



Original Article

Translation and validation of the new version of the Knee Society Score – The 2011 KS Score – into Brazilian Portuguese[☆]

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ABSTRACT

Objective: Translation, cultural adaptation, and validation of the new version of the Knee Society Score – The 2011 KS Score – into Brazilian Portuguese and verification of its measurement properties, reproducibility, and validity. In 2012, the new version of the Knee Society Score was developed and validated. This scale comprises four separate subscales: (a) objective knee score (seven items: 100 points); (b) patient satisfaction score (five items: 40 points); (c) patient expectations score (three items: 15 points); and (d) functional activity score (19 items: 100 points).

Method: A total of 90 patients aged 55–85 years were evaluated in a clinical cross-sectional study. The pre-operative translated version was applied to patients with TKA referral, and the post-operative translated version was applied to patients who underwent TKA. Each patient answered the same questionnaire twice and was evaluated by two experts in orthopedic knee surgery. Evaluations were performed pre-operatively and three, six, or 12 months post-operatively. The reliability of the questionnaire was evaluated using the intraclass correlation coefficient (ICC) between the two applications. Internal consistency was evaluated using Cronbach's alpha.

Results: The ICC found no difference between the means of the pre-operative, three-month, and six-month post-operative evaluations between sub-scale items.

Conclusion: The Brazilian Portuguese version of The 2011 KS Score is a valid and reliable instrument for objective and subjective evaluation of the functionality of Brazilian patients who undergo TKA and revision TKA.

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[☆] Study conducted at Universidade de São Paulo, Faculdade de Medicina, Hospital das Clínicas, Instituto de Ortopedia e Traumatologia, São Paulo, SP, Brazil.

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Tradução e validação da nova versão da escala Knee Society Score – The 2011 KS Score – para a língua portuguesa

R E S U M O

Palavras-chave:

Joelho

Artroplastia do joelho

Escala

Tradução

Questionários

Objetivo: Traduzir, adaptar culturalmente e validar a nova versão da escala Knee Society Score – The 2011 KS Score – para a língua portuguesa e verificar suas propriedades de medida, reprodutibilidade e validade. Em 2012, a nova versão do Knee Society Score foi desenvolvida e validada, com quatro subescalas: a) avaliação objetiva do joelho (sete itens: 100 pontos); b) satisfação do paciente (cinco itens: 40 pontos); c) expectativa do paciente (três itens: 15 pontos); e d) atividade funcional (19 itens: 100 pontos).

Método: Foram avaliados 90 pacientes entre 55 e 85 anos em estudo clínico transversal. A versão traduzida pré-operatória foi aplicada em pacientes com indicação de ATJ e a versão traduzida pós-operatória foi aplicada em pacientes submetidos a ATJ. Cada paciente respondeu o mesmo questionário duas vezes, foram avaliados por dois ortopedistas especialistas em cirurgia do joelho. Foram feitas avaliações pré-operatórias com três, seis ou 12 meses de pós-operatório. A confiabilidade do questionário foi avaliada através do coeficiente de correlação intraclassa (CCI) entre as duas aplicações. A consistência interna foi avaliada através do alfa de Cronbach.

Resultados: O índice do coeficiente de correlação intraclassa não detectou diferença entre as médias das avaliações no pré-operatório, com três meses e seis meses de pós-operatório entre os subitens da escala.

Conclusão: A versão brasileira do The 2011 KS Score mostrou-se um instrumento válido e confiável para avaliação objetiva e subjetiva da função de pacientes brasileiros submetidos a ATJ e revisão de ATJ.

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Introduction

In evidence-based medicine, it is necessary to use standardized and validated scales to assess treatment results. Specific scales have been designed for individuals with knee injuries, allowing a reproducible standardized assessment.¹

The use of questionnaires as an assessment parameter is useful, since it allows the standardization and reproducibility of the proposed measurements.² The choice of an evaluation tool should prioritize the following aspects: clear components that allow simple application, ease of understanding, and proper application time.³ When a questionnaire is prepared, its properties need to be tested and validated in a group of patients so that they can subsequently be used in population groups.⁴

The standardization of translation and cultural adaptation methods allowed an instrument developed for use in one language and culture to also be used in another language and cultural context, with adequate correspondence and reliability.^{5,6}

Knee osteoarthritis is a common pathology; in its later stages, it can be surgically treated with total knee arthroplasty (TKA).^{7,8} Due to the high prevalence of joint replacement procedures, various evaluation systems have been developed to quantify the results of such surgeries.⁷

The Knee Society Score combines subjective and objective information and separates the knee score (pain, stability, range of motion) from the patient's functional score (ability to walk and climb up and down stairs).⁹

Recently, Scuderi et al.¹⁰ developed and validated a new version of the Knee Society Score, consisting of four separate subscales: (A) objective knee score (seven items: 100 points); (B) patient satisfaction score (five items: 40 points); (C) patient expectation score (three items: 15 points), and (D) functional activity score (19 items: 100 points).

This study aimed to translate, culturally adapt, and validate the new version of the Knee Society Score (2011 KS Score) into Brazilian Portuguese and assess its measurement, reproduction, and validity properties, so it can be used as a specific instrument for postoperative assessment of TKA.

Patients and methods

The study was approved by the Research Ethics Committee of this institution; all patients received and signed an informed consent form.

In a cross-sectional study, 90 patients (68 women and 22 men) aged 55–85 years old (mean of 64.65) were assessed, followed by the Knee Surgery Group with an indication for TKA or who had undergone TKA.

The inclusion criteria were: (a) age between 55 and 85 years; (b) both genders; (c) indication for TKA or revision TKA; and (d) had undergone TKA or revision TKA.

The exclusion criteria were: (a) individuals who refused to answer the questionnaire; (b) neurological disorder that led to cognitive alterations; and (c) muscle, nerve, and/or fracture injuries in the lower limbs.

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