The Need for Linguistically and Culturally Adapted Standard Questionnaires to Assess Itch: A Preliminary Study

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Itch was defined as an unpleasant sensation leading to the need to scratch already in 1660 (1, 2). Nonetheless, the lexicon regarding to itch varies depending on languages, cultures and historical periods.

The adequate understanding of the sensations experienced by patients is undeniably crucial in the patient–doctor relationship and indispensable for clinical trials, investigations into quality of life, psychological studies and pathophysiological research. The International Working Group on Pruritus Research (AGPI) (3) and the International Forum for the Study of Itch (IFSI) (4) underline the need for standard and validated questionnaires for the assessment of itch (5). Itch is also frequently associated with other sensations (pain, burning, tingling, tickling, prickling, tightness or stinging) (6–8). Only a reliable assessment can accurately evaluate the effects of treatments for pruritus (9).

Designing a structured itch questionnaire should consider both the patient's and the doctor's perspectives as well as the need to gather important medical information (5). High-standard translations and cross-cultural adaptations are crucial as previously shown in a comparative study on pain (10). We studied the term of itch and close sensations in over 20 languages.

METHODS

Dermatologists who are IFSI members received the questionnaire as well as 6 native speakers of Greek, Russian, Vietnamese, Breton and Brazilian Portuguese. The questionnaire was sent to 34 IFSI members and we received 21 answers. They were asked to translate English words such as pruritus, itch, itching, pain, burning, tingling, tickling, pricking, prickling, tightness, stinging and scratching into their own language. In addition to this translation work, the respondents were asked to give other terms that describe symptoms or sensations on account of pruritus such as adjectives, verbs and nouns, onomatopoeia, and mimetic words. The last two elements can be classified as ideophones, which are defined as marked words that depict sensory images (11) and considers the linguistic particularities of certain languages that cannot be translated into others. We collected terms linked to itch in 27 languages and classified them according to their language families (12) (Table SI[1]). Note that in our study each variety of a given language is considered a distinct language (French and Canadian French; Spanish and Cuban Spanish; Portuguese and Brazilian Portuguese) because cultural differences give rise to the development of different vocabularies and expressions (13). For example, the Spanish language has many varieties in 21 sovereign states and dependent territories. Languages such as the Arabic, Celtiberian, Basque and East Germanic languages with which the Spanish language has come in contact have had a lexical influence such as word borrowings on Spanish (14, 15).

RESULTS

The languages collected and classified by language family are as follows: two Afro-Asiatic, one Austro-Asiatic, 20 Indo-European (3 Balto-Slavic, 1 Celtic, 4 Germanic, 1 Hellenic, 2 Indo-Iranian, and 9 Italic), 1 Japonic, 1 Koreanic, 1 Turkic, and 1 Uralic. We first focused on the existence of two different terms, that is, pruritus and itch. Our data set shows that a single word is used for both pruritus and itch in 13 languages; two different terms are distinctively used in 10 languages; and in 4 languages not only does the term pruritus exist, but the term equivalent to itch is also interchangeable with the former and vice versa, see **Table I** for the lists of languages.

Since the English language has several words that describe similar sensations such as tingling, pricking, prickling and stinging, we took a closer look at words that express a 'sensation of as though a sharp point were sticking into one'. Nineteen languages have 2, 3 or 4 different words that express this sensation, and ≥5 terms are present in 8 languages. Among the varieties of the same languages included in our study, none of the corresponding terms are the same between the two varieties of Spanish (Spain and Cuba) and between the two varieties of Portuguese (Portugal and Brazil) whereas no fundamental difference is found in the two varieties of French (France

Table I. Language groups depending on the existence of two different terms, pruritus and itch

Same	Different	Both
Berber/Tamazight[a]	Vietnamese[b]	Danish[c]
Arabic[a]	Croatian[c]	Japanese[d]
Polish[c]	Catalan[c]	Korean[e]
Russian[c]	Spanish[c]	Finnish[g]
German[c]	French[c]	
Swedish[c]	Canadian French[c]	
Greek[c]	Portuguese[c]	
Marathi[c]	Brazilian Portuguese[c]	
Hindi[c]	Romanian[c]	
Cuban Spanish[c]	Breton[c]	
Italian[c]		
Luxembourguish[c]		
Turkish[f]		

[a]Afro-Asiatic; [b]Austro-Asiatic; [c]Indo-European; [d]Japonic; [e]Koreanic; [f]Turkic; [g]Uralic. Same = one word for pruritus and itch; Different = two distinctive words for pruritus and itch respectively; Both = two distinctive words that can be interchangeably used for pruritus and itch.

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and Québec, Canada). All 27 languages turned out to have their own terms equivalent to itching, pain, burning, tickling, tightness and scratching (Appendix S1[1]). Some other terms linked to pruritus symptoms or sensations are proposed in Canadian French, Croatian, Portuguese and Turkish; and ideophones are used in Japanese, Korean, Vietnamese and Turkish.

DISCUSSION

The present study is a preliminary framework for the creation of standard and validated questionnaires considering cross-cultural and linguistic adaptations. Twenty-seven languages classified into 6 language families are included in our study. We first grouped the languages into 3 types depending on the existence of two different terms, that is, pruritus and itch. This result cannot be analyzed in terms of language families, since the number of languages in each language family is not uniformly distributed. Even within the Italic subfamily (9 languages) of the Indo-European language family, the existence or use of the two terms seems to be under the influence of each country's culture rather than the term's linguistic origin. However, languages whose vocabulary has an important number of Chinese borrowings such as Vietnamese, Japanese and Korean have different terms for pruritus and itch. It is noteworthy that 'pruritus' is a somewhat scholarly term or medical jargon in many languages. Most of the general public has never heard of the word whereas 'itch' is very commonly used. Regarding the words that express a sensation, such as tingling, pricking, prickling and stinging, the number of equivalent words differs depending on the languages. In addition, the words that express these sensations are not the same between the two varieties of Spanish (Spain and Cuba), and between the two varieties of Portuguese (Portugal and Brazil). This emphasizes the need to create standard questionnaires adapted to each country, not only to each language.

Onomatopoeia or mimetic words that describe scratching sounds are found in Vietnamese, Japanese, Korean and Turkish. These are languages in which ideophones have a wide range of meanings.

The use of a questionnaire in English is a descending method that can possibly prevent an exhaustive list of words to describe pruritus symptoms despite the box provided for 'other terms' in the questionnaire. In addition, the few other terms obtained are the respondents' personal vocabulary. We chose the descending method for its simplicity, which is nevertheless sufficient for a preliminary study to reveal what to complement. It would be relevant to adopt an ascending or data-driven method, i.e. the collection of words that patients use to describe their symptoms by recording them. These recordings will allow realistic questionnaires with the patients' own vocabulary to be designed.

The need to create standard questionnaires for better diagnosis of pruritus has been claimed by AGPI (3) and IFSI (4). The present preliminary study confirms the need and proposes a method for the creation of standard and validated questionnaires. It will be necessary to form an international multicenter research team to collect and analyze recording data and create questionnaires that are adapted to each country.

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