

Impact of knee osteoarthritis complications on quality of life in older adults attending the National Hospital of Sri Lanka

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Knee osteoarthritis (KOA) is a progressive degenerative joint disorder characterized by pain, stiffness, and swelling, which can greatly reduce quality of life (QoL). Knee osteoarthritis often leads to reduced physical performance, increased pain perception, kinesiophobia, and impaired proprioception. This study evaluates the impact of these KOA complications on QoL in older adults. A cross-sectional study was conducted at the National Hospital of Sri Lanka between August and September 2024, involving older adults aged 65 years and above with grade 3 KOA. The QoL was assessed using the 36-Item Short Form Survey (SF-36), while physical performance was tested with the Timed Up and Go (TUG) test. Proprioception and kinesiophobia were evaluated through the lower limb position sense test and Tampa Scale for Kinesiophobia (TSK), respectively. Pain was assessed using the visual analogue scale (VAS). Spearman's rank correlation was used for statistical analysis via SPSS version 23. The study involved 246 older adults diagnosed with KOA, including 207 females (84.1%) and 39 males (15.9%), with a mean age of 69.3 ± 3.8 years. A moderate negative correlation was found between TUG scores, TSK scores, and the Physical Component Summary (PCS) of the SF-36 ($p < 0.001$). Furthermore, a weak but significant negative correlation was found between the Mental Component Summary (MCS) and both TUG ($p < 0.001$) and TSK ($p = 0.009$) scores. Pain severity showed a weak significant negative correlation with PCS ($p < 0.001$), while proprioception showed no significant association with either component of QoL. Physical performance and kinesiophobia are moderately associated with poorer physical QoL and weakly linked to mental well-being in older adults with KOA. Pain severity also negatively impacts physical QoL, whereas proprioception shows no significant impact. These results highlight the importance of addressing mobility limitations, kinesiophobia, and pain management in improving the quality of life in this population.

Keywords: *Knee osteoarthritis, Quality of life, Physical performance Kinesiophobia, Painproprioception*