

Translation into Spanish and cultural adaptation of a questionnaire to evaluate the satisfaction of patients undergoing regional anesthesia

Traducción al español y adaptación cultural de un cuestionario para evaluar la satisfacción de los pacientes sometidos a anestesia regional

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Abstract

Objective: Here are few questionnaires focused on regional anesthesia that have been validated and culturally adapted to the target population, so the objective is to translate, culturally adapt, and validate the original French questionnaire *Evaluation de la satisfaction des patients ayant bénéficié d'une anesthésie locorégionale par bloc nerveux périphérique* into the Spanish language in Mexico. **Method:** The translation, cultural adaptation and validation of the questionnaire was carried out using the Quality-of-Life Special Interest Group (QoL-SIG) - Translation and Cultural Adaptation Group (TCA Group) method. The quality of the translation and the applicability of the questionnaire were evaluated, and its reliability and stability were estimated. **Results:** The response rate was 100%. Each questionnaire takes less than 5 minutes. The Spearman and intraclass correlation coefficient between the two evaluations carried out for the ordinal responses was 1 ($p < 0.001$). The responses were constant in the dichotomous responses, except in response 3.1, with a kappa index and phi coefficient of 1 ($p < 0.001$).

Keywords: Satisfaction. Regional anesthesia. Nerve block. Questionnaire.

Resumen

Objetivo: Son escasos los cuestionarios enfocados en anestesia regional que han sido validados y adaptados culturalmente a la población blanco, por lo que el objetivo es traducir adaptar culturalmente y validar el cuestionario original en francés *Evaluation de la satisfaction des patients ayant bénéficié d'une anesthésie locorégionale par bloc nerveux périphérique* al idioma español en México. **Método:** La traducción, la adaptación cultural y la validación del cuestionario se efectuaron con el método del Quality of Life Special Interest Group (QoL-SIG) - Translation and Cultural Adaptation Group (TCA Group). Se evaluaron la calidad de la traducción y la aplicabilidad del cuestionario, y se estimaron su fiabilidad y estabilidad. **Resultados:** La tasa de respuesta fue del 100%. Cada cuestionario se efectuó en menos de 5 minutos. El coeficiente de correlación de Spearman e intraclass entre las dos evaluaciones realizadas para las respuestas ordinales fue de 1 ($p < 0.001$). Las respuestas fueron constantes en las respuestas dicotómicas, excepto en la respuesta 3.1, con un índice kappa y un coeficiente phi de 1 ($p < 0.001$).

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Conclusiones: El cuestionario traducido y adaptado culturalmente al español en México es una herramienta válida, fiable, sencilla y fácil de utilizar para evaluar la satisfacción del paciente sometido a anestesia regional.

Palabras Clave: Satisfacción. Anestesia regional. Bloqueos nerviosos. Cuestionario.

Introduction

Regional anesthesia, both central and peripheral, has as its main objective the elimination of pain in the area to be treated during the surgical procedure and adequate control of postoperative pain.^{1,2} However, despite its demonstrated benefits, more detailed research is needed on patient satisfaction when regional anesthesia is used. Satisfaction cannot be considered an objective indicator, but it can be considered an integral part of the assessment of quality in anesthetic care,³ and the best way to understand the outcome from the patient's point of view.⁴ Satisfaction is a complex and multidimensional concept and has been defined as the product of the comparison between expectations and the final outcome perceived by the patient after a treatment or intervention.^{4,5} Although several studies have evaluated patient satisfaction with anesthesia, few have reported the development of a questionnaire through a psychometric process and its subsequent validation, and validated and culturally adapted questionnaires focused on regional anesthesia are even scarcer.^{3,6} In 2006, Montenegro et al.⁷ developed and validated a satisfaction questionnaire in French for patients undergoing surgery under peripheral nerve block (PNB). However, when a questionnaire developed in another country and another language is to be used, in addition to translating it, it must be culturally adapted and validated.⁸

The aim of this study was to translate, culturally adapt, and validate the original French questionnaire *Evaluation de la satisfaction des patients ayant bénéficié d'une anesthésie locorégionale par bloc nerveux périphérique*⁷ into Spanish, according to the methodological steps recommended in the international literature.⁸

Method

Study design

Between April 1st and September 30th, 2023, a process of translation and cultural adaptation, as well as

validation, of a satisfaction questionnaire was conducted in a case series at *Hospital Ángeles Metropolitano*, Mexico City, Mexico. The project was approved on March 29th, 2023, by the Research and Ethics Committee of *Hospital Ángeles Metropolitano*, and the procedures were performed in accordance with good clinical practice standards. All participants signed an informed consent form.

Participant selection

For the cultural adaptation phase, 20 individuals of both sexes who were fluent in Spanish and attended a medical consultation at *Hospital Ángeles Metropolitano* were included.

For the phase estimating the reliability of the Spanish questionnaire, another 20 individuals of both sexes, fluent in Spanish, with physical status I to III according to the American Society of Anesthesiologists classification,⁹ scheduled for elective orthopedic surgery under regional anesthesia consisting of ultrasound-guided PNB, with or without subarachnoid block, were included. Cases with psychiatric disease, major depression, dementia, neurological disease affecting memory, Parkinson disease, autism spectrum disorder, liver disease, kidney disease, chronic alcoholism, drug addiction, chronic use of benzodiazepines for any reason, or anesthetic premedication with benzodiazepines in the 24 hours before the procedure were excluded.

Preparation of the research group

A multidisciplinary research group was formed, including 3 specialist physicians in anesthesiology, one of whom had advanced specialization in regional anesthesia and master's and doctoral degrees in medical sciences; one specialist physician in genetics with master's and doctoral degrees in medical sciences; one resident physician in anesthesiology; one French-Spanish bilingual surgeon, whose native language was French; and one undergraduate medical intern. One member of the research group sent an invitation by email to the corresponding author and other authors

of the article in which the original questionnaire was published to participate in the translation, adaptation, and validation of the questionnaire into Spanish, but it was not possible to establish contact with any of them.

Questionnaire

Translation, cultural adaptation, and validation of the questionnaire were performed using the structured method suggested by the Quality of Life Special Interest Group (QoL-SIG) - Translation and Cultural Adaptation Group (TCA Group),¹⁰ and following the recommendations made by expert authors in the field.¹¹⁻¹³

The questionnaire *Evaluation de la satisfaction des patients ayant bénéficié d'une anesthésie locorégionale par bloc nerveux périphérique* was used. It was developed in France with a cohort of 181 trauma and orthopedic patients operated on under PNB¹⁴ and was subsequently formally validated with another group of patients undergoing surgery under PNB. The questionnaire includes three short questionnaires with questions on the quality of the information provided by the anesthesiologist to the patient about PNB, the pain and anxiety perceived by the patient during the procedure, and overall satisfaction at the end of the procedure. The first questionnaire consists of five questions, is administered by the anesthesiologist on day 0, and consists of 2 stages: before surgery, 3 questions, and after surgery, 1 question in the operating room at the end of the intervention and one question upon discharge from the recovery room. The second questionnaire is administered on day 1, that is, the day after surgery. The third and final questionnaire may be administered up to one week after surgery. The last two questionnaires are administered by an external interviewer, who usually asks the questions to the patients by telephone. In the first questionnaire, the response to the first question about the state of relaxation is given on a scale from 0 to 10, with 0 being the lowest possible score and 10 the highest possible score. The response to the remaining four questions is marked by the patient on a visual analog scale, with 0 indicating absence of pain and 10 indicating the worst pain they have experienced in their life.

In the second and third questionnaires, the responses are dichotomous, yes or no, except for one question on overall satisfaction in questionnaires 2 and 3, which is rated using a four-level Likert scale: very satisfied, satisfied, partially satisfied, and not

satisfied. Lastly, the third questionnaire includes an open-ended question in which the patient may express the reasons why they would not like to receive a PNB again.

Translation

Translation of the original French questionnaire (v0) into Spanish was performed by 2 independent translators working in the health and research fields, whose native language is Spanish. Both Spanish versions, v1 and v2, were unified by the members of the research group (v3). This Spanish version (v3) was translated back into the original language by 2 independent translators (v4 and v5) who were unaware of the original version of the questionnaire and whose native language is French. All translations (v0-v5) were reviewed by the research group, questions were discussed with the translators to ensure conceptual equivalence, and a prefinal version of the questionnaire (v6) was developed, including the introduction, instructions, and possible responses.

Discrepancies within the research group were resolved by trying to avoid colloquialisms and seeking a common way to express a concept in both languages, thus maintaining content validity. The research group ensured that the prefinal version (v6) was equivalent to the original questionnaire (v0) and understandable to a person with knowledge equivalent to that of a 12-year-old.⁸

Pretest

To assess the quality of the translation and the applicability of the questionnaire, a total of 20 participants were asked to read the prefinal version (v6). Through a structured interview, they were asked to comment on aspects they found difficult to understand in the instructions, questions, and response options of both versions. A report was prepared with the participants' comments. The research group took these comments into account to complete the cultural adaptation and prepare the final version (v7) of the questionnaire.

Validation

RELIABILITY

The reliability of the questionnaire (v7) was estimated through the consistency of the responses

obtained on 2 occasions from 20 patients scheduled for orthopedic surgery under regional anesthesia with PNB. Stability was estimated using the test-retest technique, with a 15-minute interval for the first questionnaire and a 24-hour interval for the second and third questionnaires.¹²

VALIDITY

The face and content validity of the questionnaire (v7) were assessed through an empirical evaluation based on judgments from different sources:⁸ 1) the theoretical assumptions under which the original questionnaire was developed to measure aspects that could affect patient satisfaction; 2) the opinions of other research groups regarding the clinical and methodological relevance of the questionnaire, through a targeted search of all available citations regardless of date or language in Europe PMC and Google Scholar; 3) the opinions of the 20 pretest participants; and 4) the opinions of each member of our research group, using the Delphi method.¹⁵

Statistical analysis

Although there are no criteria to determine the ideal number of participants in the process of cultural adaptation and validation of health measurement instruments, according to the recommendations of Ortiz and Cruz in 2018,¹³ 20 participants fluent in Spanish were included for the cultural adaptation phase, and 20 participants with the characteristics of the population in which the questionnaire is intended to be used were included for the reliability estimation phase, that is, patients scheduled for orthopedic surgery under regional anesthesia with PNB. Nonprobabilistic sampling of consecutive cases was performed until the sample size was completed.

Descriptive statistics were performed with calculation of the median, minimum, and maximum values for quantitative variables, and absolute and relative frequencies for qualitative variables.

To assess reliability through the stability of the questions in the first questionnaire and the overall satisfaction question in the second and third questionnaires, Spearman's correlation coefficient and the intraclass correlation coefficient were calculated, since the responses correspond to an ordinal scale. Except for the last question of the third questionnaire, whose response is open-ended and therefore

qualitative, the stability of the remaining questions in the second and third questionnaires with dichotomous responses was calculated using Cohen's kappa index and the phi coefficient.¹⁶ Data analysis was performed using SPSS 25 for Mac (SPSS Inc., 2017, Chicago, IL, United States), and a statistical significance level of $p \leq 0.05$ was established.

Results

The median and IQR of the age of the individuals who participated in the cultural adaptation phase and in the reliability estimation phase were 49 (33-65) and 45 (34-51) years, respectively. The general characteristics of the participants are shown in table 1.

When evaluating the quality of the translation and the applicability of the prefinal version (v6) of the questionnaire in Spanish, the 20 participants interviewed agreed that all sections of this version were sufficiently clear and easy to answer, except for item 3.7.1 of the third questionnaire; therefore, the research group, with the support of the translators, adjusted the wording.

Regarding the assessment of face and content validity, the opinions of three sources were taken into consideration: the authors of the original questionnaire, the authors who cited the original questionnaire in their scientific publications, and the members of the research group of this study who were experts in research methodology and anesthesiology.

The authors of the original questionnaire developed and validated it by considering several aspects that could affect the patient's experience and, therefore, have an impact on satisfaction with a regional anesthesia technique using PNB: 1) the information and quality of the explanations provided by the anesthesiologist about the procedure and the use of analgesics at home; 2) the pain and anxiety perceived during the procedure; 3) the presence of postoperative pain, the efficacy of the prescribed analgesic treatment, and the occurrence of adverse effects such as nausea, vomiting, sleep disturbance, or neurological signs, sensory or motor; and 4) whether they would like to receive the same type of anesthesia for a subsequent procedure.⁷

Regarding the opinions of other research groups on the clinical relevance and methodological quality of the original questionnaire, 26 citations to the questionnaire were identified in Europe PMC and Google Scholar, but only seven expressed an opinion on the content, development, validation, and use of the questionnaire to assess patient satisfaction with PNB.^{3,4,17-21}

Table 1. Characteristics of the participants in the cultural adaptation and questionnaire reliability estimation phases

Characteristic	Stage			
	Cultural adaptation		Reliability estimation	
	n	%	n	%
Sex				
Female	12	60.0	8	40.0
Male	8	40.0	12	60.0
American Society of Anesthesiologists physical status classification				
I	2	10.0	8	40.0
II	13	65.0	10	50.0
III	5	25.0	2	10.0
Diagnosis				
Amputation of the 4 th and 5 th toes	0	0.0	1	5.0
Hip arthroscopy	0	0.0	1	5.0
Shoulder arthroscopy	0	0.0	3	15.0
Knee arthroscopy	0	0.0	4	20.0
Headache	2	10.0	0	0.0
Diabetic ketoacidosis	1	5.0	0	0.0
Placement of external fixators in the humerus	0	0.0	1	5.0
Dengue	3	15.0	0	0.0
Chronic abdominal pain	1	5.0	0	0.0
Knee pain	3	15.0	0	0.0
Hysterectomy	0	0.0	1	5.0
Urinary tract infection	1	5.0	0	0.0
Chronic kidney failure	1	5.0	0	0.0
Surgical lavage of the foot	0	0.0	2	10.0
Low back pain	3	15.0	0	0.0
Community-acquired pneumonia	1	5.0	0	0.0
Radius osteosynthesis	0	0.0	1	5.0
Pancreatitis	1	5.0	0	0.0
Scorpion sting	1	5.0	0	0.0
Diabetic foot	1	5.0	0	0.0
Open reduction and internal fixation of the fibula	0	0.0	1	5.0
Open reduction and internal fixation of the distal phalanx	0	0.0	1	5.0
Closed shoulder reduction	0	0.0	1	5.0
Tendon repair	0	0.0	2	10.0
Removal of ankle osteosynthesis material	0	0.0	1	5.0
Complex regional pain syndrome type II	1	5.0	0	0.0

(Fig. 1). Of particular note is the systematic review by Barnett et al.³, in which the article where the original questionnaire was published was referred to as the only one identified up to 2013 in which psychometric development and an evaluation process were used to measure satisfaction with regional anesthesia in a nonobstetric setting.

On the other hand, the experts in anesthesiology and research methodology in our research group agreed that the content of both the original version of the questionnaire and the version translated into Spanish was clear and appropriate for assessing the most important aspects involved in the satisfaction of patients undergoing regional anesthesia with PNB.

The distribution of responses from the 2 assessments performed in 20 patients scheduled for

orthopedic surgery under regional anesthesia with PNB is shown in tables 2 and 3. The participant response rate was 100%. Each questionnaire was administered in less than 5 minutes. The Spearman and intraclass correlation coefficients for questions with ordinal responses between the two assessments performed were 1 ($p < 0.001$) (Fig. 2). The responses were consistent in the questions with dichotomous responses, except for question 3.1, with a kappa index and phi coefficient of 1 ($p < 0.001$).

Discussion

Regional anesthesia has evolved in recent years with the advent of ultrasonographic guidance, which has led to an increase in its use and, above all, in its

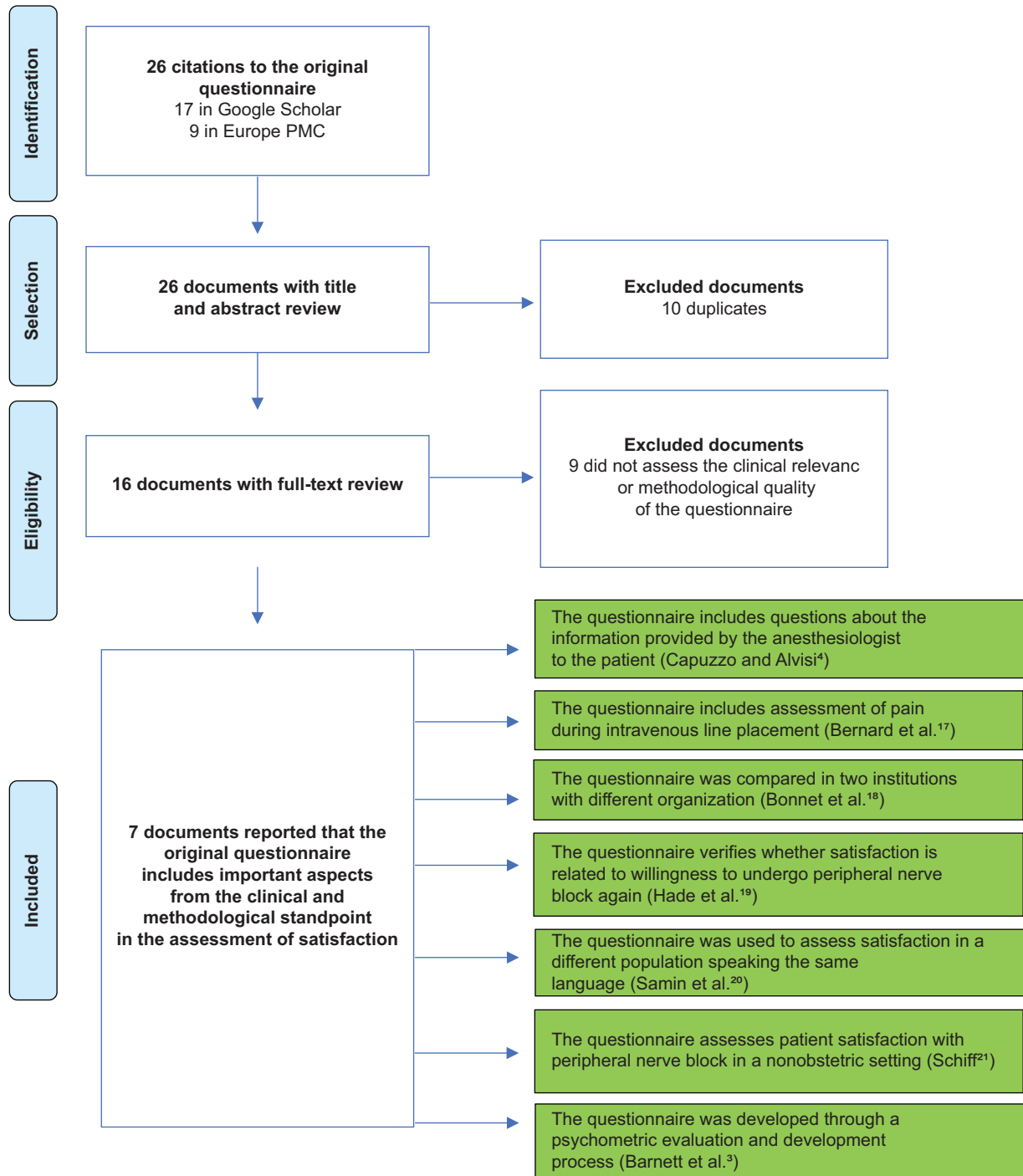


Figure 1. Identified citations of the questionnaire *Evaluation de la satisfaction des patients ayant bénéficié d'une anesthésie locorégionale par bloc nerveux périphérique*.⁷

reliability and safety. New anesthetic approaches have even been developed, such as ultrasound-guided PNBs, which have demonstrated multiple benefits and have achieved more ambitious goals by individualizing both physiological and psychological requirements and providing maximum comfort to each

patient. However, studies on the satisfaction of patients undergoing regional anesthesia techniques are scarce.

Since patient satisfaction may be considered one of the fundamental quality indicators in the field of anesthesia, its evaluation is of utmost importance.

Table 2. Distribution of responses to the questions in the first questionnaire

Questions	First assessment			Second assessment		
	Median	Minimum	Maximum	Median	Minimum	Maximum
1.1	10	8	10	10	8	10
1.2	4	2	6	4	2	6
1.3	0	0	2	0	0	2
1.4	0	0	0	0	0	0
1.5	0	0	0	0	0	0

Table 3. Distribution of responses to the questions in the second and third questionnaires

Questions		First assessment		Second assessment	
		n	%	n	%
Second questionnaire					
2.1	Yes	20	100	20	100
2.1.1	Yes	20	100	20	100
2.2	Yes	20	100	20	100
2.3	Yes	20	100	20	100
2.4	Yes	20	100	20	100
2.5	Yes	20	100	20	100
2.6	Yes	20	100	20	100
2.6.1	Yes	20	100	20	100
2.7	Very satisfied	20	100	20	100
Third questionnaire					
3.1	No	9	45	9	45
3.1	Yes	11	55	11	55
3.2	Yes	20	100	20	100
3.3	No	20	100	20	100
3.4	No	20	100	20	100
3.5	No	20	100	20	100
3.6	No	20	100	20	100
3.7	No	20	100	20	100
3.7.1	No	20	100	20	100
3.8	Very satisfied	20	100	20	100
3.9	Yes	20	100	20	100

Although satisfaction and quality are difficult concepts to define, it is not difficult to establish a relationship between patient satisfaction and the quality of the service provided. Satisfaction is an indicator of the patient's perception of health care services, even though this perception is personal and subjective.²² Perceived quality affects satisfaction, and satisfaction in turn affects behavior.²³ Therefore, it is logical and necessary to have validated questionnaires or instruments to measure patient satisfaction and thereby determine the quality of the service provided when regional anesthesia techniques are used, since satisfaction is often assessed using visual scales or simple nonstandardized questions.

The purpose of having validated instruments is none other than to identify areas of opportunity that make it possible to establish strategies to improve quality of care and move toward excellence. Patient satisfaction is one objective, but so is the quality of health care.²²

The results of the search and critical analysis of the literature on questionnaires or instruments used to determine patient satisfaction after regional anesthesia show a very limited number of specific studies, in which instruments not specifically designed for this purpose are also used, or their validity and reliability have not been evaluated.

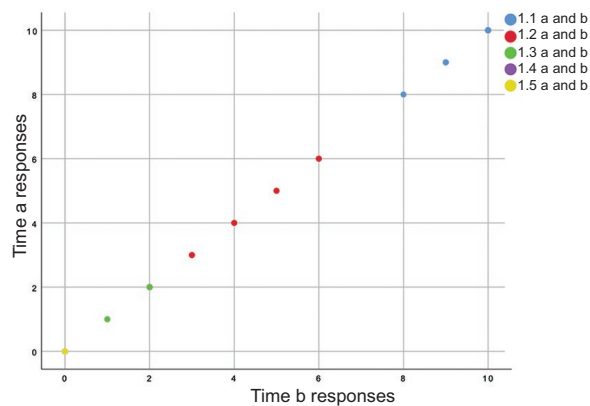


Figure 2. Spearman correlation coefficient ($\rho = 1$, $p < 0.001$) for questions with ordinal responses using the test-retest technique.

To our knowledge, there is no questionnaire or instrument in Spanish designed and validated to specifically evaluate patient satisfaction with the use of regional anesthesia techniques; therefore, questionnaires published in other languages and other cultural contexts are usually consulted and used.

The use of a satisfaction questionnaire in a language and cultural context different from those in which it was developed cannot be carried out through simple translation of the questionnaire. A systematic and standardized process of cultural adaptation and validation is required in the population in which it will be applied, since individuals' opinions may be influenced by the setting in which they find themselves, the information, impression, view, or expectations regarding the disease and its treatment, educational level, language, and culture.²⁴

Thus, we considered it important to translate and culturally adapt into Spanish in Mexico the questionnaire *Evaluation de la satisfaction des patients ayant bénéficié d'une anesthésie locorégionale par bloc nerveux périphérique*,⁷ a validated French instrument consisting of three questionnaires to evaluate the pre-, intra-, and postoperative perception of patients receiving regional anesthesia.

The questionnaire addresses patient satisfaction with the anesthetic process globally, since it goes beyond the operating room and provides a more comprehensive view. The first questionnaire evaluates the anxiety that the patient may experience before the block; the intensity of pain during puncture for venous access, which may be a very unpleasant experience for patients; the intensity of pain during puncture when the PNB is placed, which may be minimized with sedoanalgesia; and the intensity of pain during and at

the end of surgery, which may result from an incomplete block. Subsequently, the second questionnaire evaluates patient satisfaction with the information and explanation provided when obtaining consent, during performance of the procedure, and at discharge with instructions for pain treatment, since it has been shown that providing relevant information and explaining procedures to the patient can significantly reduce perceived anxiety.²⁵ Finally, the third questionnaire evaluates pain intensity when the patient is at home, possible adverse effects, and again satisfaction with the regional anesthesia procedure received.

The translation of the questionnaire from French into Spanish sought at all times to maintain the greatest possible similarity to the original version and did not involve major difficulties. The words in most of the questions and possible answers had equivalents in both languages. Differences of opinion within the research group regarding the use of certain terms were resolved by consensus.

The simple application of the questionnaire became evident when the pretest was performed in hospitalized patients, both surgical and nonsurgical, since each questionnaire took less than 5 minutes to complete and all questions and answers were understandable to the respondents, although minimal adjustments could be made to the questions without compromising psychometric functionality.

We believe that the translation and cultural adaptation of a questionnaire already existing in another language provides a standardized instrument in Spanish in Mexico and in other countries with a similar culture, which can be used to conduct studies on patient satisfaction when receiving regional anesthesia. Given the cultural and even socioeconomic diversity of Spanish-speaking countries, the questionnaire we present (Supplementary Material 1) may require further adaptations. However, this work is the beginning of a process to obtain an instrument that can be used in other countries with different cultures or languages, which will make it possible to obtain equivalent and comparable results on the perception of satisfaction among patients undergoing regional anesthesia and, indirectly, on the quality of care, as well as to establish strategies to improve it.

Conclusions

The patient satisfaction questionnaire after receiving regional block anesthesia by Montenegro et al.,⁷ translated and culturally adapted into Spanish in

Mexico, is a valid, reliable, simple, and easy-to-use tool to evaluate the satisfaction of patients undergoing regional anesthesia, with potential use not only in clinical practice but also for clinical and epidemiological research purposes. It is necessary to continue the cultural adaptation of the questionnaire in other Spanish-speaking countries or in other languages to obtain a valid instrument that provides equivalent and comparable results on the satisfaction of patients undergoing regional anesthesia.

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Conflicts of interest

The authors declare that they have no conflicts of interest.

Ethical considerations

Protection of humans and animals. The authors declare that the procedures followed complied with the ethical standards of the responsible human experimentation committee and were in accordance with the World Medical Association and the Declaration of Helsinki.

Confidentiality, informed consent, and ethical approval. The authors followed the protocols of their health care center/institution for accessing data from medical records. Informed consent was obtained from the patients, and approval from the Ethics Committee was obtained. The recommendations of the SAGER guidelines were followed.

Declaration on the use of artificial intelligence. The authors declare that no type of generative artificial intelligence was used for the writing or creation of content in this manuscript.

Supplementary data

The supplementary material is available at DOI: 10.24875/CIRU.240000841. This material is provided by the corresponding author and published online for the benefit of the reader. The content of the

supplementary material is the sole responsibility of the authors.

References

1. Sociedad Española de Anestesiología, Reanimación y Terapéutica del Dolor. Sección locorregional. SEDAR; 2023. Disponible en: <https://www.sedar.es/index.php/secciones-y-grupos-de-trabajo/locorregional>.
2. Hohener D, Blumenthal S, Borgeat A. Sedation and regional anaesthesia in the adult patient. *Br J Anaesth*. 2008;100:8-16.
3. Barnett SF, Alagar RK, Grocott MP, Giannaris S, Dick JR, Moonesinghe SR. Patient-satisfaction measures in anaesthesia: qualitative systematic review. *Anesthesiology*. 2013;119:452-78.
4. Capuzzo M, Alvisi R. Is it possible to measure and improve patient satisfaction with anaesthesia? *Anesthesiol Clin*. 2008;26:613-26.
5. Faruk BO, Gunay O, Gunay E, Boran M, Bilal B, Bakacak M, et al. Factors affecting perioperative patient satisfaction with regional anaesthesia: a patient-centered survey study. *Clin Exp Health Sci*. 2022;12:401-9.
6. Wu CL, Naqibuddin M, Fleisher LA. Measurement of patient satisfaction as an outcome of regional anaesthesia and analgesia: a systematic review. *Reg Anesth Pain Med*. 2001;26:196-208.
7. Montenegro A, Pourtalés MC, Greib N, End E, Gaertner E, Tulasne PA, et al. [Assessment of patient satisfaction after regional anaesthesia in two institutions]. *Ann Fr Anesth Reanim*. 2006;25:687-95.
8. Ramada-Rodilla JM, Serra-Pujadas C, Delclós-Clanchet GL. Adaptación cultural y validación de cuestionarios de salud: revisión y recomendaciones metodológicas. *Salud Publica Mex*. 2013;55:57-66.
9. American Society of Anesthesiologists. Standards and practice parameters. Statement on ASA Physical Status Classification System. ASA; 2020. Disponible en: <https://www.asahq.org/standards-and-practice-parameters/statement-on-asa-physical-status-classification-system>.
10. Wild D, Grove A, Martin M, Eremenco S, McElroy S, Verjee-Lorenz A, et al. Principles of good practice for the translation and cultural adaptation process for patient-reported outcomes (PRO) measures: report of the ISPOR Task Force for Translation and Cultural Adaptation. *Value Health*. 2005;8:94-104.
11. Guillemin F, Bombardier C, Beaton D. Cross-cultural adaptation of health-related quality of life measures: literature review and proposed guidelines. *J Clin Epidemiol*. 1993;46:1417-32.
12. Carvajal A, Centeno C, Watson R, Martínez M, Rubiales AS. [How is an instrument for measuring health to be validated?]. *An Sist Sanit Navar*. 2011;34:63-72.
13. Ortiz-Gutiérrez S, Cruz-Avelar A. Translation and cross-cultural adaptation of health assessment tools. *Actas Dermosifiliogr (Engl Ed)*. 2018;109:202-6.
14. Greib N. Evaluation de la satisfaction des patients bénéficiant d'un bloc nerveux périphérique en chirurgie orthopédique et traumatologique. *Ann Fr Anesth Reanim*. 2003;22:301.
15. London KS, Singal B, Fowler J, Prepejchal R, Simmons S, Finefrock D. A Delphi method analysis to create an emergency medicine educational patient satisfaction survey. *West J Emerg Med*. 2015;16:1106-8.
16. Esquivia CL. Tema 5. Fiabilidad. Repositorio Institucional de la Universidad de Alicante. Disponible en: <https://rua.ua.es/dspace/handle/10045/136089>.
17. Bernard FRG, Fusco N, Hugot P, Guillo N, Musellec H. Hypnose et anesthésie locorégionale. *Le Praticien en Anesthésie et Réanimation*. 2019;23:77-81.
18. Bonnet F, Solignac S, Marty J. [Do you mean benchmarking?]. *Ann Fr Anesth Reanim*. 2008;27:222-9.
19. Hade AD, Okano S, Pelecanos A, Chin A. Factors associated with low levels of patient satisfaction following peripheral nerve block. *Anaesth Intensive Care*. 2021;49:125-32.
20. Samin J, Collange O, Pourtales MC, Ravaz T, Calon B, Pottecher T. [Assessment of quality in day-case hand surgery]. *Ann Fr Anesth Reanim*. 2009;28:735-42.
21. Schiff JH. Perioperative patient outcome in anaesthesia. PhD thesis. James Cook University; 2013. Disponible en: <https://researchonline.jcu.edu.au/42191/1/42191-schiff-2013-thesis.pdf>.
22. Clearly PD, McNeil BJ. Patient satisfaction as an indicator of quality care. *Inquiry*. 1988;25:25-33.
23. Gottlieb JB, Grewal D, Brown SW. Consumer satisfaction and perceived quality: complementary or divergent constructs? *J Appl Psychol*. 1994;79:875-85.
24. De Tiedra AG, Mercadal J, Badia X, Mascaro JM. Adaptación transcultural al español del cuestionario Dermatology Life quality Index (DLQI): el índice de calidad de vida en dermatología. *Actas Dermosifiliogr*. 1998;89:692-700.
25. Gordillo LF, Arana MJM, Mestas HL. Tratamiento de la ansiedad en pacientes prequirúrgicos. *Rev Clin Med Fam*. 2011;4:228-33.