

# **CROSS-CULTURAL ADAPTATION AND PSYCHOMETRIC ANALYSIS OF THE ROLAND-MORRIS DISABILITY QUESTIONNAIRE AND OSWESTRY DISABILITY INDEX QUESTIONNAIRES IN PATIENTS WITH NON-SPECIFIC LOW BACK PAIN**

**by Novita Intan Arovah, Rina Yuniana**

## **ABSTRACT**

Epidemiological data indicate that low back pain (LBP) is the most common musculoskeletal disorder. The most prevalent type of LBP is non-specific in nature. Thus far, the diagnosis of LBP has been established using patient-reported outcome measures (PROM). This study aims to culturally adapt and perform psychometric analysis on the Roland-Morris Disability Questionnaire (RMDQ) and Oswestry Disability Index (ODI) in their Indonesian versions for individuals experiencing non-specific low back pain. This observational cross-sectional study involved participants aged 18-65 who had experienced non-specific low back pain for a minimum of 3 months and were able to read and write in Bahasa Indonesia. Participants with a history of spinal surgery, structural spinal abnormalities, or neurological disorders that could affect their ability to complete the questionnaires were excluded from the study. The data were analyzed using reliability and construct validity tests, including Cronbach's alpha, factor analysis, convergent validity, and discriminant validity. The results revealed that both instruments (RMDQ and ODI) had very high readability rates (98%), based on data from 10 elderly respondents. Content validity testing indicated that the language in both instruments closely matched their original versions, with content validity rates ranging from 80-100%, averaging 96% for ODI and 97.5% for RMDQ. Instrument reliability was also found to be high, with Cronbach's alpha values of 0.82 and 0.80 for ODI and RMDQ, respectively. The correlation between ODI and RMDQ with other measurement tools, such as the Numeric Rating Scale (NRS) and the Quality of Life Questionnaire (SF-12), was also strong. Construct validity was further supported by statistically significant results. This study successfully adapted and validated the instruments for use in the context of non-specific low back pain in Indonesia. The findings indicate that both questionnaires have high readability, high content validity, good reliability, and consistency with other commonly used tools for assessing low back pain.

Kata Kunci: *validity, reliability, translation*