



Methodology for cross-cultural adaptation of psychometric instruments

Wanderson Roberto Silva*

Universidade Estadual Paulista - UNESP, Araraquara, São Paulo, Brazil

wandersonroberto22@gmail.com

Juliana Dias

Universidade Estadual Paulista - UNESP, Araraquara, São Paulo, Brazil

julianacrdias@yahoo.com.br

David Costa

Instituto Universitário de Ciências Psicológicas, Sociais e da Vida - ISPA, Lisbon, Portugal

david_natanael@hotmail.com

Filipa Pimenta

Instituto Universitário de Ciências Psicológicas, Sociais e da Vida - ISPA, Lisbon, Portugal

filipa_pimenta@ispa.pt

João Maroco

ISPA- IU, Instituto Universitário de Ciências Psicológicas, Sociais e da Vida - ISPA, Lisbon, Portugal

jpmaroco@ispa.pt

Juliana Campos

Universidade Estadual Paulista - UNESP, Araraquara, São Paulo, Brazil

jucampos@fcfar.unesp.br

Abstract

Cross-cultural research is important to compare data from subjects with distinct cultural characteristics. The adaptation of psychometric measurement instruments is commonly observed in the literature. This study presents a methodology to perform the cross-cultural adaptation of instruments in different cultures using as example the Weight Concerns Scale (WCS) when applied to a sample of Brazilian and Portuguese female university students. Participated of this study 263 Portuguese students (mean=20.6 years, standard deviation = 1.8) and 252 Brazilian students (mean=21.1 years, standard deviation = 2.8). The participants responded the European and Brazilian Portuguese conciliated version of WCS. The face and content validity of the WCS were evaluated. Confirmatory factorial analysis was used and the goodness-of-fit indices applied were the chi-square by degrees of freedom ratio (χ^2/df), comparative fit index (CFI), normed fit index (NFI) and the root mean square error of approximation (RMSEA). The convergent validity was evaluated by the average variance extracted (AVE). The reliability was estimated by the composite reliability (CR) and internal consistency (α) of the measures. The factorial stability was checked by multiple-group analysis with groups' differences evaluated by $\Delta\chi^2$ tests. The conciliated version of the WCS presented adequate fit to total sample ($\chi^2/df = 6.57$; CFI= .97; NFI= .96; RMSEA= .10), Brazilian sample ($\chi^2/df= 5.37$; CFI= .95; NFI= .93; RMSEA=.13), and Portuguese sample ($\chi^2/df= 3.20$; CFI= .98; NFI= .97; RMSEA= .09). The WCS presented strong invariance between the two countries ($p > .05$). Analysis showed that the cross-cultural version adapted of WCS shows adequate validity, reliability and stability for both countries with different cultural contexts.

Keywords: cross-cultural; validation; reliability; methodology.