

STANDARDIZING DEN BOER'S CRITERIA

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Introduction

The outcome of spinal surgery and other invasive treatments for pain is influenced by a number of psychosocial variables. den Boer and colleagues developed an evidence-based method of presurgical psychological evaluation, employing a systematic review of the literature to identify variables empirically determined to be most predictive of a poor response to spinal surgery: depression, anxiety, somatization, pain complaints, dependency, job dissatisfaction, length of time in treatment, and education level. However, den Boer made no suggestions with regard to psychometrically standardizing this method for clinical use.

Objectives

The purpose of this study was to develop a psychometrically standardized method of calculating den Boer's criteria for presurgical risk using the Battery For Health Improvement 2 (BHI-2) norms.

Methods

The BHI-2 profiles, demographic and other information was gathered from 527 patients in multidisciplinary treatment for pain or injury. Additionally, 725 community members were assessed as a control. Using these data, a standardized method was developed to calculate den Boer's criteria for presurgical risk. The dependent variable was a risk level score, calculated by employing a cutoff for each variable or BHI 2 scale that was one standard deviation above the mean of a national sample of 527 patients.

Results

This method produced a risk score ranging from 0 to 9. The mean, standard deviation, median and mode of the den Boer scores were as follows for patients: 1.66, 1.98, 1.0, 0.0. In contrast, the community mean, standard deviation, median and mode were as follows: 0.92, 1.44, 0.0, 0.0.

Method for Calculating Den Boer Criteria

Criteria	BHI 2 Sign
Depression	Depression T > 59
Anxiety	Anxiety T > 59
Somatization	Somatic Complaints T > 59
Pain	Pain Complaints T > 59
Function	Functional Complaints T > 59
Passive Coping	Symptom Dependency T > 59
Job Dissatisfaction	Job Dissatisfaction T > 59
Time Off Of Work	Days Off Of Work > 1006
Education	Education < High School

Conclusions

Standardization is an important part of the clinical assessment of patients. A limitation of this study is that these means and norms would not apply to other methods of assessing den Boer's criteria.

References

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2. Bruns D, Disorbio JM. *Battery for Health Improvement 2 Manual.* Minneapolis: Pearson; 2003.

