RESEARCH

TRANSLATION INTO BRAZILIAN PORTUGUESE AND TRANSCULTURAL ADAPTATION OF WOUND QUALITY OF LIFE INSTRUMENT

TRADUÇÃO PARA O PORTUGUÊS DO BRASIL E ADAPTAÇÃO TRANSCULTURAL DO INSTRUMENTO WOUND QUALITY OF LIFE

TRADUCCIÓN AL IDIOMA PORTUGUÉS DE BRASIL Y ADAPTACIÓN TRANSCULTURAL DEL INSTRUMENTO WOUND QUALITY OF LIFE

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ABSTRACT

Objective: To translate and culturally adapt the Wound Quality of Life instrument into Brazilian Portuguese. **Methods:** Methodological study that followed the steps of translation, synthesis, back-translation, review by the expert committee and pre-test as recommended international methodology. Pretest performed in a public hospital in the State of Paraná with 40 participants, from October to December 2015. The content validity was determined by concordance rate between committee members. **Results:** The questionnaire proved to be reliable with satisfactory internal consistency (Cronbach's alpha = 0.878699) and good practicability evidenced by the time in which participants filled it: seven minutes. **Conclusion:** The adapted version is semantic and culturally similar to the original version with reliable and satisfactory psychometric measures for the Brazilian population with chronic wounds.

Keywords: Wounds and Injuries; Quality of Life; Cross-Cultural Comparison; Surveys and Questionnaires; Nursing Methodology Research.

RESUMO

Objetivo: traduzir e adaptar culturalmente o instrumento Wound Quality of Life para a língua portuguesa do Brasil. Métodos: estudo metodológico que seguiu as etapas de tradução, síntese, retrotradução, revisão pelo comitê de especialistas e pré-teste conforme metodologia internacional recomendada. Pré-teste realizado em hospital público no estado do Paraná com 40 participantes, entre outubro e dezembro de 2015. Determinouse a validade de conteúdo pela taxa de concordância entre o comitê. Resultados: o questionário demonstrou ser confiável com consistência interna satisfatória (Alfa de Cronbach=0,878699) e com boa praticabilidade evidenciada pelo tempo aproximado de preenchimento pelos participantes igual a sete minutos. Conclusão: a versão adaptada é semântica e culturalmente similar à versão original e apresentou medidas psicométricas confiáveis e satisfatórias para a população brasileira com feridas crônicas.

Palavras-chave: Ferimentos e Lesões; Qualidade de Vida; Comparação Transcultural; Inquéritos e Questionários; Pesquisa Metodológica em Enfermagem.

RESUMEN

Objetivo: traducir y adaptar culturalmente el instrumento Wound Quality of Life (calidad de vida relacionada con heridas crónicas) al idioma portugués de Brasil. Métodos: estudio metodológico que siguió las etapas de traducción, síntesis, retrotraducción, revisión por parte del comité de expertos y pre-prueba en conformidad con la metodología internacional recomendada. Prueba preliminar realizada en un hospital público del Estado de Paraná con 40 participantes, ente octubre y diciembre de 2015. La validez de contenido fue determinada por la tasa de concordancia entre los miembros del comité. Resultados: el cuestionario demostró ser fiable con consistencia interna satisfactoria (Alfa de Cronbach = 0.878699) y práctico pues los participantes tardaron aproximadamente siete minutos en completarlo. Conclusión: la versión adaptada es semántica y culturalmente similar a la versión original y presentó medidas psicométricas confiables y satisfactorias para la población brasileña con heridas crónicas.

Palabras clave: Heridas y Lesiones; Calidad de Vida; Comparación Transcultural; Encuestas y Cuestionarios; Investigación Metodológica en Enfermería.

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INTRODUCTION

Chronic wounds are distinguished for not following the dynamic process of healing and feature a stagnation in the inflammatory phase. These wounds have a tissue repair period of six weeks or more and recurrent characteristics. They represent a silent epidemic that affect a substantial portion of the world's population, with a prevalence from 1 to 2%.

They characterize a significant clinical problem, with social and economic impact to health services, and with substantial effects on quality of life (QoL) of the individual and their family. They bring a lot of changes in lifestyle, difficulties in their functional capacity emerge due to daily living with symptoms of pain, anxiety, sleeping pattern disorders, depression, discomfort associated with edema, pruritus, exudation and odor that can lead to social isolation, removal from work and family problems.³

For carrying out a series of interventions in health, it is crucial to measure the QoL with the use of scientific instruments, especially when patients experience chronic and recurrent dysfunctions.⁴ This assessment makes it possible to explore the impact of a disease on the individuals' lives to evaluate physical and emotional aspects.⁵

In a survey conducted by the authors in 2016 about the presence of this subject in the Brazilian literature, we identified the following methodological studies of cross-cultural adaptation and instruments validation for QoL evaluation in chronic wounds to the Brazilian reality: Quality-of-life index of Ferrans and Powers-Wound Version (IQVFP-VF) used for acute and chronic wounds of different etiologies; Neuropathy and Foot Ulcer Specific Quality of Life (NeuroQoL), specific to assess the QoL of patients with injuries resulting from diabetic peripheral Neuropathies; Venous Leg Ulcer Quality of Life Questionnaire (VLU-QoL-Br) and the Charing Cross Venous Ulcer Questionnaire (CCUVQ-Brazil), specific to measure QoL of people with venous ulcers; Freiburg Life Quality Assessment-Wound (FLQA-W). The first four are limited to the evaluation of the QoL of patients with other etiologies of chronic wounds. 8-10

So, we decided to perform the translation and cultural adaptation of the instrument called *Wound Quality of Life* (*QoL-Wound*), originally developed by a group of Germans who works with QoL in patients with chronic wounds, into Brazilian Portuguese Language. It consists of 17 items divided into three domains (physical, psychological and daily life aspects), and includes an economic item that is a differential when compared with other instruments.¹¹

The availability of a concise and specific questionnaire to assess the QoL of patients with chronic wounds of any etiology, with satisfactory psychometric properties, in a Brazilian version, shows the relevance of the present study in the professional and social context.¹¹ Thus, the objective of this study

was to translate and adapt the Wound for Quality of Life (QoL-Wound) into the Brazilian Portuguese Language.

METHOD

It consists of a quantitative approach, methodological study, based on the theoretical framework of cultural adaptation and international research validation. The following steps followed, according to the methodological referential adopted.¹²

INITIAL TRANSLATION AND SYNTHESIS

The initial version of the *Wound-QoL* in Portuguese from Portugal was translated into Portuguese from Brazil by two bilingual independent translators whose native language was the Brazilian Portuguese. One of the translators was aware of the study goals and the other was not. The discrepancies were flagged and consensually discussed to reach a synthesis version in a face-to-face meeting.

BACK-TRANSLATION

The synthesis version was back-translated from Portuguese/Brazil into Portuguese/Portugal by two independent translators whose native language was Portuguese/Portugal language and didn't know the objectives of the research.

COMMITTEE OF EXPERTS

A group of experts carefully reviewed all translated and back-translated versions and the initial version of the instrument: an Enterostomal nurse with master's degree in Nursing and knowledge of the subject, two nursing professors with referential methodological knowledge, a PhD in Nursing and a Master in nursing and Enterostomal Therapist and, finally, a translator with degree in Letters and thematic and linguistic knowledge.

Content validation occurred qualitatively by individual analysis of the experts, respecting semantic, idiomatic, experimental and conceptual equivalences with the original instrument. The quantitative process was done calculating the concordance rate, by dividing the number of experts who agreed by the total number of experts. Items with concordance indexes of 90% or more were considered appropriate.¹³

PRE-TEST

The purpose of this step was to obtain knowledge about the instrument terms. We conducted a pre-test with 40 people with chronic wounds that received outpatient care in a university hospital in Paraná.

SUBMISSION OF TRANSLATED VERSION FOR THE ORIGINAL INSTRUMENT AUTHOR'S APPRECIATION

The definitive version of the Wound-QoL in Portuguese/Brazil and a copy of the consolidated version of Portuguese/Portugal were sent by e-mail to the main author of the instrument in case he wanted to suggest changes or questioned the translated version. In addition, requested by the author, an English language version of the final instrument translated into Brazilian Portuguese was sent. After the results of the translation and cross-cultural adaptation process, the main author of the instrument and the researchers who adapted the instrument came to an agreement and formulated the version expressed in Table 4.

PARTICIPANTS AND STUDY LOCATION

The data were collected in two wound treatment ambulatory clinics, specialized in diabetic foot of a public university hospital in Paraná. The pre-test was conducted with 40 patients and the inclusion criteria were: patients with chronic wounds, 18 years old or more who were receiving clinical care in these locations. As exclusion criteria: patients with altered mental or cognitive state, those who did not provide a person responsible for them, illiterate people and patients with tumoral wound due to the harmful character of Neoplasms in the QoL.

DATA COLLECTION

Data collection took place between October and December 2015. A socio-demographic and clinical questionnaire for the participants' characterization was applied, then they filled in the Brazilian version of the instrument *Wound-QoL*, which is self-explanatory and should be filled in retrospect, considering the last seven days. For each evaluated item, the research participant assigned a value from zero (no commitment) to four (maximum commitment) as Likert scale. The average of all items results in the global QoL assessment score. The overall score can only be calculated if at least 75% of the items are answered, that is, at least 13 of the 17 items should be evaluated.¹⁴

The feasibility of the Wound-QoL Portuguese/Brazil version was assessed by the time the participants took to complete it and checked with a specific questionnaire about the facilities and difficulties to fill it. This instrument was made by researchers and addressed the following questions: "did you understand the meaning of the 17 questions of the instrument?"; "If not, please write the question or words you had doubts"; "did you considered filling the Wound-QoL Portuguese/Brazil version easy?"; "If not, please justify your difficul-

ty"; and, finally, "do you have any suggestions to improve this instrument? Which ones?"

STATISTICAL ANALYSES

The data was tabulated in *Microsoft Excel* 2010 version, described and organized in tables and analyzed with the assistance of a professional statistician. For internal consistency of the instrument applied, we calculated Cronbach's alpha coefficient and central tendency (mean) and dispersion (standard deviation) measures, obtained with the aid of the *Statistica* software version 2010. We established evidence of satisfactory internal consistency coefficients \geq 0, 70.13

We used the hypotheses test for the questionnaire about the facilities and difficulties to fill in the *Wound-QoL* Portuguese/Brazil version. Considering the proportion of respondents who understood the items formulated without any doubt, we established a significance level of 5% and chose two hypotheses: H_0 (understanding proportion is \leq 50%) and H_1 (understanding proportion is >50%). The following decision rule was adopted: when the result of the test is equal to or greater than the prescribed significance level, H_0 is accepted; otherwise, H_0 is rejected in the significance level adopted.

ETHICAL ASPECTS

For this study, we requested permission by e-mail to the main author of the *Wound-QoL* instrument, to carry out the translation and cross-cultural adaptation of it in Brazil. After the authorization, we began the process of translation and cross-cultural adaptation of a version already Available from Portugal, according to the main author's suggestion. This study was approved by the local Committee of ethics in research (Opinion n° 1.145.646/2015). The data were collected after participants signed the informed consent.

RESULTS

During the translation procedures, translation and backtranslation synthesis, there were no interferences. The content validity, made by the Committee of experts with regard to the questions contained in the instrument, indicated that the items were suitable. However, eight terms present in ten statements generated more discussion between the Committee components and are listed in Table 1.

All evaluated items of the questionnaire showed a Cronbach's alpha coefficient of 0.878699 which measured the overall internal consistency, and is considered a good result. Table 2 represents the means and standard deviation of all the items assessed in the *Wound-QoL* version Portuguese/Brazil.

Table 1 - Content validation by Committee of Experts

Question	Translated terms	Adapted terms	Agreement in the Committee of experts (%)		
3	Secretion	Liquid	75		
5	Exhausting	Tiring	100		
7	Frustrated	Discouraged	100		
9	Arose	Appeared	75		
11	Transport	Move	100		
13	Quotidian	Daily	100		
6	Felt	Was	100		
14 and 15	Restricted/ Restrict	Limited/limit	100		

Source: author's data, 2016.

Table 2 - Measures of dispersion of the Portuguese/Brazil Wound-OoL items evaluated , Curitiba-PR 2016

Ouestion	Average	SD*
1 I felt pain in the wound	2.55	1.41
2 The wound presented an unpleasant smell	2.70	1.24
3 I had inconvenient liquid in the wound	2.82	1.10
4 My sleep was affected due to the wound	2.57	1.41
5 The wound treatment was tiring for me	2.80	1.15
6 I was depressed because of the wound	2.80	1.26
7 I was discouraged because the healing process took too long	3.25	1.14
8 I was worried because of my wound	3.55	1.01
9 I was afraid that my wound got worse or a new wound appeared	3.57	0.93
10 I was afraid to hit my wound	3.77	0.94
11 It was difficult to move because of the wound	3.10	1.33
12 It was difficult to climb the stairs because of the wound	3.30	1.18
13 I had problems with daily activities because of the wound	3.22	1.27
14 My leisure activities were limited because of the wound	3.67	1.11
15 I had to limit my activities with other people because of the wound	3.42	1.03
16 I was dependent on people's help because of the wound	3.25	1.54
17 The wound was a financial burden for me	3.22	0.94

^{*}SD=standard deviation. Source: autor's data, 2016.

All participants answered the 17 items, that is all the items contained in the instrument *Wound-QoL* Portuguese/Brazil version. The average time that each participant took to fill it was seven minutes. About the understanding of the terms contained in the questionnaire, 32 (80%) respondents understood perfectly the 17 statements. The test of hypothesis presented p-value = 0.00008, which indicates rejection of the null hypothesis (H_0) and confirms the respondents understood the instrument proposed.

At least one question was not understood by eight participants (20%) (Table 3). Despite these doubts, 100% of patients considered easy to fill in the questionnaire, and did not have additional suggestions. Table 4 illustrates the *Wound-QoL* instrument adapted to the Brazilian Portuguese.

Table 3 - Items of Wound-Qol, Portuguese/Brazil version, that generate the participants' doubts, Curitiba-PR-2016

Items misunderstood by participants				No	
				%	
The wound had an <u>unpleasant</u> smell.	39	97.5	1	2.5	
My sleep was <u>affected</u> due to the wound.		92.5	3	7.5	
I was depressed because of the wound.	38	95	2	5	
It was difficult <u>to move</u> because of the wound.		97.5	1	2.5	
I had problems with <u>daily activities</u> because of the wound.		97.5	1	2.5	
My <u>leisure</u> activities were limited because of the wound		95	2	5	
I was <u>dependent</u> on people's help because of the wound		97.5	1	2.5	

Source: autor's data, 2016.

DISCUSSION

The relevance of the present study in the professional and social context is due to the availability of a questionnaire in the Brazilian version, concise and specific to assess the QoL of patients with chronic wounds of any etiology, with psychometric properties.¹¹

The results show that the adapted version of the *Wound-QoL* presented feasible measures for the population with chronic wounds in the Brazilian culture. It might be inferred that almost 88% of the variability in score answered by participants, refer to the true concept to be investigated.

A test is reliable according to its accuracy, whether the items get along or covariate on a given occasion.¹² Thus, the internal consistency of the original questionnaire developed with the German population was similar to this study (0.91 and 0.71), therefore, the results confirm that the adapted *Wound-QoL* questionnaire, has a reliable internal consistency, and is satisfactory to Brazilian culture.¹¹

Similar findings were found in another German study that applied the *Wound-QoL* to 100 patients with chronic wounds of any etiology with Cronbach's alpha between 0.85 and 0.92 for overall score and domains.^{15,16} Another similar research adapted the *Freiburg Life Quality Assessment-Wound* (FLQA-W) to Brazilian Portuguese language, involving 30 patients with CW of any etiology, obtained Cronbach's alpha of 0,86.¹⁰

Table 4 - Wound-OoL adapted to Brazilian Portuguese language

	Research on people with chronic wounds quality of life (Wound-QoL)								
Thr	Through the following information, we would like to know how you felt about your chronic wound(s) in the last seven days.								
Respond to all assertions, mark an X per line.									
In t	ne last seven days,	No	A little	Moderately	Significantly	A lot			
1	I felt pain in the wound	0	0	0	0	0			
2	The wound had an unpleasant smell	0	0	0	0	0			
3	I had inconvenient liquid in the wound	0	0	0	0	0			
4	My sleep was affected due to the wound	0	0	0	0	0			
5	The wound treatment was tiring for me	0	0	0	0	0			
6	I was depressed because of the wound	0	0	0	0	0			
7	I was discouraged because the healing process took too long	0	0	0	0	0			
8	I was worried because of my wound	0	0	0	0	0			
9	I was afraid that my wound got worse or a new wound appeared	0	0	0	0	0			
10	I was afraid to hit my wound	0	0	0	0	0			
11	It was difficult to move because of the wound	0	0	0	0	0			
12	It was difficult to climb the stairs because of the wound	0	0	0	0	0			
13	I had problems with daily activities because of the wound	0	0	0	0	0			
14	My leisure activities were limited because of the wound	0	0	0	0	0			
15	I had to limit my activities with other people because of the wound	0	0	0	0	0			
16	I was dependent on people's help because of the wound	0	0	0	0	0			
17	The wound was a financial burden for me	0	0	0	0	0			

[&]quot;Wound-Qot" questionnaire on Health-related Quality of Life in Chronic Wounds Version Portuguese (Brazil), Augustin et al. 2014, Blome et al. 2014

A methodological research carried out with 50 participants with peripheral diabetic neuropathy and feet ulcers, whose objective was to adapt the *Neuropathy and Foot Ulcer Specific Quality of Life* (NeuroQoL) into Brazilian Portuguese language, achieved satisfactory reliability in terms of Cronbach's alpha coefficient of 0,94.⁷

The instrument feasibility relates to practical aspects of the questionnaire use according to filling time, answering facility and results interpretation.¹³ This process was necessary and showed good applicability of the questionnaire adapted for the Brazilian population, once the approximate time to fill it was seven minutes. It is worth noting that the average age of the participants is 64.6 years old and that all 17 items of the questionnaire were self-completed.

Similar study considered the average response time of the *Charing Cross Venous Ulcer Questionnaire* (CCUVQ-Brazil) of five minutes and 23 seconds. However, the population of this study showed an average age of 56.2 years old and 30% of the sample self-completed the questionnaire, while the rest had the researchers' help to read it, without interference in the answer.¹⁷

As the understanding of the terms contained in the questionnaire on the pre-test phase, 80% of participants considered to have understood perfectly the 17 statements. The cultural equivalence can be established when at least 80% of individuals do not have any kind of difficulty to answer each adapted item.¹³ The hypothesis testing presented p-value= 0.00008, therefore, null hypothesis rejection (H₀), which confirms the respondents understanding of the instrument proposed. Thus, the questionnaire level of understanding was more than 50%, indicating that more than half of the statements were understood by the participants without any doubts.

Although some doubts were mentioned, 100% of individuals considered easy to fill in the *Wound-Qol* Portuguese/Brazil version, with no additional suggestions to improve the instrument. It should be noted that the number of patients who did not understand some words present in the statements of the adapted instrument was eight (20%). Similar findings were found in the process of cultural adaptation of *Freiburg Life Quality Assessment-Wound* to the Brazilian Portuguese Language, plus some misunderstood sentences referred by participants with rates between 66.6% and 33.3%.¹⁰

About sociodemographic and clinics characteristics of the participants included in the pre-test phase, we observed the predominance of male participants, married, with low income and low educational levels. 24 participants, (60%) had had a chronic wound for more than two years. The data found in the sample evaluated were similar to other studies that included people with chronic wounds.^{3.5,10,18}

Such variables may indicate a lifestyle that predisposes to lesions or a lack of access to specialist services, once in the public health system there is unmet demands in some specialty areas such as Angiology and, thus, the evaluation and the systemic approach may occur later, when the lesions are strongly installed.¹⁸

In the literature, there is a negative relationship between chronic wounds and their carriers QoL. It is important to carry out interventional studies and new guidelines that discuss ways to improve an integrated approach to these patients. We reinforce the need to redirect attention to the health of patients with chronic wounds and identify, in daily health care, factors that interfere with this population QoL, once the assessment is an important indicator of the wound healing response evolution. ¹⁷

In the face of international developments in health, some research for cross-cultural adaptation and/or questionnaires validation used in different realities were developed, to improve health care and enable the data comparison to improve the quality of care provided by health services^{10,13} by identifying this gap and the need to develop systematic studies for QoL assessment in patients with chronic wounds.

The Wound-QoL Portuguese/Brazil is a specific instrument to assess QoL in people with chronic wounds and enables actions planning for each patient, including specific situations able to identify and measure their domains. The Portuguese Language version produced in Brazil is semantic and culturally according to the original version and presented satisfactory internal consistency. Its use can promote the expansion of assistance in addition to the technical aspects of therapy, with a global view of the real needs of these individuals, as well as being useful in the context of multidisciplinary scientific research in health.⁵

This process is relevant to nursing, since pertinent information about the quality of life of people with chronic wounds using this instrument (changes in physical, emotional and social domains) will enable decision-taking and application of safe and effective interventions to improve the quality of care. So, nurses must consider aspects beyond the wound and include in their health care approach, aspects that mitigate or exacerbate and interfere in QoL.

Another highlight is the possibility to know the economic impact the wound causes to the patient. We observe, in the

literature, that the cost of wounds treatment, loss of productivity and social impact are onerous. Sometimes, people with chronic wounds have to balance an extended treatment and professional activities, which can lead to treatment neglection or even to permanent removal from work. In Brazil, the El is the 14th cause for temporary removal from labor activities and the 32nd cause of definitive removal. 19,20

So, evaluating the quality of life in relation to chronic wounds becomes a primary advance towards a more humanistic approach, and an effective tool to analyze the impact of the base disease and treatment on the patient's life. It also provides severity indicators and progression of the disease, enabling the development of strategies to relief disorders from the chronicity and treatment.^{5,8}

FINAL CONSIDERATIONS

The cultural adaptation of *Quality of Life Wound* (Wound-QoL) to Brazilian Portuguese version was held as recommends the international methodology, resulting a questionnaire with reliable content, according to the original. The instrument proved to be easy to use, understand and apply.

This scale, translated and adapted, will pass through validation process with at least 100 patients with chronic wounds, featuring the second part of this study.

The instrument proved to be quick and easy to operate, with potential to have a leading role to study quality of life of people with chronic wounds, in Brazil, both in research as in clinical situations involving health workers in a multidisciplinary way.

However, a limitation of this work is being developed in a specific reality, which limits the generalization of results and strengthens the idea that the use of *Wound-QoL* Portuguese/Brazil version should occur in different regions and populations in Brazil.

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