

Translation and cross-cultural adaptation of the Venous Leg Ulcer Self Efficacy Tool for use in a Swiss-French setting

Venous leg ulcers are lesions between the ankle joint and the knee caused by chronic venous insufficiency. The Venous Leg Ulcer Self Efficacy Tool (VeLUSSET) was developed to measure self-care and self-efficacy in English-speaking persons with venous leg ulcers. This study describes the translation and cross-cultural adaptation of the original version of the VeLUSSET from English into Swiss French.

Keywords:

venous leg ulcers; translation; cross-cultural adaptation; self-efficacy

ABSTRACT

Background

Venous leg ulcers are slow-healing wounds.

Objective

The aim of this study was to translate and cross-culturally adapt the original version of Venous Leg Ulcer Self Efficacy Tool (VeLUSSET) from English into Swiss French.

Method/Results

A cross-cultural research study in three outpatient clinics in western Switzerland was conducted following¹ translation of the original instrument into Swiss French by two independent translators,² construction of a consensus version based on both translations,³ two independent back translations of the consensus version into English,⁴ review by an expert committee and construction of a draft questionnaire,⁵ testing of the draft questionnaire on people with a venous leg ulcer and⁶ construction of the final questionnaire version.

Conclusion

This process of translation and cultural adaptation produced a new version of the VeLUSSET for validation and later use among the French-speaking population of Switzerland. An upcoming separate study will investigate the psychometric properties of the adapted questionnaire in the new setting.

Implication for clinical practice

People in different settings have different cultural norms, literacy levels and beliefs and might thus respond differently to clinical tools. The implication for clinical practice is that a translated clinical tool, such as the VeLUSSET questionnaire, might not measure the same concepts in different cultural settings. When using clinical tools, clinicians need to consider the origin of development and testing of the tool and whether cultural expectations, literacy levels or beliefs impact responses and thus the interpretation of the results of the tool.

¹La Source, HES-SO University of Applied Sciences and Arts Western Switzerland, Lausanne, Switzerland.

²Epidemiology, Biostatistics and Prevention Institute, University of Zurich, Zurich, Switzerland.

³Geneva School of Health Sciences, HES-SO University of Applied Sciences and Arts Western Switzerland, Geneva, Switzerland.

Key messages

- The seven-step method of Sousa and Rojjanasrirat provided an accepted best practice structure for translating the English version of the VeLUSSET into Swiss French.
- Further, the translated VeLUSSET_FR was culturally adapted for the Swiss French setting.
- The translated and adapted version of the VeLUSSET questionnaire is ready for validation to establish whether it can be used to measure the self-care of Swiss French venous ulcer patients.

These wounds have a negative impact on all aspects of daily life.⁵⁻⁸

Current therapeutic approaches for VLU focus on wound healing and on preventive measures such as wearing compression stockings, performing leg and ankle exercises, leg elevation and a balanced diet.^{4,9-11} However, adherence to therapeutic recommendations is poor and thought to be due to insufficient knowledge.¹²⁻¹³ This knowledge deficit is related to a low level of self-care and self-efficacy.⁹⁻¹¹ Evidence demonstrates that self-efficacy is a facilitator in the adoption of self-care, which is important in preventing the recurrence of ulcers.¹⁴⁻¹⁵ Based on this socio-cognitive theory, it can be deduced that the ability to adapt behaviour can first be quantified by measuring self-efficacy and second be influenced by targeting self-efficacy.^{14,16} Currently, only one instrument to measure self-efficacy in the VLU population has been developed and validated, the Venous Leg Ulcer Self Efficacy Tool (VeLUSSET).¹⁶ This English-language tool consists of general statements about wearing

INTRODUCTION

Venous leg ulcers (VLUs) are lesions between the ankle joint and the knee caused by chronic venous insufficiency. The occurrence ranges between 0.8 and 2.2 per 1000 people/year.¹ Healing times of VLUs are long, and up to 70% of the patients suffer a recurrence within three months after wound closure.²⁻⁴

Table 1. Study Phases and Steps

Steps	Sousa and Rojjanasrirat	Selected for the study
1	Forward translated to the target language (TL) by two independent translators	Idem
2	Comparison of the two translations and discussion of the discrepancies of the preliminary initial translated version of the instrument in the target language (PI-TL)	
3	Blind back translation of the PI-TL by two independent translators	Adapted
4	Comparison of the two back-translated versions of the instrument (B-TL1 and B-TL2)	
5	Pilot testing of the draft version of the instrument in the target language (P-FTL), sampling 10-40 individuals with 'with questions that are clear and not dichotomous' Conceptual equivalence (clarity) evaluated by 6-10 members of an expert panel.	Separate study ¹⁸
6	Preliminary psychometric testing of the P-FTL with a bilingual sample	Not undertaken
7	Psychometric testing of the P-FTL	Separate study ¹⁸

compression stockings (5 items) and of affirmations about daily self-care tasks (16 items) with which people can agree (or not) on a scale from 0 (total disagreement) to 10 (total agreement). Mean scores for each item can be compared. Its internal reliability as assessed with Cronbach's α is 0.931.¹⁶

This study is the first of two phases of a methodological study. The aims of the first phase are the translation and cross-cultural adaptation of the original English VeLUSSET into Swiss French, based on the seven-step methodology of Sousa and Rojjanasrirat.¹⁷

METHOD

This study describes the translation and cross-cultural adaptation of the original version of the VeLUSSET from English into Swiss French. The second step of the validation of the instrument, the assessment of the psychometric properties of the translated version, is described elsewhere.¹⁸

Instrument

The original version of the VeLUSSET was developed to measure self-care and self-efficacy in English-speaking persons with VLU. The tool assesses 30 items on a self-reporting basis. The items assess the 5 dimensions of self-efficacy for persons with VLU: conducting general self-care (5 items), daily self-care tasks (12 items), normal living (4 items), developing expertise (6 items) and avoiding trauma (3 items).

The scale was developed using a focus group approach of persons with VLU. The items were written in the form of statements based on self-efficacy findings. This formulation assessed a person's understanding of the aetiology of his or her ulcer and provides the latest recommendations on self-care to be adopted. The scale ranges between 0 (totally disagree) and 10 (totally agree). The reported Cronbach's α of the total scale has been reported as 0.931 and 0.834, with 0.851, 0.753, 0.828 and 0.804 for the subscales, respectively. The assessed test-retest reliability over a four-week interval was excellent ($r = 0.92$; $n = 20$; $P < 0.001$).¹⁶

Translation process

The accepted method of instrument translation and cultural adaptation suggested by Sousa and Rojjanasrirat was adapted using four of their seven steps (see figure 1) that are applicable to the context of this study. Additionally, an expert committee was consulted; it focused on the technicality of the instrument and the precision of the terms to be translated.¹⁷ All experts concurrently considered the content, semantic, technical, criterion and conceptual equivalence of the tool. Step six of the pilot test was not done due to the non-availability of bilingual participants, while the seventh step of psychometric testing was conducted in a separate study and is described elsewhere.¹⁸

Table 2. Translation process - an example

Original English Version	Forward translation	Backward translation	Draft version
I am confident that: I understand why I need to wear my compression stockings for the rest of my life.	<i>Translator 1:</i> Je suis convaincu de ce qui suit: je comprends pourquoi je dois porter les bas de contention pour le restant de mes jours.	<i>Translator 3:</i> I have confidence in the fact that: I understand why I will need to wear my compression stockings for the rest of my life.	J'ai confiance que: je comprends pourquoi je dois porter les bas de compression pour le restant de mes jours.
	<i>Translator 2:</i> J'ai confiance dans le fait que: je comprends pourquoi j'aurais besoin de mettre mes bas de compression pour le restant de ma vie	<i>Translator 4:</i> I am confident that: I understand why I will need to put my compression stockings for the rest of my life.	

RESULTS

The translation process is outlined in the following description of the four steps described by Sousa and Rojjanasrirat.¹⁷ Four (French and English) bilingual experts with similar academic backgrounds – three PhD holders with a health science background and a translator unfamiliar with medical terminology – carried out the translation blindly and independently. Two experts independently forward translated the instrument from the original language to the target language. As a second step, two other experts back translated the translated version into the original language. The four translators and the first and last authors of this article then compared the two back-translated versions with the original version, and a consensus version was elaborated. The example in Table 2 illustrates the process.

DISCUSSION

The aim of this study was to translate and cross-culturally adapt the original version of the VeLUSSET

from English into Swiss French using an adapted version of the accepted method of Sousa and Rojjanasrirat.¹⁷ This adaptation was crucial to responding to the specific circumstances of the setting and to ensure a coherent methodology.¹⁷ It is essential that the literal meaning of a word be translated, along with its relationship to the context.¹⁹ This is important because some terms or concepts used in health care language do not exist in other languages. Evidence shows people from different cultural backgrounds respond differently to clinical tools.²⁰

Conclusion and recommendation for practice

The translation and cultural adaptation of the VeLUSSET questionnaire from an English-speaking setting to a French-speaking setting in Switzerland will now allow for the assessment of psychometric properties.

REFERENCES

- Berenguer Pérez M, López-Casanova P, Sarabia Lavín R, González de la Torre H, Verdú-Soriano J. Epidemiology of venous leg ulcers in primary health care: Incidence and prevalence in a health centre-A time series study (2010-2014). *Int Wound J*. 2019 Feb; 16(1):256-65.
- Abbate LPF, Lastoria S, de Almeida Rollo H, Ometto Stolf H. A sociodemographic, clinical study of patients with venous ulcer. *Int J Dermatol*. 2005 Dec; 44(12):989-92.
- McDaniel HB, Marston WA, Farber MA, Mendes RR, Owens LV, Young ML, et al. Recurrence of chronic venous ulcers on the basis of clinical, etiologic, anatomic, and pathophysiologic criteria and air plethysmography. *J Vasc Surg*. 2002 Apr; 35(4):723-8.
- Finlayson K, Wu M-L, Edwards HE. Identifying risk factors and protective factors for venous leg ulcer recurrence using a theoretical approach: A longitudinal study. *Int J Nurs Stud*. 2015 Jun; 52(6):1042-51.
- Green J, Jester R. Health-related quality of life and chronic venous leg ulceration: Part 1. *Br J Community Nurs*. 2009 1 Dec; 14(6):12-7.
- Green J, Jester R, McKinley R, Pooler A. Patient perspectives of their leg ulcer journey. *J Wound Care*. 2013 Feb; 22(2):58-66.
- Green J, Jester R, McKinley R, Pooler A. The impact of chronic venous leg ulcers: A systematic review. *J Wound Care*. 2014 2 Dec; 23(12):601-12.
- Guarnera G, Tinelli G, Abeni D, Di Pietro C, Sampogna F, Tabolli S. Pain and quality of life in patients with vascular leg ulcers: An Italian multicentre study. *J Wound Care*. 2007 Aug; 16(8):347-51.
- Finlayson K, Edwards H, Courtney M. Factors associated with recurrence of venous leg ulcers: A survey and retrospective chart review. *Int J Nurs Stud*. 2009 Aug; 46(8):1071-8.
- Finlayson K, Edwards H, Courtney M. Relationships between preventive activities, psychosocial factors and recurrence of venous leg ulcers: A prospective study. *J Adv Nurs*. 2011 Oct; 67(10):2180-90.
- Brown A. Self-care strategies to prevent venous leg ulceration recurrence. *Pract Nurs*. 2018 Apr; 29(4):152-8.
- Finlayson K, Edwards H, Courtney M. The impact of psychosocial factors on adherence to compression therapy to prevent recurrence of venous leg ulcers. *J Clin Nurs*. 2010 May; 19(9-10):1289-97.
- Van Hecke A, Grypdonck M, Beele H, Vanderwee K, Defloor T. Adherence to leg ulcer lifestyle advice: Qualitative and quantitative outcomes associated with a nurse-led intervention. *J Clin Nurs*. 2011 Feb; 20(3/4):429-43.
- Bandura A. Self-efficacy mechanism in human agency. *Am Psychol*. 1982; 37(2):122-47.
- Richard AA, Shea K. Delineation of self-care and associated concepts: Self-care concept delineation. *J Nurs Scholarsh*. 2011 Jul; 43(3):255-64.
- Brown A, Kendall S, Flanagan M, Cottee M. Encouraging patients to self-care—The preliminary development and validation of the VeLUSSET®, a self-efficacy tool for venous leg ulcer patients, aged 60 years and over. *Int Wound J*. 2014 Jun; 11(3):326-34.
- Sousa VD, Rojjanasrirat W. Translation, adaptation and validation of instruments or scales for use in cross-cultural health care research: a clear and user-friendly guideline: Validation of instruments or scales. *J Eval Clin Pract*. 2011 Apr; 17(2):268-74.
- Probst S, Turcotte M, Buehrer Skinner M. Internal consistency and reliability of the Swiss-French translation of the Venous Leg Ulcer Self Efficacy tool (VeLUSSET). *BMJ Open*. 2019 Dec; 9(12):e031529.
- Esposito N. From meaning to meaning: The influence of translation techniques on non-English focus group research. *Qual Health Res*. 2001 Jul; 11(4):568-79.
- Dunckley M, Hughes R, Addington-Hall JM, Higginson IJ. Translating clinical tools in nursing practice. *J Adv Nurs*. 2003 Nov; 44(4):420-6.