

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.elsevier.com/locate/burns

Cultural adaptation and validation of Patient and Observer Scar Assessment Scale for Turkish use

Mine Seyyah^{a,*}, Saadet Ufuk Yurdalan^b

^a University of Health Sciences Kartal Dr. Lutfi Kırdar Education and Research Hospital, Burn and Wound Treatment Department, Cevizli District, Şemsi Denizler Street, E-5 Karayolu Cevizli Mevkii, 34890 Kartal, Istanbul, Turkey

^b Marmara University, Faculty of Health Sciences, Physiotherapy and Rehabilitation Department, Başibüyük District, Maltepe Başibüyük Yolu Street, 9/4/1 Maltepe, Istanbul, Turkey

ARTICLE INFO

Article history:

Accepted 22 February 2018

Available online xxx

Keywords:

Patient and Observer Scar Assessment Scale

Hypertrophic scar

Physiotherapy

Validity

Reliability

ABSTRACT

Background: This study aimed to evaluate cross-cultural adaptation, validation, and reliability of Patient and Observer Scar Assessment Scale (POSAS) for its Turkish use.

Method: This study included 50 burn patients with hypertrophic scars who were aged 18–65 years (mean, 37.5 ± 1.4 years) and were admitted to Wound and Burn Treatment Center from February 2014 to April 2014. With regard to the cultural adaptation of POSAS from English to Turkish, the scale was translated by two people who worked in different health fields. POSAS was administered to the patients with a 1-week interval to evaluate the validity and reliability of the scale. Internal consistency of the scale was tested using the Cronbach alpha method. **Results:** The Cronbach alpha value for the observer measurements was found to be 0.93 (excellent), and that for patient measurements was found to be 0.77 (good). Accordingly, the internal consistency of the scale was established.

Conclusion: The Turkish version of POSAS is a valid, reliable and culturally appropriate survey for evaluating hypertrophic scars. We believe that the Turkish version of POSAS will be an important clinical/scientific tool in the field of burn physiotherapy in Turkey, which will lead to new researches in this field.

© 2018 Elsevier Ltd and ISBI. All rights reserved.

1. Introduction

Clinical evaluation is an important phase of general patient follow-up. Besides physical examination and other complementary imaging modalities, scales that patients themselves interpret are becoming increasingly popular [1,2]. In addition to assessing treatment efficacy, these scales are beneficial to clinicians because they provide data that can help in treatment planning on the basis of the degree of impairment of the patient's functioning [3]. Cultural adaptation of scales is an important issue. If a scale is to be used by people in a different

part of the world, it should be translated to their local language, culturally adapted, and proven valid [4].

There are no scales for evaluating burn scars in Turkey. The first verified and a widely used scoring scale was the Vancouver Score Scale (VSS) [5]. The first burn scar evaluation scale based on physical parameters was developed by Sullivan et al. in 1990 to provide an objective assessment of burn scars. The researchers recognized the need for a reliable, objective, and universal scar evaluation method to compare treatment outcomes and burn scarring. VSS independently evaluates the pigmentation, vascularity, flexibility (pliability), and scar height (thickness). Pigmentation is scored as normal, hypopigmented,

* Corresponding author.

E-mail address: mine-fzt@hotmail.com (M. Seyyah).

<https://doi.org/10.1016/j.burns.2018.02.026>

0305-4179/© 2018 Elsevier Ltd and ISBI. All rights reserved.

hyperpigmented and vascularity is scored as normal, pink, red, and purple. Constraints on VSS: pigmentation and vascularity, and the distinction between contraction and pliability. VSS has some deficiencies which are lacks patient perception, pigmentation subscale less applicable to large, heterogeneous scars, operator-dependent errors, excludes pain and pruritus [6]. The VSS is focused on the severity of the wound from a health professional's point of view, but it is also known that the inclusion of a patient-based assessment is also essential. Several scoring scales were developed in the later years. Symptomatic evaluation of the scar was suggested, however, the patient's opinion of scar appearance was not considered in previous scales [7-9].

Finally, in 2004, a reliable and feasible scale, known as the Patient and Observer Scar Assessment Scale (POSAS), was developed to subjectively assess scar formation [7,8]. Previous limitations were recognized in the development of the Patient and Observer Scar Assessment Scale (POSAS), which consisted of two multi-item numerical rating scales, an observer scale, and a patient scale [9].

Compared with VSS, POSAS has been found to be a more consistent and reliable assessment of burn scarring [10]. However, some scales other than POSAS cannot be implemented in terms of time management and profession in clinics where the single healthcare worker follows the patient. Thus, POSAS has been developed as a system that can be divided into two scales, patient and observation scale, and can be easily used in the clinical setting. Another strength of POSAS is that compared with other evaluation scales, it emphasizes on the opinions of the patients. The patient scale version 2.0 English (<http://www.POSAS.org>) consists of seven questions, six of which ask the patient to rate specific characteristics of their scar (pain, itch, color, stiffness, thickness, and regularity) and the seventh question rates the overall opinion of the scar site. The observer scale included six parameters, namely vascularity, pigmentation, thickness, relief, pliability and surface area [10-12]. Both the scales are scored using a 10-point system. One point represents "normal skin," whereas 10 points represent "the worst scar imaginable" [12,13]. The scores from each parameter are added, and higher the score, worse the scar quality. In 2005, Van de Kar et al. added the scar surface area (expansion, contraction, and mix) to the observer scale for a more detailed evaluation [12].

Despite the widespread use of POSAS worldwide, no tool has been used in Turkey for scar evaluation, and clinical evaluations in burn units are performed by photo follow-ups and observation. Hence, we aimed to create a guide for burn evaluation and treatment, which met international standards and to introduce POSAS in the field of burn physiotherapy by conducting its Turkish validity and reliability study. In this context, we are at the forefront of our research.

2. Material and methods

2.1. Participants

This study included 50 burn patients with hypertrophic scars who were aged 18-65 years (mean age, 37.5 ± 1.4 years) and who

were admitted to University of Health Sciences Kartal Dr. Lutfi Kırdar Education and Research Hospital-Wound and Burn Treatment Center from February 2014 to April 2014.

The study was permitted by the clinical practitioner of the Burn and Wound Center, where the study was conducted and was approved by the ethics committee of University of Health Sciences Kartal Dr. Lutfi Kırdar Education and Research Hospital Scientific Research Evaluation Board on May 20, 2014 (Number: 514/43/4). The informed consent form, which described the purpose and content of the study in detail, was explained and provided to each participant, who signed the voluntary consent form and agreed to participate in the study.

Inclusion criteria

- Patients admitted at University Of Health Sciences Kartal Dr. Lutfi Kırdar Education and Research Hospital-Wound and Burn Treatment Center for treatment and in whom wound healing was completed.
- Those aged 18-65 years.
- Those with sufficient cognitive competence to understand the scale and know how to read and write.
- Those who voluntarily participated in the study.

Exclusion criteria

- Patients with acute burns who were admitted to University of Health Sciences Kartal Dr. Lutfi Kırdar Education and Research Hospital-Wound and Burn Treatment Center.
- Those aged <18 years.

2.2. Method

For cultural adaptation of the English version of POSAS for its Turkish use, POSAS was translated from English to Turkish by two people working in different health fields. A single Turkish translation was created from these translations. The resultant Turkish questionnaire was translated into English by two people who spoke Turkish very well and was then compared with the original English version. After this, the questionnaire was tested among 20 pilot patients, it was checked whether the questionnaire had unexplained questions, the use was deemed ready for the next phase of the study. A week after the initial evaluations among pilot patients, the questionnaire was tested again to measure its retest reliability.

We evaluated the reliability (internal consistency and test and retest reliability) and validity (superficial and content related) of POSAS. Reliability is defined as obtaining the same result when the scale or questionnaire is tested with dependent groups at two different time points [14,15].

2.3. Statistical analysis

The SPSS version 11.5 was used to analyze the data of the study. At 95% confidence interval of the statistical program, p-value of <0.05 was considered significant. The one-sample Kolmogorov-Smirnov test and histogram scoring were used to determine the normal distribution suitability of the data. While test-retest and internal consistency analysis were used for reliability, exploratory factor analysis (EFA) was used for validity [16].

Download English Version:

<https://daneshyari.com/en/article/8694584>

Download Persian Version:

<https://daneshyari.com/article/8694584>

[Daneshyari.com](https://daneshyari.com)