

6<sup>th</sup> International Conference & Exhibition on

# Physiotherapy & Physical Rehabilitation

August 13-14, 2018 | London, UK

## Physical disability, range of motion and selected gait parameters in patients with unilateral knee osteoarthritis

Olusegun Olatunji Ojedoyin and Adegoke B O A  
University of Ibadan, Nigeria

Osteoarthritis is the most common joint disorder worldwide. In Nigeria, the most affected joint is the knee. There is paucity of literature on the interrelationships among physical disability, range of motion and selected gait of knee OA patients in Nigeria. This study therefore investigated the relationships between physical disability and knee flexion and each of stride length, dynamic base of support, walking speed and stride time in patients with knee OA. The participants were purposively sampled and recruited as they became available. The degree of physical disability was measured using Ibadan knee/hip osteoarthritis outcome measure questionnaire (IKHOAM), with higher IKHOAM scores implying lesser physical disability. Active knee flexion was measured using goniometer. Footprints of participants were recorded in a 10m paper walkway. Kinematic gait parameters were computed using the footprints within the central 6m of the 10 m walkway. Pearson's product moment correlation was used to determine the correlation between the IKHOAM Scores and degree each of knee flexion, between the IKHOAM Scores and each of kinematic gait parameters and between range of knee flexion and each of the kinematic gait parameters. The level of significance was set at 0.05 alpha. Results showed significant correlations between physical disability and each of knee flexion ( $P=0.016$ ,  $r=-0.336$ ), stride time ( $P=0.023$ ,  $r=+0.347$ ), stride length ( $P=0.000$ ,  $r=-0.652$ ), walking speed ( $P=0.000$ ,  $r=-0.586$ ). And also between knee flexion and each of walking speed ( $p=0.009$ ,  $r=0.396$ ), and stride time ( $p=0.029$ ,  $r=-0.333$ ). It was concluded that walking speed and stride time were the only kinematic parameters that correlated with each of knee flexion and physical disability.

### Biography

Olusegun Olatunji Ojedoyin has completed his MSc and MPH from University of Ibadan and Obafemi Awolowo University Ile-Ife, Nigeria. He is currently a PhD candidate at the University of Ibadan, Nigeria and also the Chief Physiotherapist at Lagoon Hospitals, Ikeja, Nigeria. He has published few papers in reputed journals.

olusegunojedoyin@gmail.com

### Notes: