

# THE LINK BETWEEN EMOTION REGULATION ABILITIES IN CHILDREN WITH ASD AND DEPRESSIVE SYMPTOMATOLOGY IN THEIR PARENTS

Andreia P. Costa, Katharina Schneider, Georges Steffgen  
University of Luxembourg

Department of Behavioural and Cognitive Sciences – Institute for Health & Behaviour

## Background

Research shows that parents of children with ASD have more depressive symptomatology than parents of typically developing (TD) children (Cohrs & Leslie, 2017).

Furthermore, studies with TD children show that children of depressed parents are at risk of developing low emotion regulation ability (Feng et al. 2008).

Therefore, it is hypothesized that emotion regulation abilities in children with ASD and depressive symptoms in their parents are related.

## Objective

To analyze the relationship between emotion regulation difficulties in children with ASD and depressive symptomatology in their parent.

## Procedure

Parents participating in a larger project on emotional ability in ASD answered to paper-and-pencil questionnaires about themselves and their children during a lab visit.

Andreia P. Costa  
andrea.pintocosta@uni.lu

Institute for Health & Behavior

11, Porte des Sciences  
L-4366 Esch-sur-Alzette  
Luxembourg



## Material

- **Parents' depressive symptomatology:** Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977)
- **Children's autistic traits:** Autism Spectrum Quotient Questionnaire for Children (AQ-Child; Auyeung et al. 2008)
- **Children's emotion regulation ability:** Emotion Regulation Checklist for children (ERC; Shields & Cicchetti, 1997)

## Participants

- 108 parents (84% mothers)
  - aged 26 to 53 years old ( $M = 40.47$ ,  $SD = 5.13$ )
- 108 children (72% boys) aged 4 to 12 years old
  - 36 children with ASD ( $M_{age} = 9.02$ ,  $SD_{age} = 2.61$ )
  - 72 TD children ( $M_{age} = 8.59$ ,  $SD_{age} = 2.27$ )

## Results

**Emotion regulation ability:** parents reported lower emotion regulation ability in children with ASD compared to TD children:  $t(106) = 7.68$ ,  $p < .001$ ,  $ES r = .60$

**Depressive symptomatology:** the odds of having clinically significant depressive symptomatology (CES-D score > 16) were 5 times higher for parents of children with ASD than TD:  $\chi^2(1) = 13.29$ ,  $p < .01$ ,  $OR = 5$

**Emotion regulation x depressive symptomatology:**

- Children of parents with depressive symptomatology had more emotion regulation difficulties:  $t(106) = 3.18$ ,  $p < .01$ ,  $ES r = .30$
- Children's emotion regulation difficulties were a better predictor of parents' depressive symptomatology than children's diagnosis (Table 1).

**Table 1.** Linear model of predictors of parents' depressive symptomatology

		<i>b</i>	SE <i>B</i>	$\beta$	<i>p</i>	$R^2$	$\Delta R^2$	$\Delta F$
Step 1	Constant	19.89 (12.56, 26.72)	3.63		< .01	.05	.05	5.78*
	Age	-0.93 (-1.71, -0.12)	0.38	-.23	< .05			
Step 2	Constant	35.19 (25.46, 44.63)	5.03		< .01	.22	.17	22.26***
	Age	-1.07 (-1.69, -0.41)	0.33	-.26	< .01			
	Group	-8.44 (-13.00, -4.03)	2.04	-.41	< .01			
Step 3	Constant	47.90 (35.16, 60.19)	6.58		< .01	.27	.05	7.57**
	Age	-1.08 (-1.68, -0.44)	0.32	-.26	< .01			
	Group	-4.90 (-9.91, 0.26)	2.37	-.24	< .05			
	ERC	-0.26 (-0.44, -0.09)	0.09	-.29	< .01			

Note: 95% BCa, CI and SE based on 1000 bootstrap samples

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

## Summary

As expected, children with ASD had more emotion regulation difficulties and their parents had more depressive symptomatology than TD children and their parents, respectively.

Children of parents with depressive symptomatology had more emotion regulation difficulties than children of non-depressed parents.

Emotion regulation difficulties incrementally predicted parents' depressive symptomatology above and beyond the children's diagnostic group.

**This suggests that the difficulty of children with ASD with emotion regulation might be an important aspect in the understanding of depression in their parents.**

## References

- Auyeung, B., Baron-Cohen, S., Wheelwright, S., & Allison, C. (2008). The autism spectrum quotient: Children's version (AQ-Child). *Journal of autism and developmental disorders*, 38(7), 1230-1240.
- Cohrs, A. C., & Leslie, D. L. (2017). Depression in parents of children diagnosed with autism spectrum disorder: A claims-based analysis. *Journal of Autism and Developmental Disorders*, 47(5), 1416-1422.
- Feng, X., Shaw, D. S., Kovacs, M., Lane, T., O'Rourke, F. E., & Alarcon, J. H. (2008). Emotion regulation in preschoolers: The roles of behavioral inhibition, maternal affective behavior, and maternal depression. *Journal of Child Psychology and Psychiatry*, 49(2), 132-141.
- Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied psychological measurement*, 1(3), 385-401.
- Shields, A., & Cicchetti, D. (1997). Emotion regulation among school-age children: the development and validation of a new criterion Q-sort scale. *Developmental psychology*, 33(6), 906.

