Abstract:

**Validity and Reliability of the Persian (Farsi) Version of Dallas pain questionnaire in chronic low back pain**

**Background:** Low back pain (LBP) is one of the most common cause of disability in the United States and worldwide especially in developing countries due to different environmental factors. Different etiologies have been introduced for chronic LBP. The most important etiologies of chronic disc disease, lumbar spinal stenosis and osteoarthritis. Between 2–7% of patients with acute LBP lead to chronic LBP if appropriate therapeutic intervention has not been performed for more than 12 weeks, which cause physical disabilities and direct and indirect cost between 12 and 90 billion dollars per annum. Therefore, finding the best method in order to evaluate chronic LBP immediately and use appropriate therapeutic intervention, may decrease the cost and complications of chronic LBP. Some of these functional disability scales are included Oswestry Disability Questionnaire, the Quebec Back Pain Disability Scale (QBPDS), the Roland-Morris Disability Questionnaire and the Dallas Pain Questionnaire (DPQ), however, none of them has not been as a gold standard in evaluating functional disability due to different reliability, validity, feasibility, etc. reported for them. The aim of this study was to evaluate validity and reliability of Persian version Dallas pain questionnaire.

**Materials and methods:** This prospective double-blind clinical trial was conducted in physical medicine and rehabilitation Department of Tehran Firouzgar Hospital, from November 2015 to May 2016. Inclusion criteria consisted of patient referred to physical medicine and rehabilitation Department with a diagnosis of chronic low back pain (low back pain for 3 months and VAS score>4), signed a consent form to participate in the study. Exclusion criteria consisted of patients with fibromyalgia syndrome, LBP due to malignancy or metastasis, LBP originated from abdominal viscera and pelvic pain, major depression, spondylolisthesis, LBP after fracture, age below 18 years, and dissatisfaction to continue participation in study. We also excluded patients with uncompleted data.

One hundred forty patients with a diagnosis of chronic LBP (Low Back Pain), who had been diagnosed by specialist of physical medicine and based on clinical findings and inclusion and exclusion criteria were included. After obtaining informed consent, eligible patients were enrolled. Demographic data of patients were recorded.

DPQ was completed for all the patients at the time of admission to the department or clinic of physical medicine & rehabilitation of Firouzgar and 48 hours after the first visit with other person. At the same time Functional Rating Scale (FRI) questionnaire, previously validated for LBP, also complemented for all the patients and convergent validity, construct validity, and discriminant validity were measured for DPQ. Reliability and validity of the DPQ were evaluated by Cronbach alpha test.

**Result:** Statistical analysis of data was performed using SPSS version 22 software. Analysis was done using descriptive statistics such as mean and standard deviation and analytical statistics such as T-test. Reliability and validity of the DPQ were evaluated by Cronbach alpha test (Cronbach alpha test = 0.87).
**Conclusion**: Validity and reliability of the Persian version Dallas pain questionnaire with a high utility, was confirmed.

**Key words**: Dallas pain questionnaire, Persian version, Validity, Reliability, Low back pain