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**Confirmatory Factor Analysis of the Resilience Scale short form in a Portuguese Adolescent Sample**  
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**Introduction**

The Resilience Scale was originally developed to identify the levels of individual resilience. The Resilience scale short form is a shorter version of the Resilience Scale and was developed to reduce the participant burden and to increment response (Wagnild, 2009). This instrument consists in 14 items of the RS long form. The Portuguese version of the scale comprises 13 items, one less than the original scale.

Investigations concerning the factorial structure of the RS short form are still scarce.

The present study aimed to corroborate the unifactorial structure of the Resilience Scale short version for adolescents (Pinheiro & Matos, 2013) proposed by Wagnild (2009), to explore its reliability and to analyze the predictive power of resilience regarding depressive symptomatology in a Portuguese adolescent sample.

**Methods**

A Confirmatory Factorial Analysis was performed in a sample of 308 adolescents, female (n=167) and male (n=141) with ages ranged between 12 and 17 years (M=13.77; SD=1.142).

In order to evaluate the best goodness-of-fit for the original model of the RS short form, the following criteria were considered: GFI >.90, AGFI >.90, CFI >.95, TLI >.90 and RMSEA < .06. The factorial validity of the items was analyzed by standardized factor weight ( $\lambda=0.5$ ) and by individual reliability ( $r^2 \geq 0.25$ ).

A linear regression analysis was used to test the association between resilience, measured by RS short form and depressive symptomatology, measured by CDI (Childrens’ Depression Inventory, Portuguese version by Marujo, 1994), an instrument that assesses depressive symptoms in children and adolescents.

**Results**

Three CFA’s were performed to attain the best goodness-of-fit for the RS short form. The goodness-of-fit for the first model was poor ( $\chi^2 /df=3.596$ ; CFI=.87; GFI=.89; AGFI=.85; TLI=.84; RMSEA=.09). Item 9 (“I can usually find something to laugh about”) showed a low factor weight and low individual reliability, and was consequently excluded. The second analysis revealed a best goodness-of-fit, however the fit still weak ( $\chi^2 /df=3.318$ ; CFI=.89; GFI=.91; AGFI=.87; TLI=.87; RMSEA=.09). A casual pathway was established between item 4 (“I am friends with myself”) and item 12 (“My belief in myself gets me through hard times”). The last CFA that was conducted revealed the best goodness-of-fit ( $\chi^2 /df=2.798$ ; CFI=.92; GFI=.93; AGFI=.89; TLI=.90; RMSEA=.08) and led to the construction of a scale composed of 12 items (items 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12 and 13), one less than the Portuguese version, distributed by a common latent factor that is resilience. The RS short form presents a good reliability, with a Cronbach’s alpha value of .87. Results showed that resilience was negatively related with depression and is predictive of depressive symptomatology. However, the percentage of explained variance was relatively low.

**Conclusion**

The present findings support the one factor solution for the RS short form in an adolescent sample, replicating the unifactorial structure found by Wagnild (2009) and by the authors of the Portuguese version of the instrument (Pinheiro & Matos, 2013) in an exploratory factorial analysis. The results also support that resilience seems to be a protective factor concerning depressive symptoms.

This investigation is a contribution to the study of cross-cultural validation of the RS and can be important for the development of interventions that aim to prevent and treat depression and other psychopathological problems in the adolescent population.

**References**

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