

Chapter 9

FUNCTIONAL OUTCOME MEASURES IN SHOULDER INSTABILITY

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INTRODUCTION

The shoulder (glenohumeral) joint has the widest range of motion in the human body. Glenohumeral stability depends on the combination of various factors such as static and dynamic stabilizers and sensory factors. Shoulder instability can be due to injury and/or failure of the static or dynamic stabilizers ⁽¹⁾. Joint laxity, instability, subluxation, and dislocation are concepts associated with shoulder instability. Shoulder instability occurs in the anterior (more frequent), posterior and inferior directions or multiple directions ^(1,2). Patients often experience dysfunction in their daily life or during sporting activities. A standardized measurement approach has not yet been developed to determine the loss of function. The approach used in the measurement is expected to be reliable, valid and sensitive to change in clinical or research settings. Subjective tests and measurements are being used increasingly in the clinics. The appropriate use and the interpretation of these tests and measurements impose responsibility on the health professionals performing the tests. What is accepted nowadays is the use of the clinical tests or assessments with the patient-based measurements that provide data about the patient's health status. Therefore, rehabilitation specialists need to know the principles of objective or subjective measurement methods to use these tools. Subjective assessment methods that provide information about pain severity, function, disability status and quality of life according to the patient's declaration are frequently used. However, if there is no information about the validity and reliability of these methods or if the values are not in the accepted significance limits, care

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Uses of the Questionnaire

The Rowe score was used in different groups of patients, including shoulder instability⁽⁴³⁻⁴⁶⁾, Slap lesions⁽⁴⁸⁾, and stabilization surgeries⁽⁴⁹⁾.

Psychometric Characteristics of the Questionnaire

Apart from the original English version of the questionnaire, only the Portuguese⁽⁵⁰⁾ language version exists. The study showed that Cronbach's α values ranged from 0.81 to 0.88⁽⁴⁸⁾. The test-retest value of the questionnaire was found to be $0.70 < (ICC)$ ⁽⁴⁸⁾.

As a result of the studies conducted to determine the validity of the questionnaire, it was determined that the total scores of the Rowe score had no floor-ceiling effect⁽⁴⁸⁾. Unfortunately, no studies are examining the factorial structure of the questionnaire concerning criterion validity. In the only study that examined the structure validity of the questionnaire, the Rowe score indicated that the convergent validity ranged from 0.12 to 0.63⁽⁴⁸⁾.

Current studies have shown that the minimal clinical significance value for the Rowe score is in the range of 5.6 to 9.7^(51,52).

Interpretation of the Questionnaire

In general, the questionnaire used in shoulder instability appears to lag behind the age. The scale had very few language adaptations preventing full examination of its psychometric properties. According to the results of the study examining the convergent validity of the Rowe score⁽⁴⁸⁾, it should be kept in mind that the validity value of the scale is very variable.

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