ABSTRACT

Background: Fidgeting is a non-goal-directed repetitive motor activity that is frequently linked to attentional regulation, arousal control and self-regulation. Low-intensity repetitive lower limb movements (also referred to as leg fidgeting) executed during sitting have now been demonstrated to have positive effects on vascular status, metabolic rates and cardiovascular responses during extended sitting time. The evidence relating its association with lower limb muscular endurance in young adults, however, is limited.

Methodology: This study employed descriptive cross sectional research design with group of 60 Young adults (18-25 years) were selected by convenience sampling method and were taken from Brainware University. The ADHD Self-Reporting Scale (ASRS) and self-reported dominance of fidgeting leg during the sitting activity were used to assess leg fidgeting behaviour. The Single-Leg Wall Squat (SLWS) Test was bilaterally used to assess lower limb muscular endurance under standard testing conditions. The total number of reps to volitional fatigue was recorded for both legs. Descriptive statistics and paired sample t-test were used to compare the endurance performance of right and left lower-limb.

Result: The mean rep score of the right leg (25.33) set better than the left leg (21.22) which showed good muscular endurance results on the right lower limb. The difference between the two legs was statistically significant (Paired sample t-test, $t = 3.85$, $p = 0.0003$). Furthermore, 54 out of 60 participants (90%) had improved endurance performance in the other leg which they mainly used for fidgeting behaviour, while 6 participants (10%) were worse. The current results indicate a possible link between the use of fidgety (rhythmic) movement of the lower leg and the existence of unilateral lower limb endurance dominance.

Conclusion: The results of the study showed that there is a statistically significant relationship between the habitual leg fidgeting behaviour and lower limb muscular endurance of young adults. Overall, the participants exhibited a greater endurance in the predominate fidgeting leg indicating that repetitive low-intensity movements could promote better muscular endurance capacity. The results give insights into the potential functional and physiological significance of habitually fidgeting legs and raised a need for additional studies that are more longitudinal and use objective measures to gain insights into the musculoskeletal implications of habitual leg fidgeting.

Keywords: Fidgeting, Leg Fidgeting, Muscular Endurance, Single-Leg Wall Squat Test, Young Adults, Lower Limb Endurance, Habitual Movement, Sedentary Behaviour, Self-Regulation, Attention Regulation, Unilateral Endurance Dominance, Motor Activity, Lower Limb Performance, Cross-Sectional Study

TABLE OF CONTENTS

SL NO.	TOPIC	PAGE NO.
1	INTRODUCTION	1-9
2	REVIEW OF LITERATURE	10-18
3	AIM AND OBJECTIVE	19-20
4	MATERIAL AND MERHODS	21-26
5	STATISTICAL ANALYSIS	27-30
6	RESULT	31-32
7	DISCUSSION	33-35
8	CONCLUSION	36-37
9	LIMITATIONS AND RECOMMENDATIONS	38-40
•	REFERENCES	41-44
•	ANNEXURES	45-49