Development, Validation and Reliability of Work-related Low Back Pain Questionnaire for Nursing Professionals: A Questionnaire-based Study

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ABSTRACT

Introduction: Multiple risk factors induce Work-related Musculoskeletal Disorders (WMSDs), resulting in a higher prevalence of work-related low back pain among nurses.

Aim: The present study aimed to develop and establish the validity and reliability of Work-related Low Back Pain Questionnaires (WRLBPQ) for nursing professionals.

Materials and Methods: This study employed a methodology centered on the development, reliability, and validation of a scale. Five experts with a master's degree in the relevant subject and a minimum of 10 years of academic experience participated in the first focal group discussion. Subsequently, 35 specialists engaged in the evaluation of content validity for the WRLBP questionnaire. To assess reliability, a sample of 200 staff nurses employed in hospitals was chosen to participate in this questionnaire.

Results: The newly developed WRLBPQ tool demonstrates strong scale-level content validity, achieving a score exceeding 0.78 for each item. The kappa values for each item ranged from 0.97 for item quality to 1 for item content, indicating excellent agreement. The universal acceptance of each item was 0.91 for quality and 1 for content. The Pearson correlation coefficient was employed to determine test-retest reliability, yielding a result of rho=1 for session 1 and rho=0.82 for session 2. Inter-rater reliability was determined using the Intra-rater Correlation Coefficient (ICC), with values of 0.76 for rater A and 0.86 for rater B, alongside a Cronbach's alpha of 0.98.

Conclusion: The WRLBP questionnaire, the first measurement tool among nursing professionals, is a reliable and valid tool for evaluating WRLBP among nursing professionals.

Keywords: Low back pain, Nurses, Validity.