



Timed Up and Go Test (TUG): Reference Data for Indian School Age Children

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To the Editor: The ‘Timed Up & Go’ test (TUG), most commonly used in elderly, measures in seconds the time required for an individual to stand up from a standard chair with armrest, walk 3 m, turn around, walk back to the chair, and sit down again [1]. Various studies published earlier show discrepancies in methodology, procedure of administering the test, ethnic diversities and age groups of sample [2]. As for population selected, no studies are published that target the Indian population. Considering its practicality, its increasing use in pediatrics and the lack of normative data for Indian school age children, this study was done to collect normative data for the TUG test in pediatric population aged 6 to 12 y.

In this cross-sectional study, after approval from the Institutional Ethical Committee, 876 (440 males; 436 females) Indian participants from 5 different schools were selected by convenience sampling, excluding those with musculoskeletal, neurological or other conditions that might affect the TUG time. Demographic data (Name, age, gender), anthropometric measures (Height, weight, BMI) and TUG test scores were collected for the selected children in the school itself. Modifications of the test for the pediatric population by use of chair with backrest but no armrest, and height with lower limb in 90° of knee flexion with feet supported on the floor and repeated instructions while conducting the test, were considered [3]. Three test timings were recorded using a stop watch and the mean was considered. The mean time taken to perform the TUG test was 6.8 s ± 0.76 s. The average time taken for each individual age group shows a

decreasing trend with increasing age with 6.1 ± 0.6 s, 6.5 ± 0.64 s, 6.8 ± 0.7 s, 6.8 ± 0.7 s, 6.8 ± 0.6 s, 7 ± 0.7 s, 7.2 ± 0.8 s for ages from 6 to 12 respectively. Only slight variations in the average TUG times were observed between males and females.

This study provides normative data for the TUG test for Indian children aged 6 to 12 y. This data can serve as a reference for population with disability like Cerebral Palsy [4], Down syndrome [5], etc. The study hence creates a database which will be useful in further related researches.

Compliance with Ethical Standards

Conflict of Interest None.

Ethics Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional ethical committee.

Consent to Participate Informed consent was obtained from legal guardians/parents and schools and assent was obtained from the child prior to the assessment.

References

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