

Prevention Practice of Stress in Preschool Education: Educators' Perception

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Abstract: *In the context of pre-school, Educators have an important role in the planning of educational facilitators of child involvement practices. This study aims to identify an educational practice that acts in stress prevention.*

The sample was composed by 300 Educators who responded to the subscale Educational Practices for Dealing with Stress in Childhood (EPELSI) of P2SEPE Protocol (Gomes & Pereira, 2009), which seeks to identify educational practices that educators develop to deal with children under stress. The results showed statistically significant differences between the pedagogical practice planning time and planning of cooperation activities between the school/family and prevention activities. Also the teaching experience influences the practices that work in promoting the welfare of children, but educators that are under 12 years of service are the ones who develop them in their praxis. However educators with more than 26 years of duty plan activities related to cooperation school / family, prevention activities and psychoeducational planning for prevention of stress. They will be discussed further implications for teaching and training of these professionals.

Keywords: Stress, Preschool education, Educational practices, Stress prevention

1. Introduction

Stress prevention practices are a current concern of educational processes. In the contexts of pre-school development facilitating processes of social interaction, cooperative learning and foster the relationships between all stakeholders in the educational process (Jackson, 2009), allowing the effective involvement of children. Also Veiga (2009) emphasizes the promotion of psychosocial rights of students in primary education, by the reduction of violent behaviour and therefore by the activation of their personal and educational well-being. It is therefore crucial to identify educational practices that promotes a climate of empathy and wellness Onchwari and Keengwe (2011), where the child is valued and supported to build a positive self-concept in order to prevent and intervene pedagogically in the child's exposure to stress-inducing situations, showed in studies such as Murray and Harrison (2005). For these authors, inducing stressful situations in kindergarten are related to the non-involvement of children in school activities, peer rejection, anxiety separation and conflicted relationship with the infant teacher.

In addition, to perceive inducing stressful situations it is also important to understand the psychological constructs of social and emotional behaviour (Denham et al., 2012) and the way they develop in the peer relationship with parents and teachers available to give to children specific feedbacks and construction, which are predominant in the child's healthy functioning (Dias, 2009; Pereira, 2006). It deserves particular importance the role that the educator has to take in structuring a praxis that provides spaces that involves the child to explore new possibilities, co-constructors of knowledge, identity and culture (Broström et al., 2015), enabling it to work creatively (Dahlberg, Moss, & Pence, 2003), so that they realize their skills and cope with anxiety. The relationship between the child and adult Blair-Gómez (2013) emphasizes the importance of attachment relationships, even in parental separation situations, emotional deprivation, institutionalization and abuse or neglect. The parenting study of Portuguese parents (Cardoso, 2011) shows that in single-parent nuclear families, children are more vulnerable to situations of anxiety / depression and social problems.

Educational contexts are constituted so as physical and social spaces where the child participates and reconstructs their social

peer interactions mediated by the educator, a pedagogy of participation, which includes the emerging curriculum, meaning, from the perspective of Rinaldi (1999) that counts also with interactive partners of school children, teachers and families. Belsky and Fearon (2008) suggest that the teacher is sensitive, responsive and predictable in establishing relationships with children in their practice, promoting a secure engagement and acquisition of socio-emotional skills in children.

This study sought to identify educational practices acting with stress prevention level in children who attend preschool education.

2. Methodology

In this study participated 300 teachers which (97.7%) were female educators and (2.3%) male, aged 18 to 62 years. Developing teaching activity between 1-46 years of work experience in public institutions (87%) and private institutions (13%), with children from 2 to 6 years old. The organization of classes in heterogeneous age groups is the most representative distribution (82.7%), distributed by classes with children 3, 4 and 5 years old (39.3%); 4 and 5 years old (13.3%) and 3, 4, 5 and 6 years old (10.3%). The organization of classes in homogeneous groups is 17.3%, distributed in 9.7% of classes aged 3 years old, 1.0% for 4 years old 4.7%; at 5 years and 2.0% in 6 years old.

The instrument applied was the subscale "Educational Practices for Coping with Stress in Childhood (EPELSI)" of Stress Prevention Protocol in Preschool Education - P2SEPE developed by Gomes (2012) and validated by Gomes, Pereira and Aires (2013), which seeks to identify attenuating educational practices of inducing situations of stress in children of pre-school education. It is a Likert scale type with 18 items and 4 levels of responses, ranging from zero (never) and three (often). The factor obtained is a value of .862, for KMO index and $X^2=1714.118$; $df=153$; $p=.000$, giving the instrument good analysis of the main components. This instrument has four dimensions of educational practices to deal with stress in childhood, with 55.51% of the explained variance: F1 "Well-being Promotion" with 4 items and explains 7.19% of the variance. Factor 2, called "Cooperation school/family", with 5 items and explains 6.50% of the variance; Items Factor 3 assess

the size “Prevention activities”, with 5 items, which explain 31.45% of the variance; Factor 4 referred to “*Psychoeducational Planning*” with 4 items, explaining 10.35% of the variance. The dimension “*Prevention activities*” is the one that captures higher variance. Regarding the Likert format items, the calculation of internal consistency, which seeks to analyse the extent to which items of the scale are presented as a homogeneous whole, was carried out by determining the Cronbach Alpha index and it was obtained the global value .82, it is, therefore, a scale with a good degree of internal consistency.

In the procedures, the sample collection took place during the last quarter of 2014 with educators / teachers developing teaching activities with children from 2 to 6 years in Portugal, through anonymous and confidential self-report questionnaires. The collection of questionnaires was obtained by subscale EPELSI available in Google Drive and spread by email with the grouping of Directors of the northern, central and southern kindergartens of Portugal. Ethical issues have been met, participation was voluntary and each questionnaire was accompanied by explanatory information of the goals, the search conditions, and the confidentiality and anonymity of the data. We used for data analysis SPSS (Statistical Package for Social Sciences), version 21.0 for MS Windows.

3. Results

The results of the characterization study shows that educators are on average 48 years old ($M = 48.22$; $SD = 8.15$), develop the teaching activity on average 24 years ($M = 24.47$; $SD = 9.37$) in kindergartens, with children from 2 to 6 years old. The levels of academic training most educators have professional degree (73.7%) Master's degree (11.3%) and devote an average of 7 hours a week ($M = 7.26$, $SD = 4.62$) in the Planning Pedagogical Practice.

The variables Planning Pedagogical Practice (PPP) and Years of work experience (YWE) were recoded to establish representative groups of the sample for each variable: the PPP defined three groups; Group 1, the planning course from 0 to 5 hours (48.0%); Group 2 from 6 to 12 hours (41.3%) and Group 3 from 13 to 30 hours (10.7%). In YWE it was also defined by three groups: group 1, ranges from 0-12 years (12.7%); group 2, 13 to 25 years (27.0%) and group 3, between 26 and 46 years (59.7%). The PPP educators dedicated time per week (0 to 5 hours) is 48% and corresponds to the shorter time spent in the planning on the other hand 59.7% of educators have 26 to 36 years of work experience and corresponds to higher seniority.

If we consider the parametric coefficient correlation, Pearson correlation coefficients between the factors (Table 1) shows that are positive and these are also significant ($p \leq .01$), ranging between .283 and .612 for the four dimensions, and therefore they are related. Factor 3 (*Prevention activities*) had stronger correlation with the factor 2 (*Cooperation school / family*) ($r = .612$, $p = .000$) indicating that there is a strong degree of relationship between the dimensions studied. Are also correlated variables Planning Teaching Practice (PPP), Years of work experience (YWE) and Age of Educators (AE) with some of the scale dimensions, it is also positive and significant ($p \leq .01$), ranging between .168 and .310. YWE variable got stronger correlation with the variable Age of Educators ($r = .765$, $p = .000$). The service time varies according to age, meaning, as age increases so the teaching experience.

Table 1: Correlations matrix between EPELSI factors and study variables

Fatores/ Factors	F1	F2	F3	F4	PPP	TSD	IE
F1-Promoção do bem-estar/ Well-being Promotion	1						
F2-Cooperação escola/família/ Cooperation school / family	.387**	1					
F3-Atividades de prevenção/ Prevention activities	.283**	.612**	1				
F4-Planeamento psicoeducativo/ Psychoeducational Planning	.416**	.459**	.401**	1			
Planeamento Prática Pedagógica (PPP)/ Planning Pedagogical Practice (PPP)	-	.168**	.183**	-	1		
Tempo Serviço Docente (TSD)/ Years of work experience (YWE)	-	.263**	.247**	.168**	-	1	
Idade Educadores (IE)/ Age of Educators (AE)	-	.310**	.259**	.170**	.184**	.765**	1

Significance level $p \leq .01$

By ANOVA one-way between groups statistically significant differences were found ($p < .05$) with a 95% confidence interval for the difference between the averages (Table 2).

Table 2: Average (M), standard deviations (SD) of variable PPP, YWE and p-value for the difference between factors evaluated by ANOVA and post-hoc Bonferroni test

Variable	Factors	M (SD)	ANOVA		Post hoc Bonferroni		
			F	p	p(PPP1..)	p(PPP2..)	p(PPP3...)
PPP	F1- Well-being promotion	-	1,483	.229			
	Group 1 (0-5hours)	8,77(2,15)			-	.305	.989
	Group 2 (6-12 hours)	9,18(1,92)			.305	-	1.000
	Group 3 (13-30hours)	9,16(1,83)			.989	1.000	-
	F2- Cooperation school/family		4,65	.010			
	Group 1 (0-5hours)	13,24(1,78)			-	.025	.085
	Group 2 (6-12hours)	13,74(1,34)			.025	-	1.000
	Group 3 (13-30hours)	13,90(1,20)			.085	1.000	-
	F3- Prevention activities		5,20	.006			
PPP	Group 1 (0-5hours)	14,24(1,44)			-	.043	.022
	Group 2 (6-12hours)	14,60(1,00)			.043	-	.768
	Group 3 (13-30hours)	14,88(0,34)			.022	.768	-
PPP	F4- Psychoeducational planning		2,41	.092			
	Group 1 (0-5hours)	8,78(2,26)			-	.103	.765
	Group 2 (6-12hours)	9,33(1,91)			.103	-	1.000
	Group 3 (13-30hours)	9,25(2,29)			.765	1.000	-
					p(YWE1..)	p(YWE2..)	p(YWE3...)
YWE	F1- Well-being promotion		3,97	.020			
	Group 1 (0-12 years)	9,76(2,11)			-	.016	.100
	Group 2 (13-25 years)	8,63(2,13)			.016	-	.595
	Group 3 (26-46 years)	8,98(1,94)			.100	.595	-
	F2- Cooperation school/family		11,20	.000			
	Group 1 (0-12 years)	12,79(2,26)			-	.588	.000
	Group 2 (13-25 years)	13,17(1,60)			.588	-	.002
	Group 3 (26-46 years)	13,86(1,24)			.000	.002	-
	F3- Prevention activities		9,62	.000			
YWE	Group 1 (0-12 years)	13,84(1,97)			-	.166	.000
	Group 2 (13-25 years)	14,28(1,41)			.166	-	.031
	Group 3 (26-46 years)	14,69(0,75)			.000	.031	-
YWE	F4- Psychoeducational planning		4,84	.009			
	Group 1 (0-12 years)	8,14(2,80)			-	.090	.006
	Group 2 (13-25 years)	9,04(2,19)			.090	-	1.000
	Group 3 (26-46 years)	9,30(1,85)			.006	1.000	-

PPP - Planning Teaching Practice (time); YWE - Years of work experience; $p =$ p-value

Statistically significant differences were found in the dimension *Cooperation school/family* ($F(2,42) = 4.65, p = .010$), and in the dimension *Prevention Activities* ($F(1,43) = 5.20, p = .006$). By comparing the differences of the average post-hoc analysis with the Bonferroni correction, it is observed that the averages of pairs are different in group 1 ($M = 13.24, SD = 1.78$) and group 2 ($M = 13, 74; SD = 1.74$). It is the educators who use 6-12 hours a week planning educational practices focused on cooperation school / family. However, the educators who devote 13-30 hours a week in the PPP plan educational practices are focused on *prevention activities*. The dimensions *Well-being Promotion* ($F(4,11) = 1.483, p = .229$) and *Psychoeducational Planning* ($F(4,51) = 2.41, p = .092$) did not present statistically significant differences depending on the PPP time.

It was also found statistically significant differences in the *Well-being Promotion* ($F(4,07)=3.97, p=.020$), *Cooperation school / family* ($F(2,26)11.20, p=.000$), *Prevention activities* ($F(1,36)=9.62, p=.000$) and *Psychoeducational Planning* ($F(4,33)=4.84, p=.009$) and the variable Years of work experience (YWE) are educators with more service time (26-46 years) that have higher averages, except for the *Well-being Promotion* dimension which are educators with less YWE (0-12 years) that have higher averages ($M = 9.76; SD = 2.11$).

Through a t-student test, significant statistically differences were also found in educational practices that work in the Welfare Promotion ($t = -3.68, df = 108, p = .000$) of children and the type of institution, and are private institutions that have higher average values ($M = 15.00; SD = 2.48$) compared to public institutions ($M = 12.80; SD = 3.01$).

4. Discussion

Through studies of correlations and parametric tests between the studied variables and factors, the results of this research show that the perception of Portuguese educators regarding educational practices for prevention of stress are directly related to the cooperation activities between school and family and the educators who devote 6-12 hours a week in the planning of teaching practice that most promote this type of activity. Seeking to know the child's relationship with the family, and regularly establish positive relationships with parents. These data are consistent with studies (Ho & Lin, 2015; Alcantud, 2015) that recognize the importance of interactions and mutual cooperation between parents and teachers in the overall performance of children, favouring a quality childhood education.

Educators who spend more hours in PPP (13-30 hours) focus more on planning prevention activities, to promote the involvement of children in the proposed activities and children who have difficulty concentrating, or remaining in a particular activity. The pedagogical practice planning time has no effect on the promotion of well-being activities and the psychoeducational support activities.

These results can be explained by the specificity of these activities planning, with the educators' expertise, and with the different leadership styles of teachers as shown in the study of (Ho & Lin, 2015), by creating an engaging atmosphere that promotes an environment of empathy and well-being. Also the years of teaching service influences the practices that works in promoting the well-being of children, but it is the educators under 12 years of teaching service that promote well-being in their educational action activities. However, educators with more than 26 years of teaching service plan activities related to

the cooperation school/family, Prevention activities and Psychoeducational planning.

The structural dimensions of educational practices for understanding the stress in childhood appear to be associated with school-family cooperation, prevention activities, promotion of child well-being in inducing situations of stress and psychoeducational planning. When identified the children in stress situations, educational practices may constitute a protective factor to intervene at various levels of the ecological system: personal, family and social, establishing positive interactions, such as the case of the support provided by colleagues and friends, where the child is valued and appreciated as a social member, promoting positive emotional experiences (Mihaela, 2015). Also the peer support gives the child security, affection, sense of belonging, identity and approval, enabling the emotional adjustment and therefore the development of social skills (Trianes, 2004).

The kindergarten teacher is currently an independent and competent professional, able to handle and share different theoretical frameworks and to support the (re) construction of knowledge to (re) think and (re) build their practice. Therefore to assume its role as a pedagogical manager in the current educational context, as a result of their professional recognition, but also for its educational experience will have a greater role in the adaptation of practices to children's needs (Rodrigues & Costa, 2006).

A social change due to socio-economic crisis has increased social inequality and diminished life quality and therefore significant consequences for the well-being and effective enjoyment of children's rights. The educator's role in the construction and implementation of the curriculum in vulnerable and stressful situations becomes essential, for the integrated and sustainable development of the child in a holistic development perspective (Gomes, 2012; Gomes & Pereira, 2007). It is through a concerted educational action, that organizes the environment and routines, establishing a positive social interaction atmosphere that encourages problem solving and plans experiences and / or activities, grounded in the children' interests, that the educator enhances its intervention (Gomes et al., 2013).

The implications of this study show with some evidence the need to adapt the educators' training, but also in continuous training in a life-span perspective, taking into account also the advanced age of the educators, so that these professionals can optimize strategies to help the child cope with the stress-inducing situations. Particularly with regard to planning an educational praxis that fits stress prevention programs.

Given that, studies in this field are still reduced and results should be read carefully. Reflexive meta-analysis study on stress in early childhood show that the investigations in this area are still limited and recent, focusing on the manifestations of stress during activities, in language disorders and in coping strategies used by them (Pereira, Gomes & Aires, 2013).

References

- [1] Alcantud, P. (2015). Grupos interactivos en educación infantil: Primer paso para el éxito educativo. *Intangible Capital*, 11(3), 316-332. doi:10.3926/ic.658
- [2] Belsky, J., & Fearon, R.M.P. (2008). Precursors of attachment security. In J. Cassidy, P.R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical*

- applications (2nd ed.), Guilford, New York, NY, pp. 295–316.
- [3] Blair-Gómez, C. (2013). The biological basis of parent-infant attachment: Foundations and implications for further development. *Informes Psicológicos*, 13(1), 23-40.
- [4] Broström, S., Sandberg, A., Johansson, I., Margetts, K., Nyland, B., Frøkjær, T., Kieferle, C., Seifert, A., Roth, A., Ugaste A., & Vrinioti, K. (2015). Preschool teachers' views on children's learning: an international perspective, *Early Child Development and Care*, 185(5), 824-847. doi: 10.1080/03004430.2014.958483
- [5] Cardoso, L. (2011). Parentalidade e problemas de comportamento em crianças do pré-escolar. (Unpublished master dissertation. Universidade da Madeira, Madeira. Retrieved from <http://hdl.handle.net/10400.13/427>
- [6] Dahlberg, G., Moss, P., & Pence, A. (2003). *Qualidade na Educação da Primeira Infância: perspectivas pós-modernas*. Porto Alegre: Artmed.
- [7] Denham, S. A., Bassett, H. H., Thayer, S. K., Mincic, M., Sirotkin, Y. S., & Zinsser, K. (2012). Observing preschoolers' social-emotional behavior: Structure, foundations, and prediction of early school success. *Journal of Genetic Psychology*, 173, 246–278.
- [8] Dias, Isabel (2009). *Promoção de competências em educação*. INDEA. Instituto Politécnico de Leiria.
- [9] Gomes, R. (2012). *(Re)configuração das práticas educativas na prevenção do stresse na infância*. (Unpublished doctoral dissertation). Aveiro, Universidade de Aveiro. Retrieved from <http://hdl.handle.net/10773/12707>
- [10] Gomes, R., & Pereira, A. (2007). Perspectivas dos Educadores sobre as Situações Indutoras de Stresse: estudo exploratório em contextos educativos para a infância. *Revista Psicologia e Educação*. VI, 2, Dez, 61-72. Universidade da Beira Interior: Covilhã.
- [11] Gomes, R., Pereira, A., & Aires, V. (2013). Práticas educativas para lidar com o stresse na infância (EPELSI): estudo psicométrico. In (Orgs.), Anabela Pereira, Manuela Calheiros, Paula Vagos, Inês Direito, Sara Monteiro, Carlos F. Silva & Ana Gomes. *Atas VIII Simpósio Nacional de Investigação em Psicologia* (pp. 227-233). Aveiro: Universidade de Aveiro.
- [12] Ho, Wan-Xuan, & Lin, Kuo-Wei. (2015). The effect of teacher's leadership style on the outcomes of early childhood education. *The International Journal of Organizational Innovation*. 8(1), 77-87.
- [13] Jackson, Lori (2009). Observing Children's Stress Behaviors in a Kindergarten Classroom. *Early Childhood Research & Practice*, 11(1). Retrieved from <http://ecrp.uiuc.edu/v11n1/jackson.html>
- [14] Mihaela, T. I. (2015). Promoting The Emotional Wellbeing of Preschoolers. *Procedia - Social and Behavioral Sciences* 209, 509 – 513. Vasile Chiş and Ion Albulescu (Eds.). *The 3rd International Conference "Education, Reflection, Development*. Cluj-Napoca: Romania. doi: 10.1016/j.sbspro.2015.11.280
- [15] Murray, Elizabeth, & Harrison, Lind (2005). Children's Perspectives on Their First Year of School: Introducing a New Pictorial Measure of School Stress. *European Early Childhood Education Research Journal*, 13(1), 111-127. Routledge. doi:10.1080/13502930585209591
- [16] Onchwari, Grace, & Keengwe, Jared (2011). Examining the Relationship of Children's Behavior to Emotion Regulation Ability. *Early Childhood Education Journal*, 39(4), 279-284. doi: 10.1007/s10643-011-0466-9
- [17] Pereira, A. (2006). Stresse e Doenças: Contributos da Psicologia da Saúde na Última Década. Isabel Leal (Coord.), *Perspectivas em Psicologia da Saúde* (pp. 145-167). Coimbra: Quarteto Editora.
- [18] Pereira, A., Gomes, R., & Aires, V. (2013). O stresse na infância em contexto educativo: meta análise reflexiva. In Chaleta, M., Grácio, M., Saraiva, M., Vieira, I. et al (Coords.), *Actas da II International Conference "Learning and Teaching in Higher Education" and "Learning Orchestration in Higher Education* (pp. 92-106). Évora: Universidade de Évora.
- [19] Rinaldi, Carlina. (1999). O currículo emergente e o construtivismo social. In Edwards, C.; Gandini, L. & Forman, G. *As Cem Linguagens da Criança: a abordagem de Reggio Emilia na educação da primeira infância*. (pp. 113-122). Porto Alegre: Artmed.
- [20] Rodrigues, G., & Costa, J. (2006). Desenvolvimento Profissional do Educador de Infância em Contexto de Gestão Escolar. In J. Tavares, A. M. S. Pereira, C. Fernandes & S. Monteiro (Orgs.), *Ativação do Desenvolvimento Psicológico: actas do simpósio internacional* (pp. 137-143). Aveiro: Universidade de Aveiro.
- [21] Trianes, M. V. (2004). *O Stress na Infância: prevenção e tratamento*. Porto: Edições ASA.
- [22] Veiga, F. H. (2009). Violência, direitos psicossociais e interações comunicacionais em jovens alunos: Elementos de alguns projectos. *INFAD: Revista de psicologia, International Journal of Developmental and Educational Psychology*, 4, 355-364. Retrieved from <http://hdl.handle.net/10451/5372>

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