Relationship between lower extremity function and physical activity in older adults with chronic lower extremity pain in selected elderly homes in Kurunegala District

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Physical activity plays a major role in maintaining muscle strength, balance, and functional abilities. Lower extremity function is essential for maintaining mobility and independence in older adults. This study aims to assess the relationship between lower extremity function and physical activity in older adults with chronic lower extremity pain residing in selected elderly homes in the Kurunegala District. A descriptive cross-sectional study was conducted in four selected elderly homes in the Kurunegala District, Sri Lanka. Participants aged 60 years and above with lower extremity pain for three months or more were recruited. Lower extremity pain, lower extremity function, and physical activity level were assessed using the self-reported questionnaire, Short Physical Performance Battery (SPPB), and International Physical Activity Questionnaire -Short Form (IPAQ-SF), respectively. Data were analyzed using descriptive statistics and the Spearman correlation test in SPSS version 22.0. Among the 96 participants, 63.5% were female with a mean age of 75.72 (SD±7.76) years. The prevalence of pain in the knee was the highest (73.95%), and the right side (61.45%) of the knee was more affected than the left side (52.08%). The majority of the participants (78.1%) had low physical activity levels, and none were categorized as highly active. The mean SPPB score was 5.67 (SD±2.76), indicating an intermediate level of lower extremity function overall. A significant, strong positive correlation between the lower extremity function and physical activity ($r=0.608$, $p<0.001$), suggesting that better lower extremity function is linked to greater physical activity in institutionalized older adults with chronic lower extremity pain. The findings indicate that higher lower extremity function is associated with better physical activity in this population. These results highlight the need for interventions aimed at improving lower extremity function to promote physical activity and potentially enhance mobility and independence among institutionalized older adults.

Keywords: *Chronic pain*, *Physical activity*, *Lower extremity function*, *Older adults*