



I International Congress of
Neuropsychological Rehabilitation in
Acquired Brain Injury

III Symposium of
Neuropsychology and Rehabilitation

Looking for a brain injury in the WAIS-III composite measures

Marta A. Gonçalves*¹, Octávio Moura^{2,3}, Mário R. Simões^{2,3,4} e Alexandre Castro-Caldas⁵

1. Laboratório de Estudos de Linguagem, Faculdade de Medicina de Lisboa
2. Centro de Investigação do Núcleo de Estudos e Intervenção Cognitivo-Comportamental (CINEICC) da Faculdade de Psicologia e de Ciências da Educação da Universidade de Coimbra
3. Laboratório de Avaliação Psicológica e Psicometria da Faculdade de Psicologia e de Ciências da Educação da Universidade de Coimbra
4. Faculdade de Psicologia e Ciências da Educação da Universidade de Coimbra
5. Instituto de Ciências da Saúde, Universidade Católica Portuguesa

* **Presenting author:** email address - martaagoncalves@hotmail.com

ABSTRACT

Introduction: Since its first edition, Wechsler Adult Intelligence Scale is considered the gold standard of intelligence measure and one of the core instruments in the neuropsychological assessment (Lezak, Howieson & Loring, 2012).

Objectives: Looking for a brain injury cognitive profile in the WAIS-III composite measures.

Materials and Methods: Eighty one mixed neurological patients and 81 demographically (i.e. gender, age and literacy) matched healthy participants performed the Portuguese WAIS-III (Wechsler, 2008). Independent t-Test, ROC curve analysis, linear regression analysis and univariate analysis of covariance (ANCOVA) were used.

Results and Discussion: Although neurological patients performed significantly lower than the healthy participants for all the seven composite scores (i.e. VIQ, PIQ, FSIQ, VCI, POI,

Organization:



Partnership:





I International Congress of
Neuropsychological Rehabilitation in
Acquired Brain Injury

III Symposium of
Neuropsychology and Rehabilitation

WMI, and PSI, $p < .001$) and for two out of seven discrepancy scores (i.e. VIQ-PIQ and VCI-WMI, $p = .026$ and $p = .001$ respectively), in the clinical evaluation, all means of these scores are within norm and therefore at risk of being unobserved. Only WMI had acceptable specificity (88.7% and a sensibility of 47.1%), but the cut-off criterion of 86 has a limited clinical value. Linear regression analysis showed that both literacy level and presence of brain injury predict the seven composite measures for all participants. Literacy, age of injury onset and years of survival have showed to predict the seven composite measures for the clinical group.

Conclusion: Despite the failure to find a brain injury cognitive profile, the results showed a significant influence of brain injury as well as literacy in the performance of the WAIS-III.

Acknowledgements:

Financial funded: Fundação Ciência e Tecnologia (FCT) Grant number SFRH/BD/68842/2010

References:

- Lezak, M.D.; Howieson, D.B., Loring, D.W. et al. (2012). *Neuropsychological Assessment* (5th ed.). Oxford, New York: Oxford University Press.
- Wechsler, D. (2008). *WAIS-III: Manual da Escala de Inteligência de Wechsler para Adultos – 3ª edição*. Lisboa: CEGOC-TEA.

Organization:



Partnership:

