

Application of the *Bother* Concept Across Cultures

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OBJECTIVE

The objective of this study was to determine the applicability of the *bother* concept as used in Patient Reported Outcomes (PRO) instruments across languages and cultures. In American English, the concept of *bother* is versatile in that it may connote negative mental states and physical sensations as well as social disturbances. Because of this versatility, the concept may have different meanings across languages and cultures. In observing the term *bother* in Patient Reported Outcomes instruments, it will be determined whether the concept remains equivalent across cultures.

BACKGROUND

An observational study on the versatility of the word *bother* was conducted by Dylan Glynn, in which 2,000 statements were selected at random (*annoy* and *hassle* were also observed). *Bother* appeared in the context of physical pain only seven times out of the 2,000. It was additionally discovered that *bother* is most commonly found in the context of “imposition, condemnation and tease” (Glynn, 2010).

The degree of *bother* resulting from a condition or treatment is frequently measured in clinical trials through the use of PRO instruments. Upon developing an instrument on urinary tract problems, the concept of *bother* became difficult to measure, as the term is ambiguous in nature. In order to prevent confusion, *bother* needed to appear in conjunction with definitions of symptoms (Coyne, 2008).

LINGUISTIC VALIDATION

Linguistic Validation is a process that is conducted to confirm that a PRO questionnaire is acceptable for use in different languages and in different cultural contexts. Without this careful development of a translation and subsequent cognitive debriefing, one could not be reasonably certain that the adapted instrument is both conceptually equivalent to the original and can also be clearly understood by the average individual. The linguistic validation process begins with two translators independently translating the instrument into the target language. The translators then exchange drafts and work together to develop one reconciled or “harmonized” version. At that point, the harmonized translation is provided to a third translator who translates the text back into English without access to the original English. Both the harmonized translation and the English back translation are reviewed by a project manager and a survey research expert; adaptations to the translation are made as needed. Once the final translation has been approved, it is debriefed among in-country native speakers of the language, with varying demographic and educational backgrounds, to check for conceptual equivalence and clarity.

METHODS

To determine the meaning of *bother* and its derivatives, *bothered* and *bothersome* across many languages and cultures, translators, interviewers, and general population subjects from multiple culturological disciplines were asked to fill out a questionnaire following the translation and cognitive debriefing of a psoriasis PRO instrument which contained *bother* as the key concept. Translators were asked to provide the equivalent of *bother* for their target language, evaluate the difficulty of appropriate terminology selected, and provide an explanation of any conceptual distinctions between the target language and English terms. Interviewers explained how they defined the concept for subjects who were not able to paraphrase the term during the cognitive debriefing interviews. General population subjects provided elaboration of the concept within their native languages.

Of the 153 respondents, twenty-one were interviewers, thirty-six were translators and ninety-six were interview subjects. To further investigate the concept of *bother*, all back-translations and cognitive debriefing data resulting from linguistic validation of the translated instrument were analyzed. In an analysis of back-translations, there was focus on the how the term *bother* was translated, and compared with a control term *skin*. Additionally, all instances where *bother* was mentioned and/or paraphrased incorrectly in cognitive debriefing were observed.

RESULTS

Breakdown of Sample			
Subjects, N=96			
Average Age:	48.4	Average Education:	13.1 years
Standard Deviation Age:	14.6	Standard Deviation Education:	3
Min-Max Age:	22-84	Min-Max Education:	6-24 years
Males-Females:	39-57		
Interviewers, N=21			
Average Age:	44.5	Average Education:	17.5 years
Standard Deviation Age:	12.1	Standard Deviation Education:	2.4
Min-Max Age:	28-72	Min-Max Education:	13-22
Males-Females:	5-16		
Linguists, N = 36			
Average Age:	49.4	Average Education:	17.9
Standard Deviation Age:	10.7	Standard Deviation Education:	2.3
Min-Max Age:	29-72	Min-Max Education:	15-22
Males-Females:	11-25		
Total, N = 153			
Average Age:	48.2	Average Education:	14.8
Standard Deviation Age:	13.5	Standard Deviation Education:	3.6
Min-Max Age:	22-84	Min-Max Education:	6-24
Males-Females:	55-98		

Languages – Countries Represented

- Arabic – Israel
- Bulgarian – Bulgaria
- Czech – Czech Republic
- Danish – Denmark
- Dutch – Belgium
- Dutch – Netherlands
- English – Canada
- English – Israel
- English – UK

- French – Belgium
- French – Canada
- German – Austria
- German – Germany
- Hebrew – Israel
- Hungarian – Hungary
- Italian – Italy
- Japanese – Japan
- Norwegian – Norway

- Polish – Poland
- Romanian – Romania
- Russian – Israel
- Russian – Russia
- Spanish – Columbia
- Spanish – Mexico
- Spanish – Spain
- Spanish – US

- In back translations of the observed survey instrument, *bother* was back translated as a different term 55% of the time
 - In 20% of all back translations, *bother* was back translated as a term that was not conceptually equivalent
- In back translations of the observed survey instrument, the control term *skin* was back translated as “skin” 100% of the time.
- Subjects in 39% of language/country pairs had difficulty paraphrasing *bother*
- 16% of individual cognitive debriefing subjects had trouble paraphrasing *bother*
- Subjects correctly paraphrased the control term *skin* 100% of the time

Cognitive Debriefing results	
Arabic – Israel	Two subjects suggested deleting the term مضايقتك (<i>bothered</i>), since it is very similar in meaning to انزعاجك (<i>troubled</i>). One suggested replacing it with منزعج (<i>upset</i>), throughout the questionnaire.
English – UK	One subject was confused as to whether <i>bother</i> referred to physical or mental <i>bother</i> .
French – Canada	One subject did not understand the word “l’importunité” (<i>bothersomeness</i>) and suggested using “le dérangement” (<i>bothersomeness</i>) instead.
German – Austria	One subject noted that he makes no distinction in meaning between the words “störend” (<i>bothered</i>) and “lästig” (<i>troubled</i>).
German – Germany	One subject suggested deleting “störend” (<i>bothered</i>) from [one of] the question[s]. Two subjects would replace “störend” (<i>bothered</i>) with “belastend” (<i>troubled/stressed</i>).
Italian – Italy	One subject suggested replacing “misura del fastidio causato” (<i>bothersomeness measure</i>) with “valore del malessere dovuto” (<i>discomfort value</i>) while another suggested replacing “fastidio” (<i>bothersomeness</i>) with “turbamento” (<i>bothersomeness</i>). One subject suggested replacing “infastidisco” (<i>bothered</i>) with “infastidisco” (<i>bothered</i>); another one suggested replacing “infastidisco” (<i>bothered</i>) with “disturbano” (<i>disturbed</i>).
Spanish – Spain	Two subjects suggested using only “molestias” (<i>bothered</i>) and not “preocupación” (<i>troubled</i>).

Cognitive Debriefing Demographics		
Gender		
Males:	N = 64	
Females:	N = 65	
	Age	Education
Average	47.2	13.2
Median	47	13
Standard Deviation	14.9	3.2
Minimum - Maximum	18 - 84	6 - 24

Reasons provided for translation difficulty	
Language - Country	Reason
Bulgarian - Bulgaria	Too many meanings
Dutch - Belgium	Term is too ambiguous
Polish - Poland	Definition dependent upon context
German - Germany/Austria	Range of meanings
Hungarian - Hungary	No exact equivalent
French - Belgium	(respondent indicated difficulty but did not specify)

Common Bother Synonyms provided					
Respondent	Trouble	Annoy	Disturb	Discomfort	Other*
Subjects	16.0%	9.6%	6.4%	21.3%	46.8%
Interviewers	20.0%	15.0%	20.0%	30.0%	15.0%
Linguists	33.3%	16.7%	22.2%	16.7%	11.1%
Total	18.9%	11.4%	10.6%	22.0%	37.1%

*Examples of terms in *Other* category: *Embarrass, uneasy, stressed, hindrance, worry, anxious, unpleasant, burden, last, difficulty, interfere, displeasure, hassle*

FINDINGS

The results of an instrument including the *bother* concept could be diverse, depending on its interpretation. To demonstrate how results may be skewed, observe the following item, as it may be interpreted across respondents:

- How much is your psoriasis *bothering* you in terms of scaling and flakiness?
- How much is your psoriasis *troubling* you in terms of scaling and flakiness?
- How much is your psoriasis *annoying* you in terms of scaling and flakiness?
- How much is your psoriasis *disturbing* you in terms of scaling and flakiness?
- How much is your psoriasis *discomforting* you in terms of scaling and flakiness?

This demonstrates, for example, that while something such as psoriasis may be “annoying” to someone, it may not be showing “discomfort.” Furthermore, as discovered in debriefing, the various interpretations of *bother* may cause confusion as to whether it is in the context of mental *bother* or physical *bother*. Given that one question can vary in interpretation amongst many respondents, the quality of data may be compromised. Variations in interpretation of the concept may prevent the pooling and comparison of data across languages, as well. One such example revealed in the questionnaire to subjects is that while Dutch speakers consider *bother* to describe chronic pain, Norwegian speakers consider *bother* to be temporary. Additionally, in cognitive debriefing, it was revealed that English UK speakers found it difficult to determine whether *bother* is to be used in a mental or physical context.

CONCLUSIONS

When developing the wording of PRO instruments, the concepts and terminology chosen should be applicable across different languages to allow for the pooling and comparison of data. While all respondents understood *bother* to have a negative connotation, a large variety of definitions and synonyms provided across languages shows a lack of conceptual equivalency. Given the fragmented results from the questionnaires we distributed to linguists, interviewers and subjects, the variable *bother* may not be the most ideal measurement of degree of symptom severity in a PRO instrument. Due to the ambiguity of the concept across many cultures, there may be negative effects on the translation of the term. Therefore, in the development of Patient Reported Outcomes instruments, ambiguous terms such as *bother* or like synonyms should be reconsidered if the instrument will be translated into languages other than English.

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