

School stress and emotional and academic adjustment in Portuguese children

A prospective study with children during a school transition from 4th to 5th grade

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Introduction

Most Portuguese children undergo a school transition as they move from 4th to 5th grade. This can be considered an "ecological transition" (Rudolph, Lambert, Clark & Kurlakowski, 2001) due to the multiple changes at different levels. The lack of predictability and increased ambiguity associated with these changes place children at particular risk for school related stress (Pereira & Mendonça, 2005).

Three areas of concern can be identified in the event of school transition (Akos & Galassi, 2004): procedures (e.g. change to a larger school building with complicated rules and schedules), academic (e.g. higher pressure from parents and teachers for school success and higher workload) and social (e.g. disruption of the previous relations with colleagues).

Greater stress stemming from school transition can be responsible for a decrease in academic and emotional adjustment. Nevertheless, although some studies (e.g. Alspaugh, 1998; Seidman, Allen, Aber, Mitchell & Feinman, 1994) support the idea that school transition can be considered a critical life event with adverse influences on children's adjustment; others (e.g. Lohaus, Elben, Ball & Klein-Hessling, 2004; Nottelmann, 1987) support a more optimistic view of school transition, reporting no differences or even improvements in the well-being of students.

Objectives

- To analyse longitudinally the academic and emotional adjustment of Portuguese children during a transition from 4th to 5th grade.
- To examine the school stress profile of Portuguese children submitted to a school transition from 4th to 5th grade.
- To analyse the role of school stress in academic and emotional adjustment of Portuguese children after a school transition from 4th to 5th grade.

Method

Sample

Participants were 236 Portuguese children (115 girls and 121 boys). The children were all Caucasian, from different geographic areas and from different socio-economic status.

Measures

Constructs	Scales	Items	Respon.
School Stress			
School Stress Survey (SSS) (Wenz-Gross, Spierstein, et al. 1997; Port. Vers. Pereira & Mendonça, 2005)			
Academic Stress		15 items (5 point scale)	Children
Teacher/Rules Stress		20 items (5 point scale)	
Social Stress		14 items (5 point scale)	
Adjustment			
Children Behavior Checklist (CBCL) (Achenbach, 1991a) Port. Vers. Fonseca et al., 1995)			
Emotion Behavior Problems	Total Problems Scale	118 items (5 point scale)	Parents
Teachers Report Form (TRF) (Achenbach, 1991b) Port. Vers. Fonseca et al., 1995)			
Academic Compet.	Total Problems Scale	118 items (5 point scale)	Teachers
	Academic Competence Scale	3 items (5 point scale)	
Self-Perception Profile for Children (SPPC) (Harter, 1995; Port. Vers. Faia & Fontaine, 1995)			
Self-concept	Academic Self-Concept	6 items (4 point scale)	Children
	Global Self Esteem	6 items (4 point scale)	

Procedures

The assessment was conducted in two stages: before (4th grade) and after a school transition (5th grade). Questionnaires were administered to children in the presence of an interviewer. Parents and teachers filled the questionnaires autonomously.

Results

1. Differences in the adjustment of Portuguese children before and after school transition from 4th to 5th grade

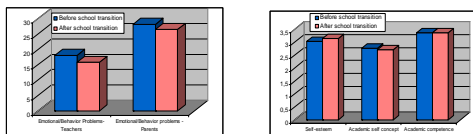


Fig. 1 and 2. Mean Total Emotional/Behavior Problems perceived by teachers and Academic Competence (TRF) Total Emotional/Behavior Problems perceived by parents (CBCL), Self-Esteem and Academic Competence (SPPC) before school transition and after school transition.

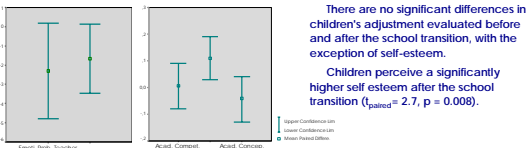


Fig. 3. Mean of Academic Stress, Teacher/Rules Stress, Social Stress Scales of the School Stress Survey (SSS) before and after school transition for the Total Emotional/Behavior Problems perceived by teachers and Academic Competence (TRF), Total Emotional/Behavior Problems perceived by parents (CBCL), Self-Esteem and Academic Competence (SPPC).

2. What is the profile and characteristics of School Stress of Portuguese children submitted to a school transition from 4th to 5th grade?

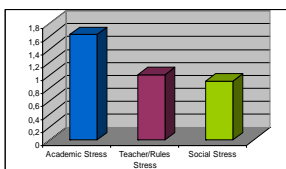


Fig. 4. Mean of Academic Stress, Teacher/Rules Stress, Social Stress Scales of the School Stress Survey (SSS).

Results show that after a school transition from 4th to 5th grade children perceive significantly higher mean levels of stress in the academic domain compared to the teacher/rules and social stress domains ($F_{2, 472}=171.9, p<0.001$).

Table 2. Most frequent stress items (Percentage)

Items	%	Items	M (%)
Being asked questions in class when I don't know the answer	89	Being pressured to smoke, drink alcohol, or use drugs	3.7 (12)
Missing my friends from elementary school	85	Getting poor grades on my report card	3.4 (54)
Having trouble with my homework	81	Having something stolen	3.1 (43)
Doing work that is too hard	80	Being afraid of weapons or violence in school	2.3 (44)
Being called names	79	Failing a test	3.1 (72)
Forgetting to bring material to class	75	Losing my school work	3.1 (42)
Having trouble saying the right thing in class	70	Handing in work late	2.7 (46)
Having to do too many assignments at one time	70	Being punished by a teacher	2.7 (33)
Having trouble working by myself	68	Missing my friends from elementary school	2.7 (85)
Being bothered by older kids	60	Being treated unfairly by a teacher	2.6 (32)

The more frequent items belong to the academic domain. However, the stress events that children evaluate as more disturbing belong to the teacher/rules domain, followed by the academic domain.

3. Is school stress a predictor of academic and emotional adjustment of Portuguese children after a school transition from 4th to 5th grade?

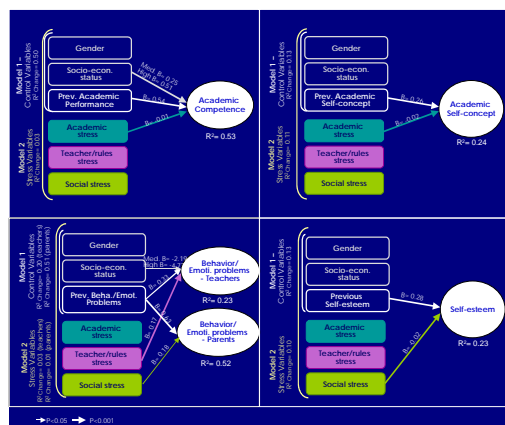


Fig. 4, 5, 6 and 7. Multiple regression of socio-demographic variables and adjustment before school transition (Model 1) and academic stress, teacher rules stress and social stress (Model 2) on the Total Emotional/Behavior Problems perceived by teachers and Academic Competence (TRF), Total Emotional/Behavior Problems perceived by parents (CBCL), Self-Esteem and Academic Competence (SPPC) after school transition.

Results show that school stress at the 5th grade is a significant predictor of academic and emotional adjustment, controlling for the effect of prior adjustment.

School stress is an important predictor of global self-esteem and academic concept.

Stress perceived in different domains affect different indicators of child adjustment. Namely, academic stress is a significant predictor of academic performance and academic self-concept, teacher/rules stress is positively associated with emotional and behavior problems evaluated by teachers, and social stress is negatively related to global self-worth and to behavior problems evaluated by teachers.

Discussion

The longitudinal data relative to academic and emotional adjustment of children before and after a school transition from 4th to 5th grade suggests that most of the children handle successfully with this transition. Also, the positive changes in global self-esteem support the idea that school transition can be a good experience for many children.

In this perspective, school transition poses both challenges and opportunities for students (Akos & Galassi, 2004), for example, more freedom and the possibility to make new friends.

After a school transition from 4th to 5th grade children the domain associated with higher levels of stress is the academic domain. Children perceive difficulties managing school academic demands in two ways: due to their difficulty and because they imply the resolution of simultaneous tasks, when the students still lack auto-regulation and organization abilities (Pereira & Mendonça, 2005). The academic stress is also the domain which contains the most frequent stress items.

However the higher disturbing events are related to pressure for deviant behavior, violence in school, breaking class rules and relation problems with the teacher. Some academic stress events are also punctuated as high disturbing events.

Finally, congruent with other research results on the impact of school stress on children's adjustment (Wenz-Gross, Spierstein, Untch & Widaman, 1997), we found that school stress at the 5th grade predicts significantly academic and emotional adjustment, controlling for the effect of prior adjustment.

The fact that stress perceived in different domains affect different indicators of child adjustment pinpoints the importance of considering the varied stress domains in the evaluation and in the development of school stress reduction programs.

References

Achenbach, T.M. (1991a). *Manual for the Child Behavior Checklist and 1991 Profile*. Burlington, VT: University of Vermont, Department of Psychiatry.

Achenbach, T.M. (1991b). *Manual for the Teachers Report Form and 1991 Profile*. Burlington, VT: University of Vermont, Department of Psychiatry.

Akos, P. & Galassi, J.P. (2004). Middle and High School Transitions as viewed by students, parents and teachers. *Professional School Counseling*, 7(4), 212-222.

Alspaugh, J. W. (1998). Achievement loss associated with the transition to middle school and high school. *Journal of Educational Research*, 92 (1), 20-26.

Faia, L. & Fontaine, A.M. (1995). Adaptação do Self-Perception Profile for Children (SPPC) de Harter a crianças e pré-adolescentes. *Psicologia*, 10 (3), 129-142.

Fonseca, A. C., Simões, A., Rebelo, J. A., Ferreira, J. A., e Cardoso, F. (1995). O inventário de comportamentos da criança para professores - Teachers Report Form (TRF). *Revista Portuguesa de Pedagogia*, 29 (2), 81-102.

Fonseca, A.C., Simões, A., Rebelo, J. A., Ferreira, J. A. G., & Cardoso, F. (1995). Um inventário de competências sociais e de problemas de comportamento em crianças e adolescentes - o Child Behavior Checklist de Achenbach (CBCL). *Psicologia*, 12, 55-78.

Harter, S. (1985). The perceived competence scale for children. *Child Development*, 53, 87-97.

Lohaus, A., Elben, C. E., Ball, J., & Klein-Hessling, J. (2004). School transition from elementary to secondary school: changes in psychological adjustment. *Educational Psychology*, 24 (2), 161-173.

Nottelmann, E.D. (1987). Competence and self-esteem during transition from childhood to adolescence. *Developmental Psychology*, 23 (3), 441-450.

Pereira, A. I. F. & Mendonça, D. (2005). O stress escolar na transição de escolas do 1º para o 2º ciclo do ensino básico: a versão portuguesa do questionário de avaliação do stress escolar. *Psicologia: Educação e Cultura*, 9(1), 89-127.

Seidman, E., Allen, L., Aber, J.L., Mitchell, & Feinman, J. (1994). The impact of school transitions in early adolescence on the self-system and perceived social context of poor urban youth. *Child Development*, 65, 507-522.

Wenz-Gross, M., Spierstein, G. N., Blozis, S., e Parker, R. (in press). The role of stress and social support in the adjustment of students in Middle School: a longitudinal study. Manuscrito submetido para publicação.

Wenz-Gross, M., Spierstein, G. N., Untch, A. S., e Widaman, K. F. (1997). Stress, social support, and adjustment of adolescents in Middle School. *Journal of Early Adolescence*, 17 (2), 129-151.

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