

Cross-cultural adaptation of the Nordic Occupational Skin Questionnaire (NOSQ-2002) from English to Castillian (Spanish) and Catalan

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Introduction

Occupational dermatitis is a frequent occurrence in the industrialized countries. Contact eczema accounts for 90-95% of reported occupational skin diseases. The prevalence of hand eczema in the general population ranges from 2.5 to 8.8% in men and 5.4 to 14.6% in women. Amongst the working population, prevalences of up to 32% have been recorded.

There are few tools available to screen for dermatitis in the working population. Differences between different self-report questionnaires and diagnosis-based symptom lists make it difficult to compare results between different studies and countries.

A group of researchers from the Nordic countries developed the "NOSQ-Nordic Occupational Skin Questionnaire" in an attempt to harmonize study methods between countries and to make available a

standardized tool which would improve comparability between studies. The NOSQ-2002 was developed from existing, well-used questionnaires: Finnish Tuohilampi Questionnaire, Copenhagen Allergy Study 1990 and 1998, Danish Work Environment Cohort Study (DWECS) and the Swedish study by B. Meding and collaborators. The final version of the questionnaire has several advantages with respect to others available as it includes questions on exposure and takes into account occupational urticaria. The Scandinavian Ministry funded the Project, which was developed in English. (1)

The long and short versions of the questionnaire are available in Danish, Swedish, Finés, Icelandic, and Norwegian. The questionnaires can be downloaded at www.ami.dk/NOSQ. Commercial use of the questionnaires is prohibited.

Objectives

In response to a request from the developers of the Nordic Occupational Skin Questionnaire, we decided to perform the cross-cultural adaptation of the short and long versions of the NOSQ-2002 to Castilian and Catalan for use in Spain and Cataluña. Permission for the adaptation was granted by the original developers.

Materials and methods

NOSQ-2002/SHORT is a simple 4 page questionnaire which is useful in detecting eczema of the hands and forearms in the workplace. It consists of 13 questions grouped into 4 categories. The long version of the questionnaire (NOSQ-2002/LONG), consists of 57 questions grouped in 10 dimensions. The questionnaire can be adapted to specific professional groups.(1)

The cross-cultural adaptation of the NOSQ-2002 to Castilian and Catalan was carried out according to guidelines in the literature (Kvamme OJ et al., 1998 (2); Bjorner JB et al., 1998 (3), and the guidelines of the International Society for Pharmacoeconomics and Outcomes (ISPOR) (4). (Fig.1) The aim of this stage of the process was not to produce a literal, "word for word" translation, but to ensure that the original meaning of the items was correctly transmitted into the target language to ensure comparability (Herdman M et al, 1998 (5)). A further aim was to ensure that the questionnaire was expressed in easily understood, colloquial terms.

In order to test the first version of the NOSQ-2002/LONG for clarity, comprehension and ease of use, the Castilian and Catalan versions were administered to a total of 25 patients with skin problems attending the Dermatology Department of the Hospital del Mar IMAS, Barcelona. Of these, 15 patients were included in the first phase of pilot testing and, after modifications and back translation, a semi-definitive final version was administered to a further 10 patients for the two target languages. Patient opinions on the questionnaires were elicited using cognitive debriefing techniques.

Results

Questions which did not require further modification were considered to be those in which a fairly literal translation was sufficient to achieve an equivalent item in the target language. (Fig.2) For the NOSQ-2002/LONG, in the Castilian and Catalan versions, 22 and 30 questions respectively were considered to be equivalent after literal translation.

In the Castilian version, 39 questions (68%) required some degree of cultural adaptation. These were classified in 7 groups (Table 1) (Figs. 3, 4). In the Catalan version, cultural adaptation was necessary in 25 items (43%).

After back translation, the original developers suggested that 5 (13%) of the 35 items modified for cultural adaptation in the Castilian version were no culturally equivalent. In the Catalan version, a further two modifications were done. After the second round of cognitive debriefing interviews, only one question was further modified in the Castilian version.

Table 1. Modifications to items of the NOSQ-2002 during the adaptation process into Castilian.

Castillian (Spanish) modified questions	ITEMS
New categorizations	G1,G4,G7,T2,E7
Definition inclusion	A2,A3,A4,D1,D2
Inclusion if informative explanation	D10,D12,F1,F2,U5,U9,E3,E5
Word or synonymous inclusion	G6,A1,D3,D4,D7,D9,C2,C3,U1,U2,U3,U4,U5,U6,U7,U8,S1,S2
New indication inclusion	Previous indication D8 and D9 Posterior indication to U5 question.
	Inside indication at U1 Inside indication at E1,E6,E7
Answer order changes	F1,C1,E7
Design modifications – Frame inclusion	D8-D9,U6-U7

Discussion and conclusion

This study has enabled us to produce Castilian and Catalan version of the NOSQ-2002 questionnaire for use in Spain and Cataluña. This is the first, required phase in the production of a validated version of the questionnaire in these two languages. Workplace dermatitis, and particularly contact eczema of the hands and forearms as well as urticaria have a considerable social and economic impact. NOSQ-2002 will be a useful tool to permit valid, international comparisons in multi-center studies in different countries.

Although the long version of the questionnaire is now available in Castilian and Catalan and can be accessed at www.arbejdsmiljoforskning.dk, a validation study of the questionnaire should be the next step in the development process.

References

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Fig.1 Flow chart of the cross-cultural adaptation process used to develop the Castilian and Catalan versions of the "Nordic Occupational Skin Questionnaire (NOSQ-2002)".

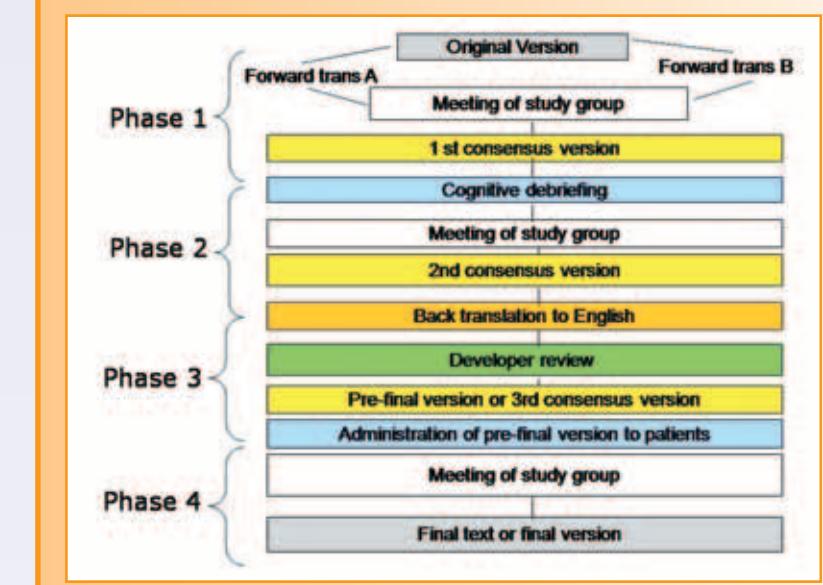


Fig.2 Items which only required literal translation and were therefore considered 'equivalent'.

D5. When did you last have eczema on your hands, wrists or forearms? (one answer in each column if applicable)		
	Hand eczema	Wrist/Forearm eczema
I have it just now	3	3
not just now but within the past 3 months	4	4
between 3-12 months ago	5	5
more than 12 months ago	6	6
In which year was the last time? _____ (year) _____ (year) (make your best estimate)		
D5. ¿Cuando fue la ultima vez que tuvo eczema en las manos, muñecas o en los antebrazos? (una respuesta por columna si procede)		
	Eczema en mano	Eczema en muñeca
Lo tengo precisamente ahora	3	3
Ahora pero, si dentro los últimos 3 meses	4	4
Hace entre 3 y 12 meses	5	5
Hace más de 12 meses	6	6
¿En qué año fue la última vez que tuvo eczema? _____ (año) _____ (año)		

Fig.3 Item requiring Cultural adaptation. Item modified to include a definition

A2. Have you ever had "hay fever" or other symptoms of nasal allergy, e.g. from pollen or animals?	
No <input type="radio"/> Yes <input type="radio"/> Don't know <input type="radio"/>	
A3. Have your eyes ever shown allergic symptoms, e.g. from pollen or animals?	
No <input type="radio"/> Yes <input type="radio"/> Don't know <input type="radio"/>	
D1. Have you ever had hand eczema?	
No <input type="radio"/> Yes <input type="radio"/>	
A2. ¿Ha tenido alguna vez alergia nasal (olor del polen) o otros síntomas relacionados con la alergia nasal, por ejemplo, por polen, por animal, estornudos frecuentes? (por polen, animales u otros)	
No <input type="radio"/> Si <input type="radio"/> No sé <input type="radio"/>	
A3. ¿Alguna vez sus ojos han mostrado síntomas de alergia, por ejemplo, por polen, lagrimeo, congestión? (por polen, animales u otros)	
No <input type="radio"/> Si <input type="radio"/> No sé <input type="radio"/>	
D1. ¿Ha tenido alguna vez eczema en las manos? (por ejemplo, en el trabajo, en el hogar, en el jardín, en el agua, en la ropa)	
No <input type="radio"/> Si <input type="radio"/>	

Fig.4 Item requiring Cultural adaptation. Item modified to include further explanatory text or synonym.

G6. What is your major activity at work?	
Since when? _____ (year)	
D3. Shade areas on the hands or forearms where you commonly have eczema (one or more areas)	
Piel de la mano → Múltiples → Dorsos de las manos → Antebrazos	
G6. ¿Qué es su principal función o actividad en el trabajo?	
¿Desde qué año realiza esta función o actividad?	
D3. Indique en el dibujo y conténde en qué zona de las manos y de los antebrazos se desarrolla su eczema (una o más de un área)	
Piel de la mano → Múltiples → Dorsos de las manos → Antebrazos	