

Disability Measurement in Radiculopathy: Scoping Review of Clinically Quantifiable Measurement Tools

SAPNA DWIVEDI¹, PANKAJ KUMAR MALIK²

ABSTRACT

Introduction: Radiculopathy is a common neuro-musculoskeletal condition characterised by multi-dimensional physical and functional limitations resulting from nerve-root compression or irritation that negatively affect quality of life and daily activities. Accurate assessments for the disability associated with radiculopathy are essential to diagnose, plan, treat, monitor and evaluate therapeutic outcomes.

Aim: To identify the objective outcome measures/tools related to the assessment of disability in patients with radiculopathy.

Materials and Methods: A scoping literature review was conducted across major databases, including PubMed, Scopus, Web of Science and CINAHL, to identify reliable and valid tools to assess the disability resulting from lumbar and cervical radiculopathy. Both patient-reported outcome measures and clinician-administered assessment tools were searched.

Results: The review demonstrated that many nonspecific disability measurement tools were in use in the existing literature. Generic measurement instruments like the Oswestry Disability Index, Neck Disability Index, Visual Analogue Scale, Numeric Pain Rating Scale, Roland-Morris Disability Questionnaire, and SF-36 have been used in many studies. Disease-specific instruments provide more accurate and clinically meaningful assessment compared with

generalised low back pain measures like the Istanbul Low Back Pain Disability Index (ILBPDI), which showed excellent reliability and validity; Turkish versions of the Sciatica Bothersomeness Index (SBI) and Sciatica Frequency Index (SFI) were found to be reliable and culturally adaptable tools for assessing sciatica symptoms. The modified Roland-Morris Disability Scale (RMS-L) demonstrated improved sensitivity in evaluating disability related to leg pain and sciatica. Additionally, the Cervical Radiculopathy Impact Scale (CRIS) highlighted a systematic approach to scale development and psychometric evaluation.

Conclusion: The scoping review highlights the limitations in current measurement tools used in radiculopathy. None of the scales reviewed captured the multidimensional impact of radiculopathy, including physical, psychological, social and quality of life components, except CRIS. The findings suggest the need for the development of a standardised, multidimensional, and clinically feasible assessment tool to improve patient evaluation in the area. Such a tool would enhance clinical evaluation, treatment planning, outcome monitoring, and research applicability by providing a comprehensive assessment of both functional and psychosocial disability.

Keywords: Disability assessment, Functional disability, Lumbar radiculopathy, Psychometric validation, Rehabilitation outcome measures, Reliability and validity.

PARTICULARS OF CONTRIBUTORS:

1. MPT Student, Department of Physiotherapy, Amity Institute of Health Allied Sciences, Amity University, Noida, Uttar Pradesh, India.
2. Assistant Professor, Department of Physiotherapy, Amity Institute of Health Allied Sciences, Amity University, Noida, Uttar Pradesh, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Pankaj Kumar Malik,
Assistant Professor III, Department of Physiotherapy, Amity Institute of Health Allied Sciences, Amity University, Sector-125, Noida-201313, Uttar Pradesh, India.
Email: pkmalik@amity.edu; pankajkrmalik@gmail.com