Article

Linguistic and Cultural Adaptation and Validation of the Instrument for Measuring Perceptions of Obstetric Violence*

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Contribution to the discipline: Linguistically and culturally adapting a tool developed in another country for people who do not speak the same language is a challenge that requires understanding that thought and culture manifest themselves differently in different contexts. The statistical validation of the instrument, adapted to another social context, allows us to verify that it measures what it was created to measure. Knowledge of nursing and medical students' perceptions of obstetric violence allows for the implementation of topics related to the prevention of obstetric violence and humanized childbirth in curricular programs.

Abstract

Introduction: Obstetric violence has recently been recognized in Ecuador as a type of gender-based violence against women during pregnancy, childbirth, or the postpartum period, affecting mothers, their children, families, and society in general. This study was conducted to justify the importance of including the topic of obstetric violence prevention in the training of health professionals in Ecuador. **Objective:** To linguistically and culturally adapt and validate the Perception of Obstetric Violence in Health Science Students (PercOV-S) instrument. **Materials and Method:** Methodological study of the adaptation of the instrument created in Spain, developed with the stages of linguistic review by the linguist, content review by eight key informants/experts and two students, and psychometric validation of data collected from 269 students. **Results:** After the changes, the original instrument retained the same number of items as the PercOV-S instrument, with 20 items of sociodemographic data and 33 items on the perception of obstetric violence, named PercOV-S-A. To validate the pilot test data, confirmatory factor analysis was performed, which explained 52.6% of the variance in three factors or domains: 1) Insensitive and cruel treatment; 2) Normalized violence; and 3) Neglect and manipulation. All factor loadings were greater than 0.42, except for two items. The internal reliability of the questionnaire, by domain, was greater than or equal to 95%. The overall score (3.42) on the PercOV-S-A scale, as well as the scores for the domains (3.53), (2.77), and (3.36), indicated a high perception of obstetric violence. **Conclusions:** The PercOV-S-A instrument is fully functional for its purpose, after being adapted and validated for the Ecuadorian context.

Keywords (Source: DeCS)
Obstetric violence; violence against women; humanized childbirth; validation study; nursing education; obstetric nursing.

Adaptación lingüística y cultural, y validación del instrumento para medir la percepción de violencia obstétrica*

* Este artículo es derivado de la tesis doctoral: *Adaptación lingüística y cultural y validación de la escala para medir la percepción de Violencia obstétrica en estudiantes - PERCOV-S*, presentada a la Universidade de São Paulo. Se encuentra disponible en: https://www.teses.usp.br/teses/disponiveis/7/7141/tde-02102024-132403/publico/version_final_tesis_kirsten_falcon.pdf

Resumen

Introducción: la violencia obstétrica ha sido reconocida en el Ecuador como un tipo de violencia de género en contra de la mujer durante el embarazo, parto o puerperio recientemente, que afecta a la mamá, su hijo, familia y a la sociedad en general. Debido a esto se realizó este estudio para justificar la importancia de incluir el tema de la prevención de violencia obstétrica durante la formación de los profesionales de salud en Ecuador. **Objetivo:** adaptar lingüística y culturalmente, y validar el instrumento Percepción de violencia obstétrica en estudiantes de ciencias de la salud (PercOV-S). **Materiales y Método:** estudio metodológico de adaptación del instrumento creado en España, realizado con las etapas de revisión idiomática por parte de la lingüista, revisión de contenido por ocho informantes-clave/expertos y dos estudiantes, y validación psicométrica de datos recogidos a 269 estudiantes. **Resultados:** después de los cambios, el instrumento original mantuvo igual número de ítems del instrumento PercOV-S, con 20 ítems de datos sociodemográficos y 33 de percepción de la violencia obstétrica, nombrado como PercOV-S-A. Para la validación de los datos de la prueba piloto, se realizó el análisis factorial confirmatorio, que explicó el 52,6 % de la varianza en tres factores o dominios: 1) Trato insensible y cruel; 2) Violencia normatizada, y 3) Negligencia y manipulación. Todas las cargas factoriales fueron superiores a 0,42, con excepción de dos ítems. La fiabilidad interna del cuestionario, por dominios, fue superior o igual al 95 %. La puntuación general (3,42) de la escala PercOV-S-A, así como la de los dominios (3,53), (2,77) y (3,36) indicaron una alta percepción de violencia obstétrica. **Conclusiones:** el instrumento PercOV-S-A es completamente funcional para su propósito, después de ser adaptado y validado para el contexto ecuatoriano.

Palabras clave (Fuente: DeCS)
Violencia obstétrica; violencia contra la mujer; parto humanizado; estudio de validación; educación en enfermería; enfermería obstétrica.

Adaptação linguística e cultural e validação do instrumento de mensuração da percepção da violência obstétrica*

* Este artigo é derivado da tese de doutorado "Adaptação linguística e cultural e validação da escala para medir a percepção da violência obstétrica em estudantes - PERCOV-S", apresentada à Universidade de São Paulo. Disponível em: https://www.teses.usp.br/teses/disponiveis/7/7141/tde-02102024-132403/publico/version_final_tesis_kirsten_falcon.pdf

Resumo

Introdução: A violência obstétrica foi recentemente reconhecida no Equador como uma forma de violência de gênero contra a mulher durante a gestação, o parto ou o puerpério, com impactos para a mãe, seu filho, a família e a sociedade. Diante disso, este estudo justifica a necessidade de incluir a prevenção da violência obstétrica na formação de profissionais de saúde no Equador. **Objetivo:** adaptar linguística e culturalmente, e validar o instrumento Percepção da Violência Obstétrica em Estudantes de Ciências da Saúde (PercOV-S) para o contexto equatoriano. Materiais e método: estudo metodológico de adaptação do instrumento originariamente desenvolvido na Espanha. Foram realizadas revisão linguística por linguista, avaliação de conteúdo por oito informantes-chave (especialistas) e dois estudantes, e validação psicométrica com dados de 269 estudantes. **Resultados:** Após as adequações, o instrumento manteve o mesmo número original de itens: 20 referentes a dados sociodemográficos e 33 à percepção da violência obstétrica, recebendo a denominação "PercOV-S-A". Para validar o teste-piloto, foi realizada análise fatorial confirmatória, que explicou 52,6 % da variância em três fatores ou domínios: 1) tratamento insensível e cruel; 2) violência normatizada; e 3) negligência e manipulação. Todas as cargas fatoriais foram maiores que 0,42, com exceção de dois itens. A confiabilidade interna do questionário, por domínio, foi igual ou maior a 95 %. O escore geral da escala PercOV-S-A foi 3,42, e os escores dos domínios foram 3,53; 2,77; e 3,36, indicando elevada percepção da violência obstétrica entre os participantes. **Conclusões:** O instrumento PercOV-S-A mostrou-se funcional para o contexto equatoriano, após ser adaptado e validado em termos linguísticos, culturais e psicométricos.

Palavras-chave (Fonte DeCS)
Violência obstétrica; violência contra a mulher; parto humanizado; estudo de validação; educação em enfermagem; enfermagem obstétrica.

Introduction

Thanks to advances in society and science, the process of childbirth has undergone significant changes compared to how it was understood in the early days of humanity. These changes have been driven by various perspectives and practices that, although they reduced maternal and neonatal mortality rates, transformed childbirth as a physiological phenomenon into a pathological procedure subject to extensive interventions (1-3).

Thus, childbirth, which used to take place in the home environment of the woman in labor until the early twentieth century, has now become a quantifiable element that contributes to the demand for beds in health units, the need for trained health personnel, the supply of specialized equipment, and, mainly, a series of actions and interventions that in many cases turn out to be unnecessary (4-7).

Some of the countless interventions used worldwide during childbirth care are standardized routine practices with no real clinical justification, without sufficient explanation to women, without informed consent, and are considered obstetric violence (8, 9). This is a type of gender-based violence against women during their reproductive stage, pregnancy, childbirth, or postpartum period, and it has repercussions on their families and, therefore, on society as a whole (1, 2, 6-8).

In recent decades, this violence has been described and classified in various ways; two issues seem to coincide in all studies: the first one, the loss of women's autonomy to decide, and the second one, the short- or long-term physical or psychological harm to them or their children (9-11).

The problem of mistreatment of women during pregnancy, childbirth, and the postpartum period by health personnel can be found in hostile attitudes and even denial. Those who advocate for respectful childbirth argue that the open use of the term obstetric violence facilitates the supervision and punishment of offenders, as well as transformations in health training and practice, in care procedures and processes, and even in relationships within the health system between healthcare personnel and women (9, 10, 12-15).

The education of health science students must change and evolve, moving away from rigor and hierarchy in the delivery room and understanding and viewing women as the protagonists of the event. Efforts must be made to promote ethical training, respect, and compliance with women's rights during childbirth. Professional education must be based on a thorough understanding not only of reproductive processes but also of women's sexual and vital processes, eradicating obstetric violence from the outset of training (5, 16-18).

In this regard, it is important to know the perspective of future health professionals on how they perceive obstetric violence. To this end, in 2019, a group of researchers from the School of Nursing at Jaume I

University in Spain designed and validated the instrument Perception of Obstetric Violence in Students (PercOV-S) (11, 19, 20).

Although the PercOV-S instrument is originally in Spanish, it was considered necessary to adapt it to the Spanish spoken in Ecuador for use in that country. This is because, although the linguistic substrate is common to both countries, each has its own social and cultural contexts (19).

Therefore, the objective of this study was to linguistically and culturally adapt and validate the PercOV-S instrument.

Methodology

Type of Study

This is a methodological study of the linguistic and cultural adaptation of an instrument for assessing the perception of obstetric violence in health science students.

In the case of the present study, in which the original language is the same, the process of linguistic and cultural adaptation seeks to find semantic similarities or equivalences between the original and the new version, considering the different social and cultural contexts, as well as the idiosyncratic characteristics of each country (21-23).

Various authors and institutions have made progress in the field of methodology and the translation and adaptation of instruments, covering both qualitative and quantitative approaches. Careful selection of optimal methods ensures the effectiveness of the adaptation process (21, 22, 24, 25).

The PercOV-S instrument

The original instrument consists of a short header, a sociodemographic data section with 20 items, and a perception section with 33 items, for a total of 53 items. The 33 items that measure perception are divided into two factors or domains that cover the stages: Before delivery, 13 items; during delivery, 11 items; cesarean section, 3 items; and after delivery, 6 items. The items are measured on a Likert scale (1 to 5), were written in positive terms, and give the highest score (5) to the highest perception of obstetric violence. Thus, the maximum score on the overall scale and in each of the two domains is 5 (five), meaning that the closer the average score is to 5, the higher the perception of obstetric violence (19, 26, 27).

Procedures

The methodological approach chosen consisted of four stages: 1) Linguistic harmonization of the language; 2) Consultation

with key informants; 3) Cognitive interview with health science students (21, 22). These three stages were carried out between November 2021 and June 2022. Stage 4) consisted of the pilot test for psychometric validation (28, 29) and was carried out between July and October 2022.

The procedures were as follows: 1) it was recommended that linguistic harmonization be conducted by an expert whose mother tongue is the language of the place where the instrument will be applied (21, 22), in this case, Ecuadorian Spanish. The expert linguist had to read each item, analyze it, and, if no changes were required, mark it with the letter A. For items that did require minor changes, such as adjusting the syntactic order of words while preserving the meaning, she marked them with the letter B and provided a suggestion on how to modify them. She marked items that required semantic or cultural changes with a C; in these cases, the expert had to indicate how she suggested rewriting them. For items that she considered inappropriate for the local context, she marked them with a D. In this way, the original version was reviewed, after which the first version of the instrument was obtained.

2) The second stage, adaptation, was conducted with eight key informants, or experts (24, 30, 31). For this study, experts and professionals in the field of health were considered, specializing in childbirth, especially humanized childbirth, who work on the subject or have researched it; six were doctors and two were professional nurses, all with fourth-level studies. It was considered important to choose people native to Ecuador who worked in the four regions: Coast, highlands, east, and Galapagos Islands, so that the terms used in the adaptation of the instrument would be understandable everywhere. The key informants provided additional information to that given by the linguist; because of this, this section of the research was considered qualitative, as it allowed the experts to write suggestions that they believed improved the new version. They were asked to use their judgment to choose between each item in its original version or the version drafted by the linguist, whichever they considered to be better understood by the target audience. Each key informant had to indicate with the letter the version of the item with which they agreed or mark O if they thought the item needed modification, i.e., when neither version seemed satisfactory to them. In such cases, they were asked to provide a suggestion on how it should be reworded. At the end of this stage, the second version of the instrument was obtained.

3) The third stage of this procedure was the cognitive interview, one of the most effective techniques for validating the content of existing instruments. The objective was to evaluate the meaning of the target audience's responses and determine whether the target population and the researcher shared the same concepts regarding the topics raised in the instrument (32). The interview was conducted with a nursing student and a medical student from two different universities. The technique used was the semi-structured interview

(21, 33), and each item of the instrument was reviewed with the following questions: What are your thoughts on this question? Can you articulate this question in your own words? What came to mind when you heard the question? After completing this stage in detail, no changes were made to the second version of the instrument, which was used for the final adaptation, which has the acronym PercOV-S-A.

4) The fourth stage was the pilot test for psychometric validation (28, 29, 34); for this, the adapted instrument was applied to a sample of 269 nursing and medical students from three universities in Ecuador. The instrument was uploaded in digital format and sent via a link to the students who voluntarily participated in the test.

Data Analysis

For the qualitative information obtained from key informants and student interviews, the following content analysis was performed (audio-recorded interviews were transcribed to facilitate analysis.)

In the pilot test, frequencies with absolute numbers and percentages were used for qualitative variables. For quantitative variables, the mean, standard deviation (SD), and 95% confidence intervals (CI) were used.

Initially, the normality of the data was analyzed using a visual technique with Q-Q plots, the Shapiro-Wilk test, and Mardia's contrasts. To review construct validity, a confirmatory factor analysis (CFA) was performed (29). After establishing the statistical assumptions, the Kaiser-Meyer-Olkin (KMO) and Bartlett tests were performed. Sequentially, CFA was performed using the unweighted least squares (ULS) method with Varimax rotation. This analysis was complemented with the chi-square test and the calculation of the root mean square error of approximation (RMSEA) (28, 35). To determine the reliability of the questionnaire, internal consistency was evaluated using Cronbach's alpha coefficient (α) and McDonald's omega coefficient (ω) (36, 37).

The analysis was performed using the Statistical Package for Social Sciences (SPSS) version 26 and JASP 0.17.2.1. A statistical significance level of $p < 0.05$ was established. The results are presented in tabular form.

Ethical Aspects

For the adaptation of the PercOV-S instrument, authorization was requested from the research group at Jaume I University, responsible for its creation and validation.

The project for this study was approved by the Human Research Ethics Committee and the Teaching Department of the Pontificia Universidad Católica of Ecuador, code EO-30-2021.

Nursing and medical students from three Ecuadorian universities participated in the pilot test. All participants invited to this study signed an informed consent form and were informed of the confidentiality under which their data would be kept.

Results

To adapt the instrument designed in Spanish from Spain to Spanish from Ecuador, several meetings were held with the linguist, who made a total of 10 changes to the original version. The experts made a total of 33 suggestions. The suggestions from the linguist and the eight experts were organized separately in an Excel file. All suggestions were placed in a single table and the format was applied to each part of the instrument (presentation, sociodemographic data and others – items 1 to 20; general perception – items 21 to 33; during childbirth – items 34 to 44; during cesarean section – items 45 to 47; after delivery – items 48 to 53). Table 1 shows an example of a change in the original version (~~crossed out~~), which resulted in the final version (**bold**) (version 2).

Table 1. Example of a Table with Suggestions from the Linguist and Key Informants 2021-2022

Instrument – Items 21 to 33 (example of items 21 to 25)	
Original version	Perception
	Assign a score from 1 (no obstetric violence) to 5 (a lot of obstetric violence), depending on the degree to which you consider the following actions to be obstetric violence.
	~~21. Inserting an intravenous line upon admission of pregnant women.~~
	~~22. To relieve pain, tell the woman the best position to lie in.~~
	23. Administering medication to speed up the delivery process.
	24. Administering an enema. (This involves introducing fluids into the rectum and colon through the anus so that the woman does not defecate when pushing during delivery).
	~~25. Artificially rupturing the amniotic sac to speed up the delivery process.~~
Version 2	Perception
	Assign a score from 1 (no obstetric violence) to 5 (a lot of obstetric violence), depending on the degree to which you consider the following actions to be obstetric violence.
	21. Inserting an intravenous line upon admission for all pregnant women.
	22. To relieve pain, tell the woman the best position to lie in.
	23. Administer medication to speed up the delivery process.
	24. Administer an enema. (This involves introducing fluids into the rectum and colon through the anus so that the woman does not defecate when pushing during delivery).
	25. Artificially rupture the amniotic membranes to speed up the delivery process.

Source: Prepared by the authors.

The best suggestion among those made by the linguist and key informants was chosen, and the second version of the instrument was obtained, which was used to conduct the cognitive interview.

During the cognitive interview stage, conducted individually with the two students, no suggestions were made. The second version was chosen as the final version of the instrument, named PercOV-S-A.

In the instrument, items 1 to 20 are sociodemographic data and questions that are not intended to measure the perception of obstetric violence: age; gender; academic and professional information; personal history of pregnancy and childbirth (for female students); practical learning activities in obstetrics during the course. The following 33 items on the scale measure perception, with a score from 1 to 5.

Table 2 presents items 21 to 53 of the instrument, as adapted. Under each item, respondents were asked to select a single option (1-2-3-4-5) in the figure below the statement. Items 21 to 33 refer to general perception; items 34 to 44, to perception during childbirth; items 45 to 47, to perception during cesarean section; and items 48 to 53, to perception after childbirth.

Table 2. Items for Measuring Perceptions of Obstetric Violence from the PercOV-S-A Instrument, with the Statement and Example of Where to Mark Item 21, 2021-2022

Give a score from 1 (no obstetric violence) to 5 (a lot of obstetric violence), based on the degree to which you consider the following actions to be obstetric violence.	
21.	Intravenous catheterization upon admission of all pregnant women
	Please select only one of the following options:
	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
22.	To relieve pain, tell the woman the best position to lie in.
23.	Administer medication to speed up the delivery process.
24.	Administer an enema. (This involves introducing fluids into the rectum and colon through the anus so that the woman does not defecate when pushing during delivery.)
25.	Artificially rupture the amniotic membranes to speed up the delivery process.
26.	Perform genital shaving. (Cutting of pubic hair)
27.	If the woman is very restless, she may be restrained.
28.	Perform a vaginal examination without the woman's consent.
29.	Fail to offer measures to treat pain.
30.	Trying to convince the woman to use an epidural.
31.	Not preserving the woman's privacy.
32.	Trying to convince the woman to have a cesarean section to end the labor painlessly and/or more quickly.
33.	Convincing the woman of clinical decisions made without considering her opinion.
34.	Taking pictures without permission during childbirth.
35.	During the expulsion phase, the professional must ensure that the woman is in the lithotomy position.
36.	During expulsion and immediately after childbirth, the woman may only be accompanied if the birth is not instrumented or if it is not a cesarean section. (If the delivery is instrumental or a cesarean section, the woman cannot be accompanied.)

37.	Performing an episiotomy, if necessary, without asking for permission beforehand. (An episiotomy is a cut made in the vagina to widen the birth canal.)
38.	Saying or expressing: “Don't you know how to push?”
39.	Performing the Kristeller maneuver. (Pressing on the upper part of the uterus in time with the woman's contractions and pushing)
40.	Performing an episiotomy without anesthesia.
41.	Prohibiting eating and/or drinking during labor.
42.	Not providing room temperature control appropriate to the geographical location. (cold = blanket or heat = air conditioning)
43.	Saying or expressing: “Stop complaining, it's not that bad.”
44.	Trying to stop the woman from screaming by explaining that it might scare the other women.
45.	Justifying a C-section because a normal delivery will take too long.
46.	When an emergency cesarean section is necessary, the gynecologist explains the informed consent, but there is no need to ensure that the pregnant woman is aware of what is being explained to her or to sign any documents.
47.	Not allowing a companion during a cesarean section/instrumental delivery.
48.	The umbilical cord must be cut immediately after birth.
49.	In the event of a tear, suture without anesthesia.
50.	Separate the mother from the baby without a medical reason supported by scientific evidence.
51.	Skin-to-skin contact should take place after the newborn has been examined by a pediatrician (midwife and/or pediatrician).
52.	Facilitate maternal rest, even if breastfeeding has not been established, by taking the baby to the nursery.
53.	Give a hospitalized newborn food other than breast milk without the mother's authorization.

Source: Prepare by the authors.

The final version of the PercOV-S-A instrument, shared in digital format, was used for the pilot test. It was completed by 289 students, 20 of whom were discarded because they were incomplete; only 269 were valid for analysis.

The validation of the data is presented in the following sections: Characterization of the sample; exploratory analysis of the questionnaire data; confirmatory factor analysis (tables 3 and 4); analysis of the reliability of the instrument (tables 5 and 6); total score of the scale and by domains (Table 7).

Regarding the sociodemographic characteristics of the students, the mean age was 21.8 (SD=4.5) years, with a minimum of 18 and a maximum of 49 years; 75.8% (n=204) were female; 12.3% (n=33) had been pregnant, of which 1.9% had been pregnant less than 1 year ago; 5.2% between 1 and 4 years ago; and 5.2% more than 4 years ago. Of the total number of women surveyed, 9.7% (n=26) had given birth (1.1% less than 1 year ago, 4.5% between 1 and 4 years ago, and 4.1% more than 4 years ago).

QQ plot tests showed non-normality of the data for questions 21 to 53 of the instrument, as verified by Shapiro-Wilks tests. Multivariate normality assumptions were also verified using Mardia contrasts. In this case, multivariate asymmetry and kurtosis contrasts, considered both separately and jointly, allowed the null hypothesis of multivariate normal distribution to be rejected for any level of significance, since all p-values associated with the statistics are zero.

The statistical assumptions for the most appropriate analyses for validating the PercOV-S-A scale were established, so the AFC was used; both the KMO test (p=0.955) and Bartlett's sphericity test (X2=6107.28; p≤0.000) were performed. Both tests showed that it was possible to perform this analysis. Due to the failure to meet the multivariate normality assumption in the data matrix checked above, the estimation method used was ULS with Varimax rotation. The model used showed a good fit, as the significant p-value was below 0.05 (Table 3).

Table 3. Chi-square (X2) test of model fit, degrees of freedom (df), and p-value. Ecuador, 2022

Model	X^2	gl	p-value
Factorial	6208,74	496	
base	1377,95	462	**<0,001**

Source: Prepared by the authors.

In addition, the RMSEA and its 95% CI were calculated. It was observed that the RMSEA can be considered acceptable for this sample size (Table 4).

Table 4. Additional fit measures RMSEA. Ecuador, 2022

Metric	Value
RMSEA	0,08
RMSEA IC95 % - lower limit	0,07
RMSEA IC95 % - upper limit	0,09
Valor-p de RMSEA	$1{,}216\times10^{-13}$

Source: Prepare by the authors.

Factor analysis explained 52.6% of the variance in three factors. The first factor, or domain, explained 41.1% of the variance and comprised 18 items. This domain was called Insensitive and cruel treatment. The second factor, or domain, explained 8.6% of the variance and comprised 9 items; it was called Normalized violence. The third factor, or domain, explained 2.9% of the variance, comprised 6 items, and was named Neglect and Manipulation (Table 5).

Table 5. Factor Loadings by Factor/Domain. Ecuador, 2022

Domains	Factors		
	1	2	3
Domain 1—Insensitive and cruel treatment			
Restrain the restless woman in labor	0,52	0,18	0,50
Vaginal touching without consent	0,66	-0,03	0,55

Domains	Factors		
	1	2	3
Failure to preserve privacy	0,55	0,14	0,49
Convince to perform a cesarean section	0,43	0,32	0,43
Unauthorized photos	0,87	0,02	0,29
Unassisted instrumental delivery	0,60	0,31	0,12
Episiotomy without informed consent	0,55	0,27	0,28
Say: "She doesn't know how to bid."	0,86	0,02	0,27
Episiotomy without anesthesia	0,73	0,13	0,34
Air conditioning during childbirth	0,67	0,20	0,25
Say: "Stop complaining, it's not that bad."	0,83	0,06	0,34
Try to prevent the woman from screaming	0,67	0,25	0,17
Justify cesarean section due to slow dilation	0,53	0,35	0,17
Failure to ensure informed consent is explained	0,54	0,32	0,24
Instrumental delivery or cesarean section without accompaniment	0,74	0,25	0,06
Suturing a tear without anesthesia	0,82	0,14	0,21
Separating the baby from the mother without medical justification	0,78	0,14	0,26
Offering alternative nutrition to hospitalized newborns	0,77	0,12	0,31
Domain 2—Normalized violence			
Place intravenous line upon admission	0,07	0,40	0,18
Indicate position to be placed	0,32	0,53	0,00
Genital shaving	0,14	0,39	0,18
Expulsive in lithotomy	0,14	0,66	0,04
Performing Kristeller during expulsion	0,35	0,56	0,23
Prohibit eating/drinking during childbirth	0,11	0,56	0,00
Umbilical cord cut immediately	0,06	0,50	0,14
Skin-to-skin contact after assessment of the baby	0,08	0,60	-0,03
Facilitating maternal rest without establishing breastfeeding	0,31	0,55	0,19
Domain 3—Negligence and manipulation			
Inducing labor with medication	0,16	0,36	0,43
Perform an enema	0,40	0,32	0,49
Perform premature rupture of membranes	0,45	0,25	0,48
Not offering measures for pain	0,44	0,04	0,54
Convince epidural use	0,21	0,35	0,54
Convincing others of decisions without their opinion	0,53	0,01	0,62

Source: Prepare by the authors.

Cronbach's alpha (α) and McDonald's indicator (ω) are used to verify the overall reliability of the questionnaire, both in general and by domain. The α and ω values were excellent (Table 6).

Table 6. Questionnaire Reliability Statistics. Ecuador, 2022

Questionnaire	Score	
	Cronbach's α (95% CI)	McDonald's(IC 95 %)
General	0,95 (0,94-0,96)	0,95 (0,94-0,96)
Domain 1—Insensitive and cruel treatment	0,96 (0,95-0,96)	0,96 (0,95-0,96)
Domain 2—Normalized violence	0,79 (0,76-0,83)	0,80 (0,76-0,83)
Domain 3—Negligence and manipulation	0,83 (0,80-0,86)	0,83 (0,80-0,86)

Source: Prepare by the authors.

The maximum score on the scale, both overall and in each of the two domains, is 5 (five), meaning that the closer the average score is to 5, the higher the perception of obstetric violence. The overall score on the PercOV-S-A scale, as well as domains 1, 2, and 3, indicated a high perception of obstetric violence among students. The mean values, standard deviation (SD), and 95% confidence intervals are presented in Table 7.

Table 7. Questionnaire Scores. Ecuador, 2022

Questionnaire	Score	
	Average (DE)	95 %IC
General	3,42 (0,88)	3,31-3,52
Domain 1—Insensitive and cruel treatment	3,53 (1,03)	3,41-3,66
Domain 2—Normalized violence	2,77 (0,87)	2,66-2,87
Domain 3—Negligence and manipulation	3,36 (1,04)	3,23-3,48

Source: Prepare by the authors.

Discussion

The use of an instrument, even if created in the common language of speakers from different countries, must maintain the ability to evaluate what is proposed in the original version, that is, in the language in which it was created. Therefore, in this case, it is not a matter of translating the instrument, but rather adapting it, which requires harmonization in linguistic and cultural aspects (21, 22).

Ecuador is recognized as a multicultural and multiethnic country, classified into 14 indigenous nationalities and 18 indigenous peoples, which are found in the four regions of the country: coast, highlands, east, and islands. Each of these regions maintains ancestral family and individual customs, different languages, and incalculable cultural wealth, which influence all aspects of life

and, of course, those related to pregnancy, childbirth, and the postpartum period. Spanish is recognized as the official language (21, 38).

The linguistic and cultural adaptation of the PercOV-S instrument was carried out following the procedures established in the literature, adopting the recommendations of authors specializing in cross-cultural adaptation methodology. To carry out this process, two highly recommended techniques were implemented: the formation of a committee of experts and the conduct of cognitive interviews, which were applied in this specific work (21, 30, 32).

The process of reviewing the original version for semantics, idioms, culture, and concepts started with a linguist who played a key role in making sure the language was accurate in the final format (30, 39). Subsequently, experts and key informants collaborated, which became a strong point, as they provided valuable information and a perspective that enriched both the researchers' and the linguist's vision, thus contributing to achieving the best version of the instrument (31, 40). For the expert stage, the professionals selected represented each of the regions of Ecuador, so that the instrument would be adequately adapted to the language and could be used in any of the regions separately or in all regions together.

In the cognitive interview stage with the PercOV-S instrument, now modified as PercOV-S-A, it was confirmed that each item had the same meaning for students, linguists, experts, and researchers (21, 33, 40, 41). This process verified that the students understood the meaning of all items, supporting the conclusion that the instrument was culturally applicable.

The adaptation of the instrument did not guarantee its final validation, as this new version had to be endorsed by the target audience for the analysis of the psychometric properties of the PercOV-S-A.

Methodological and statistical rigor was essential for its content and construct approval, which is the purpose of psychometric studies. The attributes of a validated instrument must be consistent with its content and construct. Content validity refers to the instrument's ability to adequately reflect the construct to be measured. In turn, construct validity refers to the ability to measure what it is intended to measure in all its items (42).

Thus, in addition to the stages involved in adapting the instrument, statistical analysis favored its psychometric properties. To this end, statistical assumptions were respected with analysis of data normality, the AFC and its complements, and reliability analysis of the PercOV-S-A scale, as detailed in the method and results. In the case of the original instrument from Spain, the researchers reported that internal reliability was excellent (43).

In the present study, for the perception of obstetric violence, the overall mean score on the PercOV-S-A scale was 3.42 (SD=0.88),

while in the Spanish validation study, the PercOV-S score was 4.14 (SD±0.61) (44). Using the same instrument in another study and with another group of participants, the overall mean was 2.79 (SD=0.61) (45). The two studies conducted in Spain, using the same instrument, together with the current study conducted in Ecuador using the adapted instrument, indicate that students' perception of obstetric violence was high.

Regarding the factors or domains of the adapted instrument, the first domain (Insensitive and cruel treatment) includes most of the items and has the highest mean score. In the second domain (Normalized violence), six of the nine items coincide with the first domain of the research conducted in Spain, which they called Visible or protocolized violence. These interventions are normally justified in hospitals or health centers where women in pregnancy, childbirth, or the postpartum period are cared for, and despite extensive scientific evidence proving the harmfulness of these procedures, they continue to be used, affecting pregnant women. In the case of Ecuador, in the Clinical Practice Guideline for Labor, Delivery, and Immediate Postpartum Care, published by the Ecuadorian Ministry of Public Health (46), several of the items were identified as not recommended (28-30).

Although it is not appropriate to interpret the factors separately, a look at the three domains offers a qualitative view of the students' perceptions. Ideally, it is crucial not to neglect the humanization of the education of future health professionals, especially if high-level teaching is integrated with technology. It is essential to promote respectful care during childbirth and to guide students in critical thinking and the resolution of complex situations, even in contexts with limited resources. Skill development should include collaborative decision-making with women in labor, respecting their beliefs and rights. This comprehensive approach not only strengthens technical training but also contributes to the development of health professionals committed to ethics, empathy, and respect for those receiving health care (22).

By presenting this new tool to the healthcare community in training, the aim is to raise awareness of obstetric violence, which in turn will enable it to be prevented through appropriate training in the classroom or re-education in hospital settings.

In nursing, training must be both scientific and humanitarian; for this reason, it is considered that this tool can be used during the training of nurses, even before and after covering topics related to obstetric violence.

Regardless of the definition or classification chosen to address the study of obstetric violence, its existence is undeniable. Various social movements, academics, and research groups are currently active and addressing this phenomenon globally (47). Their goal is to generate information, raise awareness of the problem,

make comparisons, and understand the consequences for both the physical and psychological health of the women affected. This joint effort seeks to provide a solid foundation for the formulation of future health policies at the national and international levels and to ensure the adequate allocation of resources to effectively address this issue (10, 15, 48).

Study limitations

One limitation of the study is the lack of representation of experts in humanized childbirth as key informants from the island region of Ecuador. However, the number of professionals was completed thanks to a gynecologist who, although she had recently left the island region, had worked there for more than eight years.

Conclusion

The PercOV-S-A instrument, designed to assess the perception of obstetric violence in health science students, is fully usable in Ecuador for its originally intended purpose.

It is imperative to consider the prevention of obstetric violence during the training of future health professionals, to empower women as protagonists of their own pregnancy and childbirth processes. Additional evidence from larger studies is required to establish its psychometric performance and clinical validity.

Conflict of interest

The authors declare that they have no conflict of interest in, during, or after writing this article.

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