

20<sup>th</sup> Euro Congress on

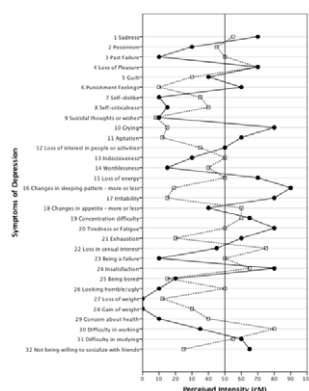
# PSYCHIATRISTS AND PSYCHOLOGISTS

August 07-08, 2017 | Rome, Italy

## Use of the Borg CR100 Scale® to scale depressive symptoms: A study between Brazil and Sweden

Adsson Magalhaes<sup>1</sup>, Elisabet Borg<sup>2</sup>, Ewa Mortberg<sup>2</sup> and Marcelo Costa<sup>1</sup><sup>1</sup>University of Sao Paulo, Brazil<sup>2</sup>Stockholm University, Sweden

The Borg CR scales® are Category-Ratio scales with verbal anchors placed in agreement with the numerical scale so as to obtain ratio data. The scales were first developed to assess physical exertion and have been widely applied in physiology, ergonomy, physiotherapy, etc. We aimed to study the use of the Borg CR100 Scale (centiMax®, cM) to assess depressive symptoms. In an online survey, 32 symptoms of depression were scaled in centiMax and compared to the Beck Depression Inventory (BDI). Here we analyzed the answers from 100 students of Psychology (50 Brazilians-BR and 50 Swedes-SE). The Swedish average BDI was 14.0 ("Mild depression"), compared to 26.1 cM (a moderately Strong perception or feeling), and the Brazilian was 13.3, on BDI and 20.4 cM. The SE-Pearson correlation between CR100 and BDI was 0.754 ( $p < 0.001$ ) and BR-correlation  $r = 0.824$  ( $p < 0.001$ ), which implies that the CR100 can be used to assess depression. More importantly, with ratio data the true relationships among feelings can be studied. In this sample of healthy participants, "Tiredness or Fatigue", was given the highest rating ( $m = 43.9$  cM-SE), for example perceived as about twice as strong as "Guilt" ( $m = 21.8$  cM-SE) and approximately four times as strong as "Punishment Feelings" ( $m = 11.6$  cM-SE). The results show that the Borg CR100 Scale is valid to assess depressive symptoms and also provides data with more possibilities of using the scores than the BDI, for example in symptom profiles for individuals (Fig. 1) or for groups. With Borg's range model, both intra- and inter-symptom comparisons, within and between single individuals as well as groups, are possible.



### Biography

Adsson Magalhaes is a Psychologist, and Behavior Analyst. He received Master's in Neuroscience and Behavior and PhD from Institute of Psychology of University of Sao Paulo, Brazil. During 2016, he was an exchange student at Stockholm University, studying the Borg Scales with Prof. Elisabet Borg. For the last five years, he has been dedicated to study Psychophysics, Perception, Clinical Psychology, Behavior Analysis and Autism.

adsson.magalhaes@gmail.com

### Notes: