

Translation, adaptation and validation of a Norwegian version of the burn-specific quality of life questionnaire "*The Abbreviated Burn-Specific Health Scale*"

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Abstract

The Burn-Specific Health Scale (BSHS) is at present the only disease-specific quality of life instrument for use in the burn patient population. The questionnaire has been translated into several other languages, and revised and shortened versions are available. The BSHS has proven useful in measuring physical, mental, social and general health in burn survivors.

The aim of this study was to translate and adapt *The Abbreviated Burn-Specific Health Scale (BSHS-A)* into Norwegian, including assessing reliability and validity. This was conducted as part of a larger survey assessing quality of life in survivors of major burns.

The translation procedure included a forward and backward translation performed by professional translators. The translated version was then evaluated by a multidisciplinary group of professionals working in The Burn Center, Haukeland University Hospital and a group of burn patients. Minor adaptations and changes were performed at this stage to ensure conceptual equivalence. Finally, a pilot study including 11 burn patients confirmed that the final version, named *Norwegian version of The Burn-Specific Health Scale (BSHS-N)*, was clear, comprehensive, understandable and easy to self-administer.

To test reliability and validity, the BSHS-N and the general health measure SF-36 were sent to 143 adults (mean age 44.3 years; females 18.9%) admitted to The Burn Center, Haukeland University Hospital between 1995 and 2000. Ninety-five patients (66.4%) entered the validation study. In addition, 69 of the 95 responders (72.6%) completed a retest. The overall internal consistency reliability (Cronbach's $\alpha=0.97$) and the test-retest reliability (ICC=0.95) were satisfactory. Validity tests showed expected patterns for associations between comparable domains in the BSHS-N and the SF-36 (criterion validity), with correlation coefficients ranging from 0.61 to 0.81. Furthermore, the BSHS-N discriminated significantly between groups of patients (construct validity), i.e. between those with or without full thickness injury ($p=0.003$), those hospitalized more or less than 10 days, and those having more or less than two operations ($p=0.001$).

In conclusion, the BSHS-N seems to be a clear, comprehensive, reliable and valid instrument for use in the Norwegian population of burn patients.

Key words: Burns, quality of life, questionnaire, cross-cultural adaptation, reliability, validity.