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Abstract

- The quality of both mother-child and father-child relationships predicts child academic achievement. However, few studies have considered both parents simultaneously. Accordingly, the present study examined whether the quality of interactions with each parent, assessed in Grade 1, makes a unique contribution to the prediction of children's academic skills in Grade 1 and Grade 2.
- 79 families participated in this study. The quality of mother-child and father-child interactions was assessed with the Mutually Responsive Orientation Scale, and children's academic skills with the WIAT-II.
- The results showed that :
 - ✓ The quality of mother-child interactions was generally positively associated with academic skills; in contrast, associations were sometimes negative when considering father-child interactions.
 - ✓ The quality of father-child interactions negatively predicted mathematics skills in G2, above and beyond the contribution of mother-child interactions.
 - ✓ The links between the quality of parent-child interactions and children's academic skills were generally more convincing among relatively less educated parents.

Introduction

- There is general agreement that school entry is one of the most significant developmental milestones of early childhood, with consequences for academic and social adjustment throughout childhood (Welsh et al., 2001).
- One factor that has been found meaningful in the prediction of academic achievement is the quality of both mother-child and father-child relationships (e.g., Fraley, Roisman, & Haltigan, 2013).
- However, the majority of studies have focused on samples of either mothers or fathers, and therefore it is largely unknown whether each relation has unique predictive power of children's achievement, above and beyond the other, although such unique effects have been found with other outcomes (e.g., El-Sheikh & Buckhalt, 2003; Kochanska & Kim, 2013).

Aims of the study: The objective of this study is to examine whether the quality of interactions with each parent at the time of school entry makes a unique contribution to the prediction of academic skills in two core domains: mathematics and reading.

Method

Participants

- 79 families (43 girls/36 boys)
- Family income: median = \$80,000 to \$99,000
- Maternal education: median = 16 years
- Paternal education: median = 16 years
- Mothers (80.4%) and fathers (72.5%) were mostly **Caucasian**.



Procedures

- 2 home visits when children were in
 - First grade (G1): M = 7.1 years, SD = 3.74
 - Second grade (G2): M = 7.9 years, SD = 3.63

Measures

The quality of mother/child (mother MRO) and father/child (father MRO) interactions was assessed in G1 with the Mutually Responsive Orientation scale (MRO; Aksan et al., 2006), coded independently by two coders from videotaped home-based free-play interactions.

Academic skills were assessed in G1 and G2 with the Mathematical Operations and Reading subscales of the Wechsler Individual Achievement Test-II (WIAT, Wechsler, 2002).

Results

	Mother education	Father education	Mother MRO	Father MRO	Math G1	Reading G1	Math G2	Reading G2
Mother education		0,607**	0,315*	-0,114	0,318**	0,169	0,334**	0,128
Father education			0,281*	-0,019	0,313**	0,086	0,369**	0,155
Mother MRO				0,351*	0,188	0,280*	0,326*	0,308*
Father MRO					-0,086	-0,096	-0,295	-0,206
Math G1						0,389**	0,796**	0,227
Reading G1							0,406**	0,546**
Math G2								0,345**

* p < .05; ** p < .001

Mother MRO is positively associated with academic skills. In contrast, **father MRO** tends to be negatively associated with academic skills, particularly with math G2.

A regression analysis (below) indicated that **father MRO** independently but negatively predicted child mathematics skills in G2, above and beyond the contribution of mother MRO.

	Beta (β)	Sig
Mother MRO	0,301	0,080
Father MRO	-0,384	0,027

Exploratory analyses

The links between the quality of parent-child interactions and academic skills varied according to parental education:

- When fathers were relatively **more educated**, there was no significant link between father MRO and child academic skills.
- When fathers were relatively **less educated**, there were significant but negative links between father MRO and child academic skills in G2.

	Paternal education	
	Less educated	More educated
Math G1	-0,213	0,095
Reading G1	-0,359	0,026
Math G2	-0,440*	-0,069
Reading G2	-0,544**	0,408

* p < .05; ** p < .001

- When mothers were relatively **more educated**, there was no significant link between mother MRO and academic skills.
- When mothers were relatively **less educated**, there were positive links between mother MRO and child academic skills.

	Maternal education	
	Less educated	More educated
Math G1	0,320	-0,074
Reading G1	0,479**	-0,062
Math G2	0,188	0,233
Reading G2	0,294	0,113

**p < .001

Discussion

- These findings suggest that higher-quality mother-child interactions are related, as expected, to better academic skills in the first two years of schooling.
- Surprisingly, the results also appear to suggest that higher-quality father-child interactions relate to worse academic skills.
- One may speculate that children with a more externalizing, impulsive behavioral style may have difficulty with school, while eliciting more involvement from their fathers, and consequently develop a high-quality father-child relationship.
- All links, expected and counter-intuitive, were more pronounced for children of relatively less educated parents. This needs replication.

Limitations and future studies : The sample size and the generally high levels of parental education restrict the generalization of the present results, and suggests that this study should be reproduced with a larger and more diverse population.

References

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