

# THE BRIEF PEER CONFLICT SCALE: PSYCHOMETRIC CHARACTERIZATION ACROSS PORTUGUESE ADOLESCENTS AND YOUNG ADULTS

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## INTRODUCTION

- **Aggressive behavior** intends to cause harm to others (Archer & Coyne, 2005) and its expression seems to **change throughout development** (Archer, 2004; Ojanen & Kiefer, 2013).
- **Aggressive behavior** can assume different forms and functions:
  - **Forms:** direct/overt (e.g., physical or verbal aggression) and/or indirect/relational acts (e.g., excluding others) (Archer & Coyne, 2005).
  - **Functions:** proactive and/or reactive (Little, et al., 2003).
- The **Brief Peer Conflict Scale (Brief PCS)** measures aggressive behavior as a multidimensional construct associated with forms (i.e., overt and relational) and functions (i.e., reactive and proactive). It has been previously used with adolescent samples, **but its utility with young adults and its invariant use across these development phases has not been addressed before.**



**Goal:** To investigate the psychometric properties of the Brief PCS across Portuguese community samples of adolescents and young adults.

## METHOD

### Participants

- Recruited in academic contexts
- They filled in a self-report protocol in class time granted by the teacher
- Informed written consent was obtained from participants or their legal guardians.



### Instrument

- **Brief Peer Conflict Scale (Brief PCS):** Portuguese version of the items developed by Vagos et al. (2014, 2021) and the 20 items proposed by Russell (2014).
  - It assesses four dimensions of aggressive behavior: proactive overt, proactive relational, reactive overt, and reactive relational aggression.

### Data analyses

- Measurement models were analyzed based on Confirmatory Factor Analyses, with fit being considered acceptable if CFI  $\geq .92$  and a RMSEA  $\leq .07$  (Hair Jr et al., 2009).
- Internal consistency was based on  $\alpha \geq .70$ .
- Measurement invariance was tested using a forward approach (Dimitrov, 2010): configural, then metric, and then scalar invariance were considered.
- Mean-based comparisons were also considered.

## RESULTS

- Out of four competing measurement models, **the four-factor model representing four combinations of the forms and functions of aggression** (i.e., proactive overt, proactive relational, reactive overt, and reactive relational aggression) **was the best fit for the data** (see Table 1).
- **Bearing consistency in the measurement models across multiple age-groups**, we arrived at a **16-item four-factor model that acceptably fitted the data** (see Table 1) and complied with a minimum of three items per measure. **All measures had acceptable internal consistency values:**  $\alpha = .77$  for proactive overt aggression,  $\alpha = .67$  for proactive relational aggression,  $\alpha = .90$  for reactive overt aggression, and  $\alpha = .71$  for reactive relational aggression.
  - The 16-item four-factor model was a good fit for both age samples taken separately, **pointing to configural invariance** (see Table 1). Further **full metric** [ $\chi^2(12)=13.45, p=.33$ ] and **full scalar** [ $\chi^2(11)=8.85, p=.72$ ] invariance was found.
- There was a **significant effect of age for proactive overt** [ $F(1,886)=9.29, p=.002, \eta_p^2=.010$ ], **reactive overt** [ $F(1,886)=32.47, p<.001, \eta_p^2=.035$ ], and **reactive relational aggression** [ $F(1,886)=11.25, p=.001, \eta_p^2=.013$ ]: **adolescents always scored higher than young adults** (see Table 2).

Measurement model	RMSEA	90% CI for RMSEA	CFI
20-item four-factor model	.048	.043; .053	0.96
16-item four-factor model	.056	.050; .062	0.96
<b>Age-based measurement invariance</b>			
Adolescents	.061	.053; .070	0.96
Adults	.043	.032; .053	0.96
Unconstraint model	.048	.042; .055	0.97
Full metric invariance model	.042	.035; .049	0.98
Full scalar invariance model	.044	.037; .050	0.97

Table 2: Descriptive data for measures of the Brief Peer Conflict Scale, for the complete sample and by age groups

	Total sample	Adolescents	Young adults
Proactive overt	5.86 (1.91)	6.08 (2.32)	5.68 (1.51)
Proactive relational	3.82 (1.39)	3.83 (1.52)	3.21 (0.98)
Reactive overt	6.59 (2.76)	7.16 (3.31)	6.76 (3.08)
Reactive relational	4.68 (1.54)	4.86 (1.71)	4.77 (1.62)

Note: Values are taken from the 16-item four-factor measurement model. Values are presented as M (SD)

## CONCLUSIONS

- We present the psychometric characterization of the **Brief-PCS across Portuguese adolescents and young adults** (12-25 years old). We proposed a **16-item four-factor model** that was a **good fit for the data**, with all four measures achieving at least acceptable internal consistency values and **soundly measuring the combinations of the forms and functions of aggression invariantly across adolescents and young adults.**
- **Adolescents consistently reported practicing more aggression than young adults**, alike previous works (Archer, 2004; Fite et al., 2008). **Becoming less aggressive may serve an adaptive function** as one becomes part of societies that usually punish aggressive acts, especially overt ones. Alternatively, **relational aggression**, which did not differ significantly between age-groups may be seen a more advantageous way of hurting others (Archer & Coyne, 2005) that **is maintained throughout development.**
- The current work provides evidence for the psychometric quality of the Brief PCS as measuring combinations of the forms and functions of aggression invariantly across adolescents and young adults, in line with previous studies (Pechorro et al., 2018, 2021; Russell, 2014; Vagos et al., 2021). **The Brief Peer Conflict Scale (Brief PCS) may be a valuable tool in further exploring the theoretical and applied correlates of expressing aggression throughout the lifespan.**

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The current results have been submitted to publication: Vagos, P., Rodrigues, P. F. S., Pandeirada, J. N. S., & Marsee, M. (submitted). Aggressive behavior in adolescents and young adults: The psychometrics of the Portuguese Brief Peer Conflict Scale (Brief-PCS).



JNSP was supported by an investigator Grant, ref. CEECIND/01914/2017