

Distribution of Involvement of Physical Functions Among Patients with Different Grades of Knee Osteoarthritis in the Eastern Province of Sri Lanka

U.M. Luthfi^{1*}, S.I. Wadugodapitiya², T. Sivakumar³

¹*Base Hospital, Mutur, 31200, Sri Lanka*

²*Department of Physiotherapy, University of Peradeniya, Peradeniya, 20400, Sri Lanka*

³*Base Hospital, Kinniya, 30010, Sri Lanka*

**luthfipera@yahoo.com*

Osteoarthritis (OA) is a progressive non inflammatory disease and is a major form of arthritis causing pain and disability. Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) is a most popular and widely used questionnaire to assess pain, stiffness, and physical functions in individuals with knee osteoarthritis (KOA). It consists of 24 items over 3 subscales; 5 items for pain, 2 items for stiffness and 17 items for physical function. This study was conducted to identify the distribution of involvement of physical functions among patients with different grades of KOA. This cross sectional descriptive study consisted of 324 participants with bilateral KOA including 251 females and 73 males from seven selected hospitals in the Eastern Province, Sri Lanka. Severity of KOA was assessed according to Kellgren & Lawrence (K – L) grading system (grades 0 – 4) using anterior posterior view radiographs. Self-administered WOMAC index was used to assess the knee functions. It was observed that the mean of WOMAC scores increased with the increasing of KOA grades in both the left and right knees. The WOMAC score peaked at KOA grade 3 (Moderate) for both the right and left knees with a mean of 71.34 ± 12.41 and 70.61 ± 14.06 , respectively. It indicated that pain, stiffness and activity limitation increased with the severity of KOA. Also, it was observed that the WOMAC score dropped at KOA grade 4 for both the knees. However, this particular finding cannot be generalized due to the small number of participants with KOA grade 4 (N = 8) in the present study. WOMAC score exhibits a linear relationship with the KOA severity. Further, variability observed within the KOA grades indicates that, individuals with KOA experience a wide range of pain, stiffness and difficulties in their daily life. This study confirms that the WOMAC index is an effective tool for determining an individual burden from KOA and for designing patient based physiotherapy interventions.

Keyword: Knee osteoarthritis, WOMAC index, Kellgren & Lawrence grading system