Reumatología Clínica

Original Article

Adaptation and Validation of the Spanish Version of the Graded Chronic Pain Scale☆

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A R T I C L E   I N F O

A B S T R A C T

Objective: To adapt the Graded Chronic Pain Scale for use in primary care patients in Spain, and to assess its psychometric properties.

Methods: Clinical measures observational study investigating the *severity of chronic pain*. The methodology included a process of translation and back-translation following the international guidelines. Study participants were 75 patients who experienced lower back pain for more than six months and were sent to primary care physiotherapy units. Internal consistency, construct validity, test–retest reliability, floor and ceiling effects, and answering capacity were analyzed.

Results: The Spanish version of the Graded Chronic Pain Scale had a high internal consistency, with a Cronbach's α of 0.87 and intraclass correlation coefficient of 0.81. Regarding construct validity, it was identified that two factors explained 72.37% of the variance. Convergent validity showed a moderate positive correlation with the Visual Analog Scale, the activity avoidance subscale of the Tampa Scale of Kinesophobia, the Pain Catastrophizing Scale, the Roland-Morris Low Back Pain and Disability Questionnaire, and the Fear Avoidance Beliefs Questionnaire. A moderate negative correlation was identified with the Chronic Pain Self-Efficacy Scale. The mean time of questionnaire administration was 2 min and 28 s.

Conclusions: The Spanish version of the Graded Chronic Pain Scale appears to be a valid, reliable, and useful tool for measuring chronic pain at an early stage in primary care settings in Spain.

Adaptación y validación de la Escala de gradación del dolor crónico al español

R E S U M E N

Objetivo: Adaptar la Escala de gradación del dolor crónico en pacientes de Atención Primaria en España y evaluar sus propiedades psicométricas.

Métodos: Estudio observacional de medición clínica de una escala de *magnitud del dolor crónico*. Se realizó un proceso de traducción-retrotraducción siguiendo las guías internacionales. Setenta y cinco sujetos con dolor lumbar de más de 6 meses de evolución derivados a las unidades de fisioterapia en Atención Primaria participaron en el estudio. Se analizaron: la consistencia interna, la validez del constructo, la fiabilidad test–retest, los efectos techo y suelo, y la capacidad de respuesta.

Resultados: La Escala de gradación del dolor crónico posee una alta consistencia interna, el α de Cronbach fue de 0,87, similar al que presentan las versiones en otros idiomas, y el coeficiente de correlación intraclase fue 0,81. En cuanto a la validez del constructo, se extrajeron 2 factores que consiguieron explicar el 72,37% de la varianza. La validez convergente muestra una correlación positiva moderada con la escala visual analógica, la subescala de evitación de actividad de la Escala Tampa de kinesiofobia, la Escala del catastrofismo para el dolor, el Cuestionario de discapacidad por dolor lumbar de Roland-Morris, y el Cuestionario de conductas de miedo-evitación, y una correlación negativa moderada con el Cuestionario de autoeficacia en el dolor crónico. El tiempo medio de administración fue de 2 min y 28 s.

Conclusiones: La versión española de la Escala de gradación del dolor crónico parece ser un instrumento válido, fiable y útil para medir de forma precoz el dolor crónico en la práctica clínica en Atención Primaria en España.

Introduction

Chronic pain is classically defined as an unpleasant experience that persists for over 6 months.[1] This definition, based on the transient nature of that experience, overlooks key components that accompany patients with chronic pain, such as disability and the resulting reduction of physical activity,[2] which generate an increase in absenteeism from work, a significant loss of quality of life and a great socioeconomic impact.[3]

According to the International Classification of Functioning, Disability and Health, disability is a multifactorial phenomenon in which physical, mental and emotional functions alternate, and which is present in chronic pain.[4,5] Chronic pain affects 17.25% of the adult population in Spain,[6] and some authors have reported its prevalence to be around 23.4%.[7]

The early detection and management of pain proves to be especially important to mitigate its effects on the patients and health systems of the European countries.[3] At the present time, what we need in Spain are tools that are dynamic and simple enough to allow their immediate use, enabling the rapid diagnosis and subclassification of patients with chronic nononcological pain, since the management of patients of this type continues to need improvement.[8]

The Chronic Pain Grade Questionnaire is a self-report instrument composed of 7 items that are scored on an 11-point Likert scale, with a total range of 0–70 points. It was originally designed in English for the evaluation of the intensity of chronic pain,[9] and has been validated for and translated to several languages.[10–12] Two of these versions were generated in the primary care setting.[11,12] The version updated in 2010 converted the initial questionnaire into a scale of 8 items, the Graded Chronic Pain Scale 2.0 (GCPS).[13]

The objective of this investigation is to produce a cross-cultural Spanish-language adaptation of the GCPS in a sample of patients who were being treated for chronic low back pain in Spanish primary care services. As a secondary endpoint, we plan to carry out an initial psychometric analysis of the efficacy of the tool in this sample population.

Methods

From September 2013 to July 2014, we conducted a prospective observational study for the psychometric validation and cross-cultural adaptation of the GCPS. The study was carried out in 2 phases: (a) the application of a structured protocol for cross-cultural adaptation to determine the linguistic validity of the scale, and (b) the verification of the psychometric properties of the scale, which are described below in the section on Data Analysis.

All the research procedures used in this study were established in accordance with the declaration of Helsinki and had been approved by the bioethics committee of Hospital Universitario La Paz in Madrid and by the research commission of the Health Care
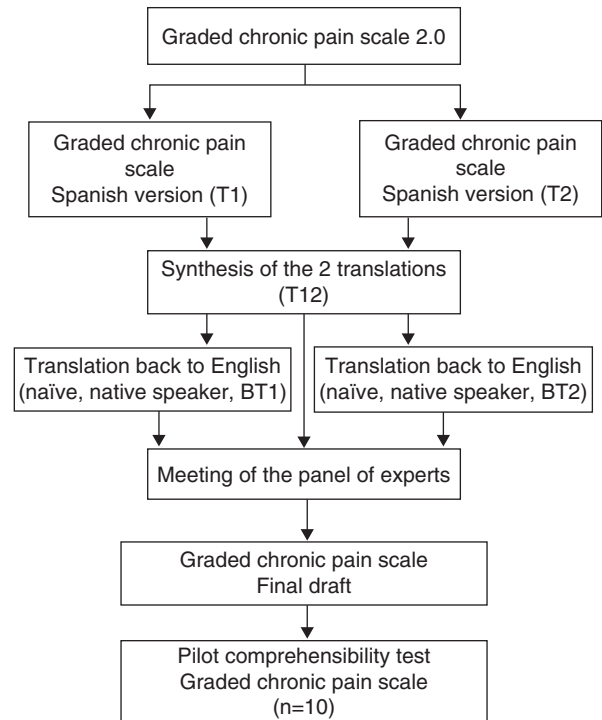

Fig. 1. Algorithm showing the process of translation and cross-cultural adaptation of the Graded Chronic Pain Scale 2.0 to the version in Spanish. BT, back-translation; T translation.

Administration (Southwest) for Primary Care in the Autonomous Community of Madrid.

Translation and Cross-cultural Adaptation

Cross-cultural adaptation of the GCPS involved the use of the 5-phase structured protocol proposed by Beaton et al.[14] (Fig. 1). The initial phases of the translation were carried out by 2 linguistics experts and 2 native English speakers with full proficiency in Spanish. The final draft was subjected to an evaluation of the content validity before a panel of 6 expert judges, which included specialists in psychometry, linguistics and chronic pain. The criteria for the selection of the experts were as follows[15]: (a) experience in issuing rulings and evidence-based decision-making (research, publications and experience); (b) availability and motivation to participate; and (c) impartiality and flexibility. The members of the panel of expert judges were asked to provide a qualitative assessment of each of the items (degree of comprehensibility, suitability of the wording and phrasing), as well as a quantitative evaluation of the items, taking into account the following points: (1)