

MEETING ABSTRACT

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# Reference data for derived Trail Making Test scores in Greek healthy population

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From 1<sup>st</sup> International Congress on Neurobiology and Clinical Psychopharmacology and European Psychiatric Association Conference on Treatment Guidance Thessaloniki, Greece. 19-22 November 2009

## Background

The Trail Making Test (TMT) via part B (TMT-B) has been widely used in the evaluation of the executive functions [1]. Apart from the direct scores (time to complete part A and B), derived TMT scores (B-A, B/A, B-A/A) are more and more used, as sensitive measures of prefrontal functioning [2-4]. The aim of the present study was to provide reference data from a large sample of Greek healthy participants in derived TMT scores.

## Materials and methods

Six hundred and forty-three healthy participants (aged between 16-83 yrs and with an educational level between 6-18 yrs) were included, satisfying the exclusion criteria of medical, psychiatric and neurological disorders. From the TMT performance, we further calculated the following derived scores: the difference score (B-A), the ratio score (B/A) and the proportional score (B-A/A).

## Results

For the entire sample (N: 382/261; age:  $48.5 \pm 17$  yrs; education:  $12 \pm 3.5$  yrs), derived mean scores for (B-A) was  $61.7 \pm 43.6$  seconds (range: 1-325 seconds), for (B/A) was  $2.3 \pm 0.8$  (range: 1-7.4), and for (B-A/A) was  $1.3 \pm 0.8$  (range: 0.01-6.4). At  $p < .05$ , age was significantly associated with (B-A) ( $r = 0.53$ ), (B/A) ( $r = 0.27$ ) and (B-A/A) ( $r = 0.27$ ) scores. Significant correlations ( $p < .05$ ) were also emerged between years of education and the three previous mentioned derived scores ( $r = -0.20$ ,  $r = -0.13$ ,  $r = -0.13$ , respectively). Gender was unrelated to derived TMT scores ( $r < .05$ ,  $p$  n.s.). Based on post-hoc

comparisons between age groups (per decade of age) and education groups (6-9 yrs, 10-12 yrs, 13-18 yrs), we stratified our sample according to age and years of education and present reference data for the three derived TMT scores as mean (sd).

## Conclusions

The Greek reference data for the derived TMT measures, stratified by age and education, are presented for application in clinical and experimental practice as useful indices in identification of probable executive dysfunction.

Published: 22 April 2010

## References

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doi:10.1186/1744-859X-9-S1-S145

**Cite this article as:** Zalonis et al.: Reference data for derived Trail Making Test scores in Greek healthy population. *Annals of General Psychiatry* 2010 **9**(Suppl 1):S145.

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