Disability Measurement in Low Back Pain Using Roland-Morris Questionnaire

Abstract

Background: Self-reported questionnaires have become very popular measures in assessing disability in patients with low back pain (LBP). One of the internationally used self-reported instruments is the Roland-Morris Questionnaire (RMQ) which demonstrates good psychometric properties.

Objectives: This study is designed to evaluate a face to face interview Arabic version of original RMQ and compare it with Arabic version of a modified RMQ.

Study Design: Clinical case-series collection (descriptive-analytic study).

Setting: Rheumatology outpatient clinic – Ibn Seena Teaching Hospital. Mosul/Iraq

Methodology: A 72 patients, 30 males and 42 females with main age (37.23± 9.14) years, were participated in this study. Their mean BMI was (29.3±4.46). Basic information recording, detailed history, completed rheumatologi as well as related neurological examination were performed for every patient. Those who suspected to have specific (systemic or local) underlying pathology for his/her disability were excluded automatically from the study list.

Following the physical examination, the process of answering the twenty four questions of the Roland-Morris Questionnaire (RMQ) was started by direct conversational methods instead. In this method the questions of RMQ were answered through a direct investigator-patient Arabic conversation. This was compared with a modified RMQ whose answers are graded on a visual analogue scale (RMQV) instead of the usual dichotomous responses. The disability measured by the RMQ were subdivided into: mild (0-8), moderate (9-16) and severe (17-24).

The methodology applied here was explained to every patient who participated in the study and his/her consent was taken in consideration.

Result: The results showed that the Arabic conversational RMQ have a good reliability and RMQV have an excellent reliability (Cronbach’s alpha values = 0.72 and 0.94 respectively). There was a significant direct correlation between these two questionnaires (r = 0.861; p-value < 0.001). Yet, we found a significant difference between them (p-value <0.01 using independent samples t-test). The scores of the RMQ and RMQV correlate moderately with a score of the predictive features (r = 0.50; p-value < 0.01and 0.530; p-value < 0.01 respectively). There were weak correlations between these two questionnaires and the performance testing.

Conclusion: The study found that the modified version of the RMQ (RMQV) has greater reliability than the original one. In addition the RMQV showed better correlation with the narrow angle straight leg raising test. No significant differences between them regarding other parameters.