

The psychometric properties of the German version of the revised Worker Role Interview (WRI-G 10.0)

Bianca Köller¹, Karin Niedermann², Andreas Klipstein², Jette Haugboelle³

¹Zurich University of Applied Sciences, School of Health Professions, Institute for Occupational Therapy, Winterthur, Switzerland, ²Dept Rheumatology and Institute of Physical Medicine, University Hospital, Zurich, Switzerland, ³University College Sjælland, Division of Occupational Therapy, Naestved, Denmark

Introduction: Occupational therapists play an important role in work rehabilitation in getting people with chronic disabilities back to work. Due to an increasing need for quality control and the call for evidence-based practice, the use of work assessments as outcome measurement have become mandatory in current health and social care contexts. The Worker Role Interview (WRI) aims to detect psychosocial and environmental factors influencing the ability to return to work for injured or disabled workers.

Objective: This study aimed to examine the construct validity of the revised and recently translated German version of the WRI (10.0), the WRI-G (10.0), and the interrater reliability in a population with work-related musculoskeletal disorders (MSD) in Switzerland.

Methods: Data was gathered from 20 participants with work-related MSD. The interviews were conducted face-to-face and videotaped. Five occupational therapists, trained in the use of the WRI-G, independently rated all 20 interview recordings following the official manual. Thus, 100 ratings were analysed by use of Rasch analysis to test construct validity and transform ordinal raw data into linear data for interrater-reliability calculations.

Results: All items fit the Rasch model, except the item 'perception of boss'. Four items displayed differential item functioning (DIF) for different groups, which was remedied by item split. The final WRI-G, consisting of 15 items, showed good overall model fit ($\chi^2=54.66$, $p=0.04$); excellent person-separation reliability (PSI 0.91) and high interrater reliability (mean ICC 0.90).

Conclusions: Based on this sample, the WRI-G (10.0) indicates to be a valid and reliable instrument for occupational therapists to assess psychosocial ability for return to work in a work-related MSD population.

Contribution to the practice/evidence base of occupational therapy: The implementation of the WRI-G facilitates practicing evidence-based and client-centred occupational therapy in using a psychometrically sound assessment tool, especially for work rehabilitation programmes and, in a broader context, for any return to work activities.