressions to observe the correlation between obstetric violence and mental well-being of women in our sample. Finally, we addressed the heterogeneity observed in the proposed relationship by using quantile regression techniques to disentangle the heterogeneous relationship in the distribution of mental well-being and obtain correlation coefficients, with their 95% confidence intervals (95% CI). Based on our findings, we highlight the urgent need to raise awareness and sensitize health professionals about this specific problem, since our main result indicates that there is a misleading correlation between obstetric violence and women's mental well-being. It is crucial to modify those health practices that violate women's rights. Another significant measure to improve the current situation would be the implementation of programs that give visibility to gender violence in the health sector, as well as the promotion of research focused on obstetric violence and the implementation of interventions that strengthen the autonomy of users.

| KEYWORDS

Obstetric Violence, Women, Mental Well-being.

| ARTICLE INFORMATION

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1. Introduction

Although we recognize that childbirth is a natural and physiological process experienced by all women of reproductive age, it is essential to emphasize that they have the right to receive dignified care without discrimination. Obstetric violence manifests itself during women's health care during pregnancy, childbirth and postpartum, both in public and private health services. This form of

violence is defined as any action or omission on the part of National Health System personnel that causes physical and/or psychological harm to women during pregnancy, childbirth and the postpartum period. This translates into deprivation of access to reproductive health services, cruel, inhuman or degrading treatment, or abuse of medicalization, which undermines the woman's ability to make free and informed decisions about her reproductive processes. According to (Castrillo, 2016) obstetric violence can manifest itself in various ways, such as manipulation of information on health status, scolding, delays in care, indifference to pain, omission of the woman's consent and the use of her experience as didactic material during care.

Gender-based violence is a reality that affects millions of women around the world and constitutes a violation of their human rights. In 1996, the World Health Organization (WHO) recognized this problem as a public health issue with significant dimensions, according to the article by Díaz-Díaz et al. (2022). Obstetric violence, experienced in health service settings, emerges as a frequent form of transgression that violates women's human, sexual and reproductive rights, emerging as a serious public health problem with mainly physical and psychological repercussions, as highlighted in the study by (Pereira et al., 2015). This type of violence continues to be evidenced today, without its seriousness being fully perceived.

Obstetric violence has been transmitted from generation to generation by health personnel, making medical care the starting point for violating patients' fundamental rights. Consequently, this form of violence originates mainly as a result of poor medical practices applied by health personnel. According to (Jardim & Modena, 2018), this significant problem, which undermines the integrity of women, has remained invisible due to the silence that prevails among the actors involved, such as health professionals, patients and their families. This lack of visibility has prevented recognition of the true seriousness and magnitude of the problem. (Al Adib Mendiri et al., 2017) argues that the term "Obstetric Violence" emerged deliberately as an act to address problematic practices that have been hidden, invisibilized and unrecognized as another form of violence towards women.

Some studies point out that routine medical practices cause women to lose autonomy and decision-making capacity over their own bodies and sexual rights, making childbirth care processes safe for health personnel but not necessarily for women. (Villegas Poljak, 2009).. These practices, which go beyond the guidelines established in the Clinical Practice Guidelines for the care of pregnant women issued by the Ministry of Public Health of Ecuador, include procedures such as episiotomies, alteration of the natural process of childbirth through the administration of oxytocin, shaving of pubic hair, application of enemas, obstetric examination, vaginal tactos, imposition of the supine position for childbirth without the free and informed consent of the patients, obstruction of early attachment without justified medical cause, practice of cesarean sections without justified medical conditions, and lack of timely attention to obstetric emergencies. These practices intimidate, degrade, and oppress women during reproductive care (Díaz-Díaz et al., 2022)..

These actions, combined with economic or educational disparities compared to health professionals, distance to care facilities and associated costs, lead women and their families to avoid seeking professional obstetric care, discouraging the choice of institutional delivery and increasing the risk of maternal or neonatal death. According to Rodriguez & Martinez (2022)one reason for the silence surrounding acts of violence during pregnancy, childbirth and puerperium care is that women often consider excessive medical practices during care to be normal, especially those who use free health services, and think that subjecting themselves to unkind treatment is inherent to the use of such care. The naturalization of these actions makes it difficult for raped women or their families to claim their rights, compounded by a lack of knowledge about their rights. In addition, health personnel often do not question the legitimacy of their practices, and together with the lack of knowledge of women's sexual and reproductive rights, contribute to a complex system of power relations during care between personnel and users of the services (Jojoa-Tobar et al., 2019)..

Several studies indicate that the actions and omissions of obstetricians, physicians and nurses can have serious consequences for women during childbirth. According to (Araujo-Cuauro, 2019), health professionals find it difficult to accept the terms "rape" or "violence" in relation to their actions in caring for patients. However, it is also common that these professionals, as well as patients, are traumatized by the dehumanizing way during childbirth care. Beck & Gable (2012) conducted a mixed study with nurses to assess the prevalence and severity of posttraumatic stress secondary to childbirth care. Several of the respondents claimed to have witnessed abusive deliveries and felt that they had failed patients by not advocating for them or questioning the actions of obstetricians during delivery care.

Rodríguez & Martínez (2022)emphasize that it is easy for women to identify and conceptualize the issue of obstetric violence. However, what is really crucial is that professionals recognize and understand the actions of obstetric violence. This recognition may be linked to the extreme medicalization of childbirth, which also leads to the denial of the more spiritual aspects of childbirth. Several reasons have been identified that influence professionals to generate violent actions, such as lack of training and technical skills to address the emotional and sexual aspects of childbirth, as well as the presence of unresolved trauma. In particular (Yslado Méndez et al., 2019), has observed a high rate of health professionals with burnout syndrome. Those who suffer from this syndrome and provide care during the prenatal, labor, delivery and puerperium stages tend to generate an even more dehumanized

treatment, thus contributing to an indefinite increase in the numbers of women experiencing traumatic births. In addition, studies have also identified that health personnel themselves have witnessed mistreatment of pregnant women, being exercised by 42.8% of physicians and 42.5% of nursing personnel. Likewise, 82.4% of the personnel are completely unaware of the term obstetric violence, and 72.6% lack knowledge of the reporting mechanisms associated with this problem.

In 2016, a debate on the Organic Law for Humanized Pregnancy, Childbirth and Postpartum Care was initiated in a certain context. This legislation aims to regulate health care benefits in order to institutionalize humanized childbirth care. Its purpose is to actively promote the participation of women, encourage their protagonism, respect the decisions they make about their bodies and their children, and promote the principles of the humanization of childbirth. It should be noted that this bill seeks to introduce, for the first time in Ecuador, a specific definition of obstetric violence. Despite these legislative advances, significant challenges persist due to the lack of knowledge about the care practices still carried out in the country. In addition, the lack of knowledge among both health professionals and women about obstetric violence hinders the formulation of effective strategies to highlight and reduce this problem.

The persistent exercise of obstetric violence has become one of the most invisible and naturalized transgressions during the care of pregnant women in health services. Routine practices have left a mark on the quality of services and on the health of women and their newborns. The treatment given to women, the position assigned to them in the birthing process, the level of accompaniment, privacy, the repetition of vaginal tact, the incorrect use of informed consent, the lack of empowerment of women during childbirth, the obstruction of early attachment without medical justification, the infantilization of women, depersonalization and unnecessary interventions have long been primary factors that violate women's human, sexual and reproductive rights (OlzaOlza-Fernandez, 2014).

It is essential to understand health professionals' perceptions of obstetric violence, as this not only provides insight into the ideas that prevail among this group, but also helps to define strategies to address and reduce this problem. Health care to pregnant women has become a conducive avenue for the use of violence by health personnel toward those seeking medical care. The use of insults and the application of routine medical practices not only affect the perception of the quality of services, but also have direct repercussions on the health of mothers and newborns. The continued practice of obstetric violence, the lack of training in technical skills to address the emotional and sexual aspects of childbirth, and the lack of knowledge about sexual and reproductive rights have had serious consequences on the health of women and their newborns over time.

The purpose of this work is to contribute to the construction of information on the perception of health personnel and patients, as well as on health care practices during labor, delivery and immediate puerperium, which are considered to be violent. The objective is to break the vicious circle and address the issue in order to determine strategies to reduce this persistent problem.

2. Methodology

2.1 Survey and Population

We used cross-sectional data obtained from the 2019 National Health and Nutrition Survey (ENSANUT), whose data were obtained and presented by the National Institute of Statistics and Census (INEC). After cleaning the database, a total of 8812 women were obtained.

2.2 Source of Information

ENSANUT 2019 is a survey that uses probability sampling, whose target population is women in the 24 provinces of Ecuador. The ENSANUT 2019 includes the F2 form for women, 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.

2.3 Study Variables

Our dependent variable is women's self-reported mental well-being. The information for this variable was obtained through the calculation made from the data provided in the F2 form. In our independent variable of interest is an index of obstetric violence constructed from a factor analysis using some questions from the survey. The questions and the original coding of the variables used to construct this index are shown in **Table 1**.

2.4 Inclusion and Exclusion Criteria

Females under 12 years of age, males, and women with incomes over $4,000 were excluded.

2.5 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.

2.6 Statistical Analysis

The ENSANUT 2019 survey database was analyzed with the statistical package Stata v15 (Stata Corporation, College Station, Texas, USA). A value of $p<0.05$ was considered to determine statistical significance between variables. The association was evaluated using discrete choice models such as the ordered probit model to calculate the marginal effects, which are interpreted as probabilities, together with their respective 95% confidence intervals for each of the variables included in the study. In order to estimate the relationship between obstetric violence and the mental well-being of Ecuadorian women, we propose the following linear regression model:

$$Mental\ Well\ being_i = \beta_0 + \beta_1 X_i + \sum_{j=2}^{12} \beta_j Z_i + \varepsilon_i \quad (1).$$

Where $Mental\ Well\ being_i$ represents women's mental well-being, X_i represents women's self-reported obstetric violence (measured by a weighted composite index), 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. This approach helps us to explain the effect of different determinants of the dependent variable at the extremes of the distribution of the dependent variable. Thus, QR is the appropriate methodology to test whether any determinant has a heterogeneous effect on the entire distribution of mental well-being. By applying the QR approach equation (1) can be rewritten as:

$$Mental\ Well\ being_i = \beta_{0q} + \beta_{1q} X_i + \sum_{j=2}^{12} \beta_{jq} Z_i + \varepsilon_i \quad (2).$$

Where now the β_1 now varies by quantile, the commonly used quantiles are the 0.10; 0.25; 0.50; 0.75; 0.90 quantiles. This helps us to explore the heterogeneity within each quantile of the distribution of the dependent variable.

3. Results

First, 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, so 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.

Table 1. ENSANUT questions and coding

ENSANUT 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
Were you ignored or refused to provide information during labor, delivery, 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. Crombach'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 Barlet'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.

KMO= 0.846 **Variable**		**Obstetric violence index**
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
Were you ignored or refused to provide information during labor, delivery, 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
Variance explained		*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 mental well-being is 3.05 and the average of our obstetric violence index is 0.79, i.e. it is high. This fact 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 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
Mental Well-Being				
Likert Mental Well-Being Scale	3.05	1	5	2.33-4.02
Obstetric violence				
Obstetric violence index	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
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	2	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 Inflator 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, thus 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**
Obstetric violence index	1.12	1.53	0.6734	0.9832
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
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
Type of delivery	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 mental well-being as the dependent variable, which is 81.33% specified by the independent variables. That is, the independent variables predict mental well-being in 81.33% 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

Mental well-being model						
True						
Classified		D		~D		Total
		1281		523		2883
		1115		303		5651
Total		4288		2966		8534
Correctly classified						81.33%

In **Table 8** we present the marginal effects of the ordered probit model. We performed a sensitivity analysis and estimated five models. Here we can observe that as we add control variables the probability of having very good mental well-being decreases. That is, there is an upward bias, a bias that is mitigated when control variables are added. More specifically, in model 5 that includes all control variables we observe that a one standard deviation increase in the obstetric violence index reduces the probability of having very good mental well-being by 2.6%. In addition, we observe that variables such as mixedrace ethnicity have a negative probability of having very good mental well-being. We also observe that income positively predicts the probability of having very good mental well-being. Educational level also increases the probability of better mental health, as does living in urban areas, receiving micronutrient counseling, having a normal delivery, and living in more developed cantons. Whereas urban agglomerations and public health service negatively predict mental well-being.

Table 8. Marginal effects of the ordered probit model

		Dep Var: Mental Well-Being				
	M1	M2	M3	M4	M5
	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE
Obstetric Violence					
Obstetric violence index	-0.034**	-0.032**	-0.029**	-0.027*	-0.026*
	(0.005)	(0.008)	(0.011)	(0.004)	(0.011)
Woman's ethnicity					
Mongrel	Ref.	Ref.	Ref.	Ref.	Ref.
Afro-Ecuadorian	0.014**	0.010**	0.011**	0.099*	0.154
	(0.005)	(0.008)	(0.011)	(0.003)	(0.011)
Indigenous	-0.042***	-0.041***	-0.042***	-0.031***	-0.042***
	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)
White	0.104*	0.250***	0.240***	0.250***	0.240***
	(0.105)	(0.047)	(0.045)	(0.037)	(0.045)
Montubio or Others	0.012**	0.004	0.006*	0.005	0.006*
	(0.006)	(0.004)	(0.002)	(0.003)	(0.002)
Region of origin of the woman					
Sierra	Ref.	Ref.	Ref.	Ref.	Ref.
Costa	0.032***	0.041***	0.032***	0.041***	0.032***
	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)
Amazon	-0.105*	-0.298***	-0.280***	-0.298***	-0.280***
	(0.054)	(0.019)	(0.018)	(0.019)	(0.018)
Galapagos	0.084***	0.018***	0.020***	0.018***	0.020***

	(0.017)		(0.001)		(0.001)		(0.001)		(0.001)
Income								
Labor income	0.260		0.328***		0.273***		0.328***		0.273***
	(0.205)		(0.058)		(0.055)		(0.058)		(0.055)
Marital status								
Single			Ref.		Ref.		Ref.		Ref.
Married			0.250***		0.230***		0.250***		0.230***
			(0.037)		(0.035)		(0.037)		(0.035)
Divorced			0.310***		0.277***		0.310***		0.277***
			(0.077)		(0.074)		(0.077)		(0.074)
Widow			0.245***		0.204***		0.245***		0.204***
			(0.059)		(0.056)		(0.059)		(0.056)
Women's educational level								
None								
Basic Education					0.001*		0.000		0.001*
					(0.000)		(0.001)		(0.000)
Middle/High School Education					0.204***		0.245***		0.204***
					(0.056)		(0.059)		(0.056)
Higher Education					0.003*		0.002*		0.003*
					(0.001)		(0.001)		(0.001)
Residential area								
Rural					Ref.		Ref.		Ref.
Urban Area					0.306***		0.251***		0.306***
					(0.022)		(0.025)		(0.022)
Place where prenatal checkups were performed									
Health facilities of the MOH							-0.031***		-0.025***
							(0.008)		(0.004)
Did you receive advice on risk signs?									
No									
Did you receive advice on micronutrients? (yes=1)							0.026***		0.026***
							(0.007)		(0.007)
Type of delivery									
Cesarea									
Normal delivery									0.103***
									(0.020)
Urban density									
Inhabitants per square kilometer									-0.015***
									(0.003)
Economic development of the province									
Provincial GVA per capita									0.022***
									(0.007)
Constant									1.871***
									(0.072)
Observations	8,812		8,812		8,812		8,812		8,812
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.

Next, to further explore this proposed relationship, we use a quantile regression model seen in **Table 9**. In the table, the dependent variable is the mental well-being variable and the independent variable is the obstetric violence index which takes a value closer to 1 if a woman experienced more obstetric violence and takes a value closer to 0 if the woman experienced less obstetric violence. Here we observe that there is a heterogeneous impact between obstetric violence and mental well-being. We observe that there

is a U-type effect since at the extremes of the distribution Q0.10 and Q0.90 the correlation coefficients are higher than at Q0.50. This means that obstetric violence has a greater influence on women with lower and higher mental well-being. We also observed other variables of interest. For example, indigenous and montubio women have a lower propensity to have very good mental health compared to mestizo women. Other significant variables are the mother's region of origin and labor income, which shows a positive sign. That is, higher income increases perceived mental well-being. 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 have better mental well-being compared to single women. The educational level of the woman is also key. In general, we observe that women with higher levels of schooling have better mental well-being. We also observed that those women who have had check-ups at health centers (make use of public health services) are less likely to have very good mental well-being. In general, our results are in line with the results of the ordered probit model, but we observe heterogeneous impacts on the distribution of mental well-being, a fact that we would not have discovered without exploring the heterogeneity observed in the relationship studied.

Table 9 Quantile regression between mental well-being and obstetric violence index

	Dep Var: Mental Well-Being				
	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
Obstetric Violence					
Obstetric violence index	-0.022***	-0.021***	-0.019***	-0.024***	-0.026***
	(0.006)	(0.004)	(0.002)	(0.004)	(0.002)
Woman's ethnicity					
Mongrel	Ref.	Ref.	Ref.	Ref.	Ref.
Afro-Ecuadorian	0.014**	0.010**	0.011**	0.099*	0.154
	(0.005)	(0.008)	(0.011)	(0.004)	(0.011)
Indigenous	-0.032***	-0.041***	-0.032***	-0.041***	-0.032***
	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)
White	0.103*	0.250***	0.230***	0.250***	0.230***
	(0.105)	(0.037)	(0.035)	(0.037)	(0.035)
Montubio or Others	0.012**	0.004	0.006*	0.005	0.006*
	(0.006)	(0.004)	(0.002)	(0.004)	(0.002)
Region of origin of the woman					
Sierra	Ref.	Ref.	Ref.	Ref.	Ref.
Costa	0.032***	0.041***	0.032***	0.041***	0.032***
	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)
Amazon	-0.105*	-0.298***	-0.280***	-0.298***	-0.280***
	(0.054)	(0.019)	(0.018)	(0.019)	(0.018)
Galapagos	0.084***	0.018***	0.020***	0.018***	0.020***
	(0.017)	(0.001)	(0.001)	(0.001)	(0.001)
Income					
Labor income	0.260	0.328***	0.273***	0.328***	0.273***
	(0.205)	(0.058)	(0.055)	(0.058)	(0.055)
Marital status					
Single	Ref.	Ref.	Ref.	Ref.	Ref.
Married	0.103*	0.250***	0.230***	0.250***	0.230***
	(0.105)	(0.037)	(0.035)	(0.037)	(0.035)
Divorced	0.212	0.310***	0.277***	0.310***	0.277***
	(0.346)	(0.077)	(0.074)	(0.077)	(0.074)
Widow	0.191	0.245***	0.204***	0.245***	0.204***
	(0.196)	(0.059)	(0.056)	(0.059)	(0.056)
Women's educational level					
None					
Basic Education	0.013	0.000	0.001*	0.000	0.001*
	(0.008)	(0.001)	(0.000)	(0.001)	(0.000)
Middle/High School Education	0.191	0.245***	0.204***	0.245***	0.204***

	(0.196)		(0.059)		(0.056)		(0.059)		(0.056)
Higher Education	0.013*		0.002*		0.003*		0.002*		0.003*
	(0.003)		(0.001)		(0.001)		(0.001)		(0.001)
Residential area									
Rural	Ref.		Ref.		Ref.		Ref.		Ref.
Urban Area	-0.564***		-0.251***		-0.306***		-0.251***		-0.306***
	(0.102)		(0.025)		(0.022)		(0.025)		(0.022)
Place where prenatal checkups were performed									
Health facilities of the MOH	-0.014***		-0.031***		-0.025***		-0.031***		-0.025***
	(0.009)		(0.008)		(0.004)		(0.008)		(0.004)
Did you receive advice on risk signs?									
No									
Did you receive advice on micronutrients? (yes=1)	0.027***		0.026***		0.025***		0.026***		0.029***
	(0.007)		(0.007)		(0.009)		(0.010)		(0.013)
Type of delivery									
Cesarea									
Normal delivery	0.030		0.109***		0.103***		0.109***		0.103***
	(0.067)		(0.021)		(0.020)		(0.021)		(0.020)
Urban density									
Inhabitants per square kilometer	-0.027***		-0.026***		-0.015***		-0.026***		-0.015***
	(0.007)		(0.007)		(0.003)		(0.007)		(0.003)
Economic development of the province									
Provincial GVA per capita	0.012***		0.018***		0.022***		0.018***		0.022***
	(0.003)		(0.006)		(0.007)		(0.006)		(0.007)
Constant	-0.247		-1.771***		-1.871***		-1.771***		-1.871***
	(0.344)		(0.079)		(0.072)		(0.079)		(0.072)
Observations	8,812		8,534		8,534		8,534		8,534
Pseudo R^2	0.064		0.066		0.058		0.078		0.062
Dummy region	YES		YES		YES		YES		YES

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

4. 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 tact, 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.

In our results we can see that the average mental wellbeing is 3.05 and 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 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. A very interesting result is that we observed that variables such as mixed race ethnicity have a negative probability of having very good mental well-being. We also observed that income positively predicts the probability of having very good mental well-being. Educational level also increases the probability of better mental health, as does living in urban areas, receiving micronutrient counseling, having a normal delivery, and living in more developed cantons. Whereas urban agglomerations and public health service negatively predict mental well-being.

In conclusion, we observed that obstetric violence has a greater influence on women with lower and higher mental well-being. We also observed other variables of interest. For example, indigenous and montubio women have a lower propensity to have very good mental health compared to mestizo women. Other significant variables are the mother's region of origin and labor income, which shows a positive sign. That is, higher income increases perceived mental well-being. 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 have better mental well-being compared to single women. The educational level of the woman is also key. In general, we find that women with higher levels of schooling have better mental well-being.

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 care, the different treatments, the risks or consequences that could occur, allowing the woman to make free, consensual and autonomous decisions(Faneite et al., 2012).. Another important result that became evident is that 79.8% of the women stated that they were denied information during labor, and 89.8% stated that they were sterilized, operated on or given a contraceptive device without informed consent. In the study conducted 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 because it has 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 (Terán et al., 2013).

On the other hand, the indifference to pain expressed by women during the different care practices was observed in 86.7% who stated that they were denied any alternative to reduce pain at the time of delivery, a group of researchers Pintado, Penagos and Casas (2015), describe indifference to pain as another form of obstetric violence(Pintado-Cucarella et al., 2015).. 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 (Valdez-Santiago et al., 2015).(Valdez-Santiago et al., 2013).In 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 impediment (Terán et al., 2013).

However, professionals have opted to look for alternatives to help 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". (Fernandez, 2014). 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 performed, they do not inform or indicate to the woman which would be the most appropriate position for each of them, since in our study we evidenced that 0.85 stated that they were forbidden to be with a companion in labor and 0.86 stated that they were forced to be in an uncomfortable position in 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.

5. Conclusion

In conclusion, obstetric violence emerges as a problem that goes beyond medical issues, having a direct impact on women's mental well-being. Negligent, reckless and discriminatory acts perpetrated during prenatal care and childbirth not only constitute a violation of human rights, but also generate significant consequences for women's mental health. The experience of these practices can induce stress, anxiety and trauma, affecting the perception of well-being and generating long-term psychological sequelae. It is essential to address obstetric violence in a comprehensive manner, not only from a legal and ethical perspective, but also considering its impact on women's mental health, thus promoting more respectful, informed and empathetic care environments.

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