



# PREDICTORS OF EXTERNALIZING AND INTERNALIZING BEHAVIORS IN A SAMPLE OF PORTUGUESE PRESCHOOL CHILDREN

Pedro Dias<sup>1</sup>, Sónia Santos<sup>1</sup>, Alexandra Carneiro<sup>1</sup>, Patrícia Ferreira<sup>2</sup>, Vânia Sousa Lima<sup>1</sup>, Bárbara César Machado<sup>1</sup> 1 Center for Studies in Human Development | Faculty of Education and Psychology | Catholic University of Portugal

2 School of Psychology | University of Minho, Portugal

Introduction

Research regarding internalizing and externalizing problems during the preschool period has emerged as a priority in the child psychopathology literature over the last decades (Feil et al., 2005), due to several motives – the identification, during the 1970's of a significant percentage of preschool children presenting moderate to serious behavior problems (e.g. Richman, Stevenson, & Graham, 1975); the substantial increase of admissions of preschool children in psychiatric hospitals (Causey, Roberston, & Elam, 1998); and the confirmation, by longitudinal research, that early onset psychopathologic problems tend to continue during the subsequent developmental stages (Campbell, 1995; Furniss, Beyer, & Guggenmos, 2006).

Knowledge about risk factors for psychopathology during childhood has been increasingly more robust during the last years. Nontheless, the importance of the study of these factors has been stressed by several authors (e.g. National Advisory Mental Health Council's Workgroup on Children and Adolescent Mental Health Intervention Development and Deployment; 2001; Sroufe, Egeland, Carlson, & Collins, 2005). Longitudinal studies (e.g. Rochester Longitudinal Study; Sameroff, Seifer & Zax, 1982; Wynne, Cole & Perkins, 1987; Minnesota Longitudinal Study of Parents and Children; Erickson & Egeland, 2004; and National Institute of Child Health and Human Development (NICHD) Study of Earl Child Care and Youth Development; Axe, 2007) have identified several main risk factors for the development of psychopathological problems in children and adolescents: parental psychopathology; parental anxiety and atitudes; parent-child interaction; parental occupational status; parental educational level; ethnical minority; lack of family support; stressful life events; socio-economical status; insecure and disorganized attachment; and over-exposure to child care.

The present study aimed at identifying family risk factors specifically associated with internalizing problems in a normative sample of Portuguese preschool children.

## Methods

#### Sample

150 children (50% female), aged between 18 to 71 months (M=47.12; DP=12.32), attending preschool facilities in the north of Portugal. 81,4% live with both parents and siblings and 68% of them are the first child. Most families' SES status was medium-low.

#### Measures

- Socio-demographical questionnaire;
- Child Behavior Checklist for ages 1 ½-5 (Achenbach & Rescorla, 2000);
- Brief Symptom Inventory (Derogatis, 1978).
- Mothers responded to all measures.

## Results

#### **Predictors of Internalizing Behaviors**

Multiple regression analysis indicate that maternal psychopathological symptoms, paternal professional status, and maternal age significantly predicted internalizing problems in children, explaining 46 % of the variance [R2aj=.43; F (3,46) = 18.78, p<.01].

	R2 (R2aj)	F (3.46)	β	t
Maternal age			.59	6.49**
Mother's PSI (BSI)	.46 (.43)	18.78**	.24	2.65**
Father's professional status			25	2.71**
** p≤0.01 (2 tailed)				

### **Predictors of Externalizing Behaviors**

Multiple regression analysis indicate that externalizing problems were only significantly determined by maternal psychopathological symptoms, explaining 18 % of the variance [R2aj=.10); F(3,46)=16.17, p<.01].

	R2 (R2aj)	F (3.46)	β	t
Mother's PSI (BSI)	.10(.10)	16.17**	.32	4.02**
** p≤0.01 (2 tailed)				

## Discussion

- The most significant predictors of internalizing problems in this normative sample (maternal psychopathological symptoms, paternal professional status and maternal age) are reported, in several longitudinal studies, as risk factors for negative developmental outcomes (e. g. Sameroff et al., 1987; Erickson & Egeland, 2004). Furthermore, maternal psychopathology the only predictor of externalizing behavior in this study is the most researched risk factor for psychopathology in children (Connell & Goodman, 2002).
- Expanding the knowledge regarding risk factors for internalizing and externalizing problems in Portuguese preschool children can be of great value for informing mental health and education professionals working with this population, allowing the implementation of empirically-based intervention strategies with children and families.