

Establishing Normative Reference Score of Foot Tapping Test among Healthy College going Students: A Cross-sectional Study

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ABSTRACT

Introduction: The Foot Tapping Test (FTT) is an assessment tool used to evaluate Upper Motor Neuron (UMN) function, particularly in individuals with neurological conditions affecting gait and mobility. However, there is lack of normative values in both healthy and clinical populations regarding the FTT.

Aim: This study aimed to establish normative reference values for the FTT in healthy young adults.

Materials and Methods: A total of 226 healthy individuals (113 males, 113 females) aged 19-24 years were recruited in the study. Participants were asked to perform the FTT in a short sitting position, and anthropometric measurements were recorded.

Results: Data was analysed using IBM SPSS Statistics 26.0. Normality tests were conducted using the Kolmogorov-Smirnov test. Significant variability in foot tap performance was observed across age groups. Those aged 19 years had foot taps range for

dominant foot, 12 (14-26) and 9 (17-26) individuals had foot taps range for non-dominant foot, those aged 20 years had 16 (14-30) and 15 (14-29) individuals, those aged 21 years had 18 (20-38) and 23 (17-40) individuals, those aged 22 years had 22 (20-42) and 21 (20-41) individuals, those aged 23 years had 22 (18-40) and 23 (17-40) individuals, while those aged 24 years had 14 (22-36) and 19 (21-40) individuals. While younger participants (19-20 years) exhibited more consistent performance, greater variability was observed in the 21-23-year-old age group.

Conclusion: This study established a normative reference values for the FTT in a healthy young adult population (19-24 years). The findings demonstrate significant variability in foot tap performance across this age group. The findings highlight the importance of considering age-related variability when interpreting FTT results.

Keywords: Gait, Foot tap performance, Upper motor neuron.