Factors effecting gait velocity in osteoarthritis knee-An observational study.

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Introduction: Osteoarthritis of the knee is one of the most prevalent degenerative joint conditions globally with a reported prevalence rate of 10% in those above the age of 60 years. Knee osteoarthritis is known to show anomalies in gait with fundamentally decreased strolling speed, shorter step length and a more drawn-out position period of the stride cycle. Decreased Gait velocity, which is regarded as an important indicator of frailty has been extensively reported in subjects with OA knee, and is generally attributed to the existence and interaction of multitude of disease related factors such as pain and alterations in muscle strength. However our extensive review of literature failed to identify if there are predictors of gait speed among socio economic, anthropometric and trunk/upper body kinematic variables while walking in subjects with OA knee. Methodology: Sixteen subjects with primary osteoarthritis were recruited for the study. Their gait velocity was evaluated using the 10meter walk test, and the strength of association of the same was tested against age, height, weight, BMI, WOMAC score, FRT, socio economic score, lower extremity muscle strength, ROM of lower extremity joints and lateral trunk lean while walking. Conclusion: From the current study it can be concluded that gait velocity in subjects with osteoarthritis is majorly influence by age, lateral trunk lean while walking, and range of bilateral lower extremity joints.