

Italian Translation and Cross-Cultural Adaptation of a Back Pain Screening Questionnaire (Start Back Screening Tool)

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Parole chiave: Dolore lombare, questionario, Start Back Screening Tool, traduzione, linguistica, culturale

Abstract

Background. Low back pain is a heterogeneous condition, from which most patients recover after a few months. However, a considerable proportion of patients develop chronic pain despite different types of treatment. Primary care evidence-based guidelines for non-specific back pain highlight the importance of identifying indicators of poor prognosis in order for treatment to be appropriately targeted. The Start Back Screening Tool Questionnaire (SBST) is a prognostic tool developed and validated to identify subgroups of patients and guide the decision-making process for the initial primary care of the acute back pain.

Aims. The aim of this project is the translation and the cross-cultural adaptation of an Italian SBST version. The development of a reliable and validated questionnaire would be useful for different health professionals in the management of low back pain.

Methods. The translation and validation of this tool was divided in different steps, following the guidance of questionnaire translation: contact with the SBST developers, translation from English to Italian, synthesis, retranslation from Italian to English, expert committee review, test of the pre-final version on 30 individuals with LBP, and the final version being approved by the original Authors.

Result. For the linguistic translation it was necessary to make some semantic variations. The interviewed participants reported a good general understanding of the questions. However, 6 subjects (14%) wondered if two questions were related to back pain or general health. After discussion within the expert committee and with the SBST developer, the wording was modified to add a reference to back pain in these two questions. The Italian version of STST is now ready for validation.

Introduction

Low back pain (LBP) is one of the major public health problem as it is the most prevalent and costly musculoskeletal problem in today's economically advanced societies and may lead to long-term disability combined with frequent use of health services (1).

Low back pain is a heterogeneous condition, from which most patients recover after a few months; however, many patients do not, and frequent relapses are common within the year following the first visit (2, 3).

Risk factors for LBP are multidimensional, with physical attributes, socioeconomic status, general medical health, psychological

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status, and environmental factors all contributing (4). Serious underlying conditions are rare (5). Since patients with low back pain are often seen in the consultation room and occupy significant resources in general practice, caretakers and researchers have tried to identify those patients with the highest risk of a poor outcome (3).

Primary care evidence-based guidelines for non-specific back pain highlight the importance of identifying indicators of poor prognosis in order for treatment to be appropriately targeted (6, 7).

Indeed, there is evidence that better identification of prognostic indicators leads to more effective treatments for back pain in primary care (8, 9).

Subgrouping patients into risk strata by the Start Back Screening Tool has been suggested to target treatment to modifiable factors that are causally related to outcome among sub-groups of patients presenting with LBP in primary care (10).

The SBST is a brief validated tool designed to screen primary care patients with low back pain for prognostic indicators that are relevant to initial decision making. The SBST is being used by a range of clinicians to identify patients at risk of persistent symptoms (11). This tool is a self-compiled questionnaire that can predict persistent and disabling symptoms or poor treatment outcome. The predictability of SBST has been demonstrated in observational studies in which there were few improvements in the low back pain population classified as “High Risk” by the questionnaire (12, 13).

It is based on the presence of potentially modifiable physical and psychological indicators identified through nine questions.

Questions 1 to 4 relate physical aspects to pain, while items 5-9 explore the psychosocial risk factors to form a psychosocial subscale. Patients are classified as “low-risk” for development of a future possible chronic low back pain if they respond positively to

less than four questions in the first section of the questionnaire. Those who respond positively to the first four questions can then be subdivided into a category of “medium risk” (with physical and psychosocial indicators of poor outcome to standard therapies for low back pain, but without high levels of psychological indicators) or “high risk” (high incidence of psychological prognostic indicators with or without physical indicators) based on the response to the subsequent five questions.

The STarT has been found to be effective in predicting functional outcomes and has also been found to be effective when applied in two large studies in UK settings (14).

It is noteworthy that this instrument has good psychometric ability and is shorter than other prognostic questionnaires used for this purpose such as the Orebro musculoskeletal Pain questionnaire. The SBST is a widely validated tool in many languages including French, Iranian, Finnish, Danish, Spanish, German, Persian, Brazilian and Chinese but there isn't an Italian version yet (15-23).

Italian researchers showed great interest in the validation of the questionnaire. We are inclined to declare, with a high degree of security, that until now no study in Italy has ever used the Start Back Screening tool.

Methods

Linguistic and intercultural adaptation took place in seven phases according to guidelines (23).

Phase 1: Contact with the SBTS authors. The original SBST developers in England were contacted which also validated the English version of the questionnaire. The goal was to inform them about the project and ask them for permission and possible collaboration.

Phase 2: Initial translations (English to Italian). Two blind translations were made from English into Italian. Both translators

were bilingual with Italian as their first language, and one of them possessed a medical background. Both translators wrote a report highlighting the uncertainties found and the logic for the specific linguistic choices that were made.

Phase 3: Synthesis. A summary of both initial translations into Italian was made and a subsequent combined version was created. The method involved comparing translations and annotating potentially ambiguous discrepancies. Appropriate formulation choices were identified and actions taken to address and solve problems.

Phase 4: Backward Translations. Two translators (blind to the original version of SBST) then independently translated the shared version from Italian into English. These translators had English as their first language and both did not have medical preparation. The goal of these backward translations was to verify that the version reflected the same content as the original questionnaire.

Phase 5: Review by a committee of experts. A committee of experts compared all the translations provided, with each other and with the original questionnaire. All the differences that emerged in the final translation were discussed. Linguistic reflections were made regarding the possible cultural differences that could be reflected in the semantics and an alternative formulation was suggested when necessary. This committee of experts included two methodologists, a health professional, and the four translators (round-trip translators) involved in the process. Telephone and e-mail contacts were also made with the developer of the SBST questionnaire. This phase led to a pre-final version of the Italian translation of the SBST questionnaire with a complete written report of the discrepancies found in each phase.

Phase 6: Test of the pre-final version. This pre-final version was subsequently tested on 30 patients with LBP. In addition to having filled out the questionnaire we asked

questions about the comprehensibility of the text, the difficulty in answering the questions and, thinking that some words could be interpreted incorrectly in Italian, we asked what they had intended.

Phase 7: Final version approved by the original Authors. The developer of the tool was contacted about the few difficulties in interpreting the pre-final version tested on patients. Through a semantic comparison, the final version of the Italian Translation and Cross-Cultural Adaptation of the Back Pain Screening Tool agreed upon.

Results

After receiving permission from the original authors of the Questionnaire (Hill J.) between November 2017 and December 2017, 27 patients with low LBP were randomly selected for the study. The SBST was distributed to patients of the Osteopathic Training Centre of the Italian Academy of Osteopathic Medicine AIMO, Saronno (Italy) and at private osteopathy practices in Milan. 66% were female, with a mean age of 48,5 years (range 22 to 75 years).

During phase 2, 3 and 4 (Initial Translations, Synthesis and Backward Translations) no significant discrepancies were noticed between translators.

During phase 5 some doubts emerged on how to translate the words “physically active” concerning the interpretation of physically active with respect to physical exercise. The Committee of Experts considered that no further transcultural adaptation was necessary.

During phase 6 (Test of Pre-final version) 8 patients expressed doubts regarding their understanding of or response to the questionnaire.

The most difficult questions to understand or answer were 5 and 6.

For question 5 the patients found it difficult to answer because the word “safe”

APPENDIX

A

The Keele STarT Back Screening Tool

Patient name: _____ Date: _____

Thinking about the last 2 weeks tick your response to the following questions:

	Disagree 0	Agree 1
1 My back pain has spread down my leg(s) at some time in the last 2 weeks	<input type="checkbox"/>	<input type="checkbox"/>
2 I have had pain in the shoulder or neck at some time in the last 2 weeks	<input type="checkbox"/>	<input type="checkbox"/>
3 I have only walked short distances because of my back pain	<input type="checkbox"/>	<input type="checkbox"/>
4 In the last 2 weeks, I have dressed more slowly than usual because of back pain	<input type="checkbox"/>	<input type="checkbox"/>
5 It's not really safe for a person with a condition like mine to be physically active	<input type="checkbox"/>	<input type="checkbox"/>
6 Worrying thoughts have been going through my mind a lot of the time	<input type="checkbox"/>	<input type="checkbox"/>
7 I feel that my back pain is terrible and it's never going to get any better	<input type="checkbox"/>	<input type="checkbox"/>
8 In general I have not enjoyed all the things I used to enjoy	<input type="checkbox"/>	<input type="checkbox"/>

9. Overall, how bothersome has your back pain been in the last 2 weeks?

Not at all	Slightly	Moderately	Very much	Extremely
<input type="checkbox"/>				
0	0	0	1	1

Total score (all 9): _____ Sub Score (Q5-9): _____

B

The Keele STarT Back Screening Tool - It

Nome del paziente: _____ Data: _____

Pensando alle ultime due settimane le chiediamo di barrare la sua risposta ai seguenti quesiti:

	In disaccordo 0	In accordo 1
1 Qualche volta il mio mal di schiena si è irradiato alla/e gamba/gambe nelle ultime due settimane.	<input type="checkbox"/>	<input type="checkbox"/>
2 Qualche volta ho avuto dolore alla/e spalla/e o al collo nelle ultime due settimane.	<input type="checkbox"/>	<input type="checkbox"/>
3 A causa del mio mal di schiena sono riuscito a camminare solo per brevi distanze.	<input type="checkbox"/>	<input type="checkbox"/>
4 A causa del mio mal di schiena mi sono vestito più lentamente nelle ultime due settimane.	<input type="checkbox"/>	<input type="checkbox"/>
5 Rimanere fisicamente attivo per una persona nelle mie condizioni potrebbe aggravare i sintomi.	<input type="checkbox"/>	<input type="checkbox"/>
6 Mi capita spesso di avere pensieri preoccupanti.	<input type="checkbox"/>	<input type="checkbox"/>
7 Credo che il mio mal di schiena sia terribile e non migliorerà mai.	<input type="checkbox"/>	<input type="checkbox"/>
8 Pensando al mio stato d'animo in generale, non mi piace più fare quello che mi dava piacere fare.	<input type="checkbox"/>	<input type="checkbox"/>

9. Nel complesso quanto fastidioso è stato il suo mal di schiena nelle ultime due settimane?

Per nulla	Leggermente	Moderatamente	Molto	Estremamente
<input type="checkbox"/>				
0	0	0	1	1

Punteggio totale (tutte le 9 domande): _____ Punteggio parziale (dalla 5 alla 9): _____

Figure 1 - The original English (A) and the translated Italian (B) version of the Start Back Screening Tool.

The STarT Back tool was part-funded by Arthritis Research UK. No license is required for non-commercial use. If you would like to incorporate the tool in any way into commercial product materials, please visit the STarT Back website for further information and contact the Keele team: www.keele.ac.uk/sbst.

translated “sicuro” seemed to create confusion about the meaning.

For question 6 the patients found it difficult to answer because they did not know how to interpret it. In general the word “worrying thoughts” are understood by patients in relation to the onset of serious illnesses or “not being able to see a solution” or referred to a possible aggravation of pain.

An agreement was reached with the questionnaire developer in phase 7 of the study. We proposed a variation to the question 5 with “staying physically active for a person in a condition like mine could aggravate the problem/symptoms”.

For question 6 after discussion with the expert committee and with the developer we decided to keep the semantic meaning of the original version “worrying thoughts” as “pensieri preoccupanti”.

Discussion

The SBST tool was designed to support the management of patients with low back pain in primary care in English-speaking areas. Hill et al. demonstrated the usefulness of the instrument in a physiotherapeutic context and its potential in terms of cost savings and better cost effectiveness (12).

Most of the interviewed participants indicated that all the elements of the questionnaire were clear and easy to understand. However, 8 subjects (29,6 %) have shown some uncertainties on items 5 and 6. After discussion within the expert committee and with the developer of the SBST it was decided to modify question 5 so that there were no doubts about the meaning of the word “safe”.

Regarding question 6, after realizing that the intent of the author was to detect possible states of anxiety, we considered the different interpretations that patients gave for the words “worrying thoughts” a non priority,

so we decided not to change the semantic translation.

The fact that in both the Danish translation and in the original English study comparable problems occurred, supports the assumption that the translation was sufficient and the reason for the uncertainty of the patients may be an issue inherent with the original item used (23).

Figure 1 in the appendix provides the original English version and the Italian translated final version of the SBST.

Conclusion

The translation of the SBST questionnaire has proven to be linguistically accurate and acceptable for use by Italian-speaking patients. This Italian version of SBST is easy to understand. It will be necessary to conduct a subsequent study to evaluate the psychometric properties with a larger and representative sample and when fully validated it will be of potential interest to the Italian medical and scientific community.

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Riassunto

Traduzione e adattamento cross-culturale in italiano del questionario Start Back Screening Tool per il dolore lombare

Introduzione. La lombalgia è una condizione eterogenea da cui la maggior parte dei pazienti guarisce dopo pochi mesi. Tuttavia, una percentuale considerevole di pazienti successivamente sviluppa dolore cronico nonostante diversi tipi di trattamento. Le linee guida basate sull'evidenza delle cure primarie per il mal di schiena non specifico evidenziano l'importanza di identificare degli indicatori prognostici affinché il trattamento sia mirato in modo appropriato. Lo Start Back Screening

Tool (SBST) è uno strumento prognostico sviluppato e convalidato per identificare sottogruppi di pazienti lombalgici e guidare il processo decisionale nella cura primaria iniziale del mal di schiena acuto.

Obiettivi. Lo scopo di questo progetto è la traduzione e l'adattamento interculturale di una versione dello SBST italiana. Lo sviluppo di un questionario affidabile e validato potrebbe essere utile per diversi professionisti della salute nella gestione della lombalgia.

Metodi. La traduzione e la validazione di questo strumento sono state suddivise in diverse fasi seguendo le linee guida per la traduzione dei questionari: contatto con gli sviluppatori SBST, traduzione dall'inglese all'italiano, sintesi, ritraduzione dall'italiano all'inglese, revisione di un comitato di esperti, test della versione pre-finale su 30 individui con lombalgia con la versione finale che è stata approvata dagli Autori originali.

Risultati. Per la traduzione linguistica è stato necessario fare alcune variazioni semantiche. I partecipanti intervistati hanno riportato una buona comprensione generale delle domande. Tuttavia, 6 soggetti (14%) si sono chiesti se due domande riguardavano il mal di schiena o la salute generale. Dopo una discussione all'interno del comitato di esperti e con lo sviluppatore dello SBST, la formulazione è stata modificata per aggiungere un riferimento al mal di schiena in queste due domande.

La versione italiana di STST è ora pronta per la sua validazione.

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