

The **Li** lab



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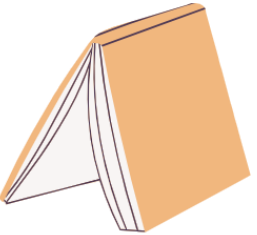
# Promoting educational and health equity during childhood: insights from longitudinal protective and risk factors

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Tier II CRC on school readiness, inclusion and social adjustment

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**Investigating risk and protective factors for social and academic adjustment among vulnerable children**



**Axe 1**



**Informing on the developmental mechanisms for early cognitive and mental health**



**Axe 2**



**Axe 3**



**Advancing knowledge on the impact of social policies and services for families with young children**

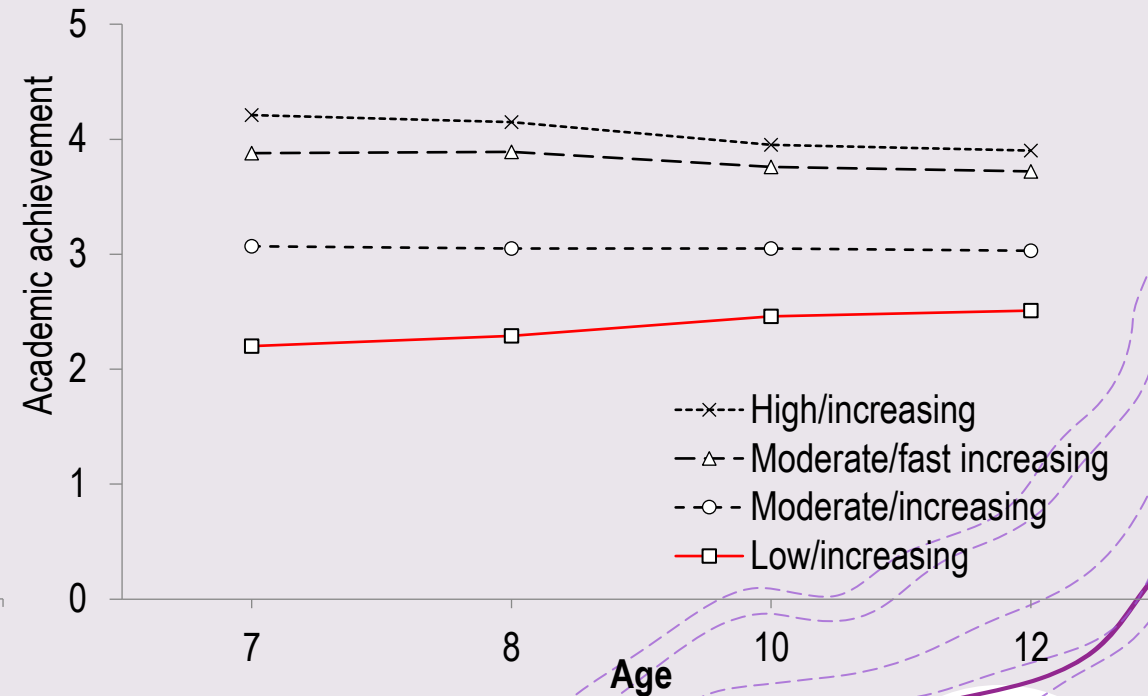
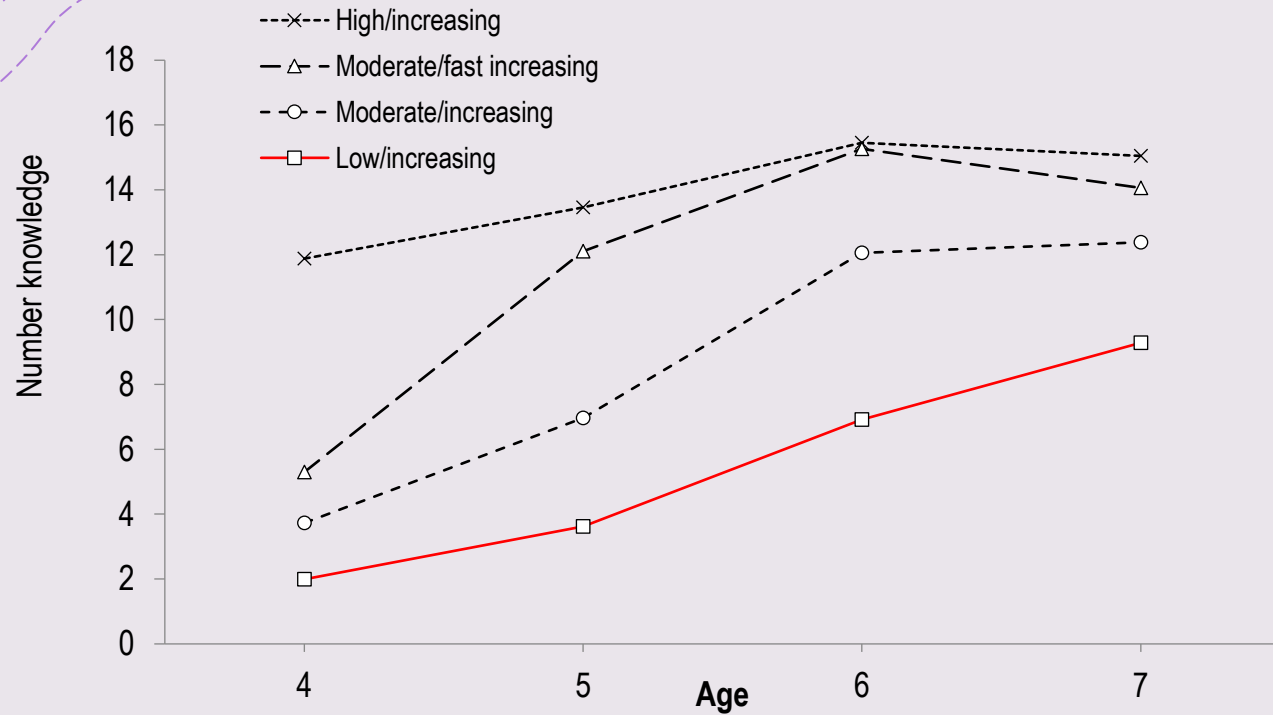


**Why academic success matters?**

# The sustaining role of early childhood



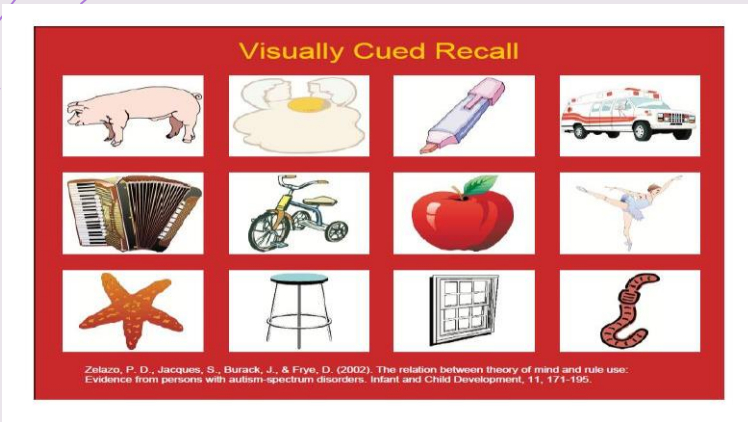
# The sustaining role of early childhood





# Who are the children in the low trajectory?

↓ Memory-span at 41 months



C) 3 items :

1 bicyclette  
2 coquelicot  
3 ananas

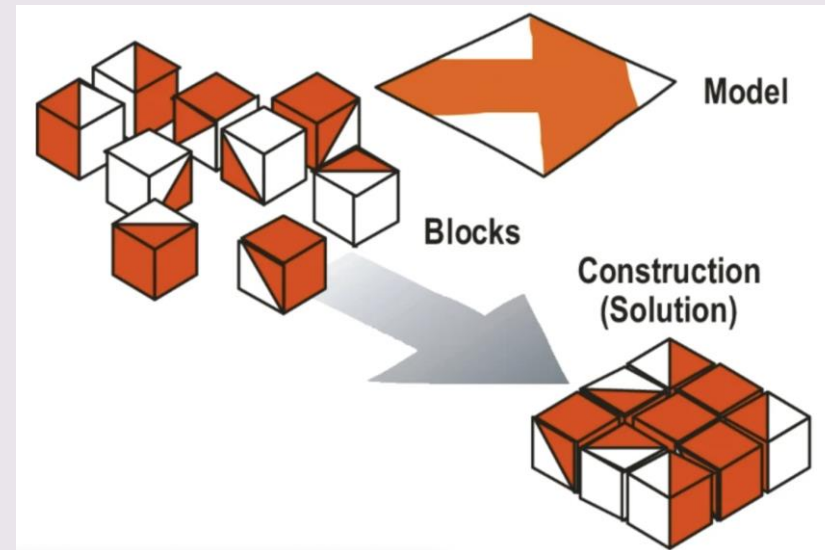
1		2	
bicyclette		coquelicot	
	3		
	ananas		

D) 4 items :

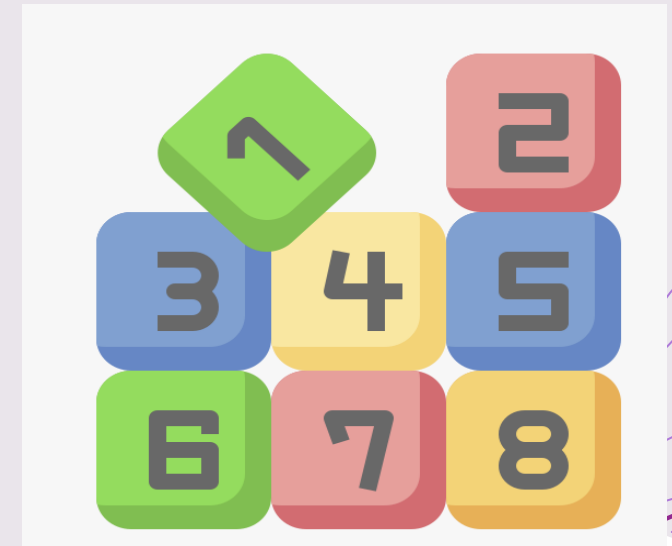
1 homard  
2 ordinateur  
3 télévision  
4 coquillage

2		3	
ordinateur		télévision	
		4	
		coquillage	
	1		
	homard		

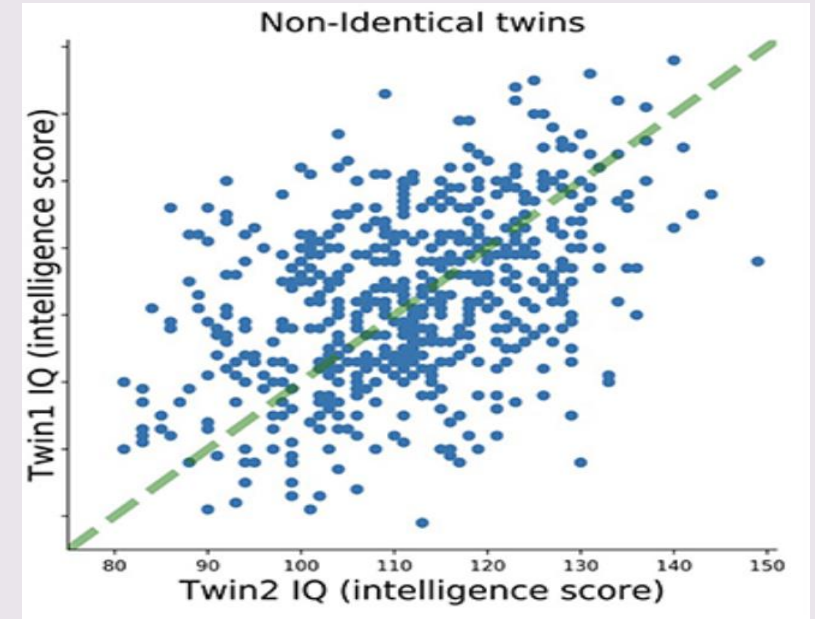
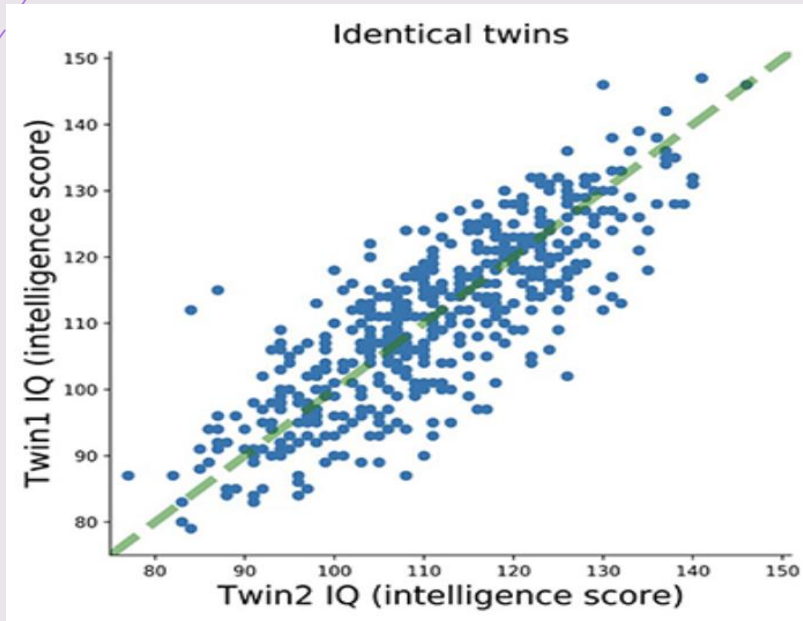
↓ Visual-spatial skills at 41 months



↓ Basic cognitive-related knowledge at 29 months

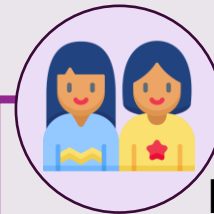


# Twin Resemblance



## Monozygotic Twins (Identical)

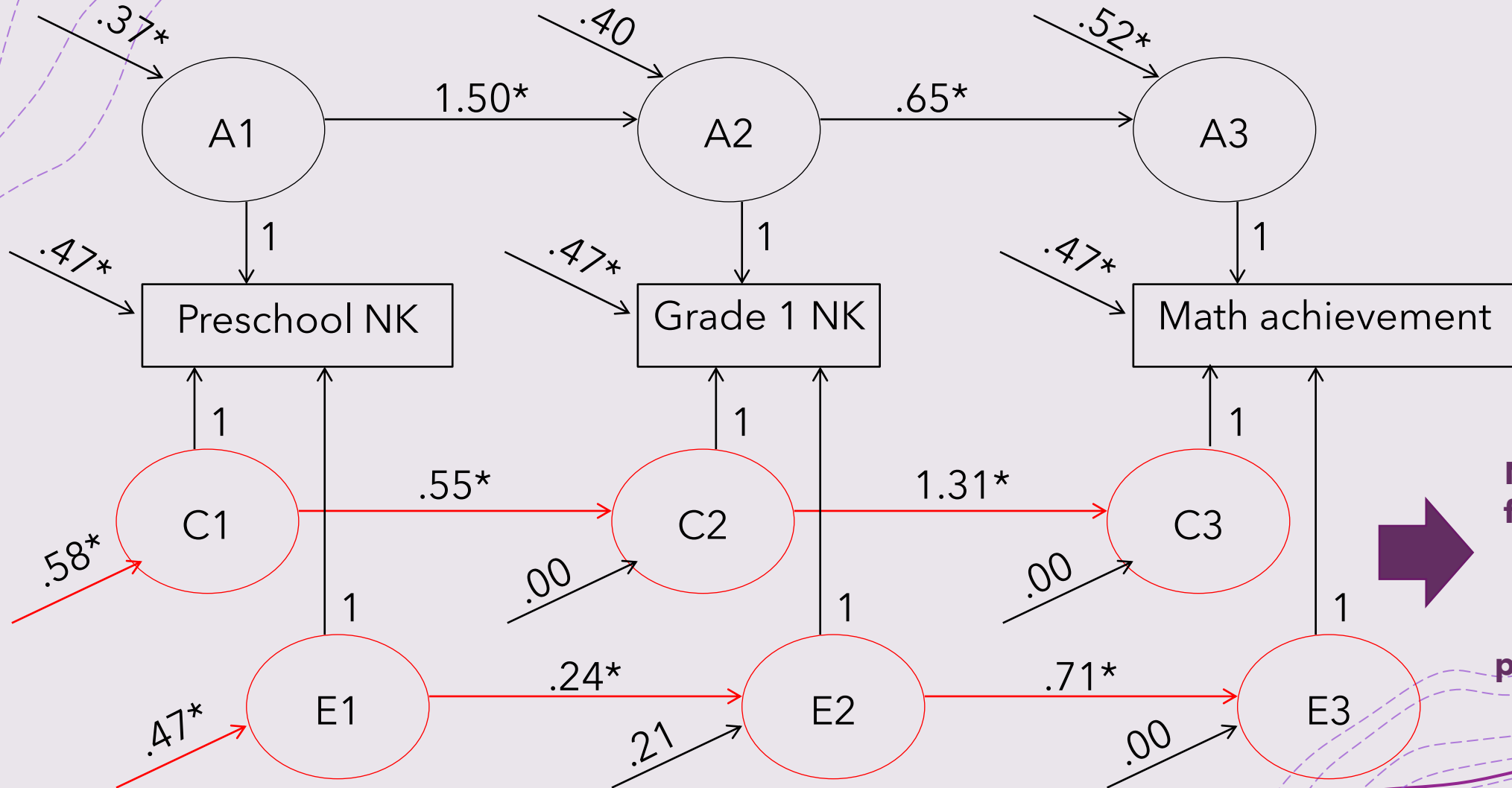
- Share **all** of their genetic influences
- All of their shared environmental influences
- Each child has their own nonshared (unique) environmental influences



## Dizygotic Twins (Non-identical)

- Share **half** of their genetic influences
- All of their shared environmental influences
- Each child has their own nonshared (unique) environmental influences

# The sustaining role of early childhood



**No contribution from the shared and unique environment after the preschool period**



**Propensity to  
succeed :**  
**All children will start  
school *ready to learn***



The Goals 2000: Educate America Act (P.L. 103-227)

# The propensity to succeed

## Kindergarten school readiness

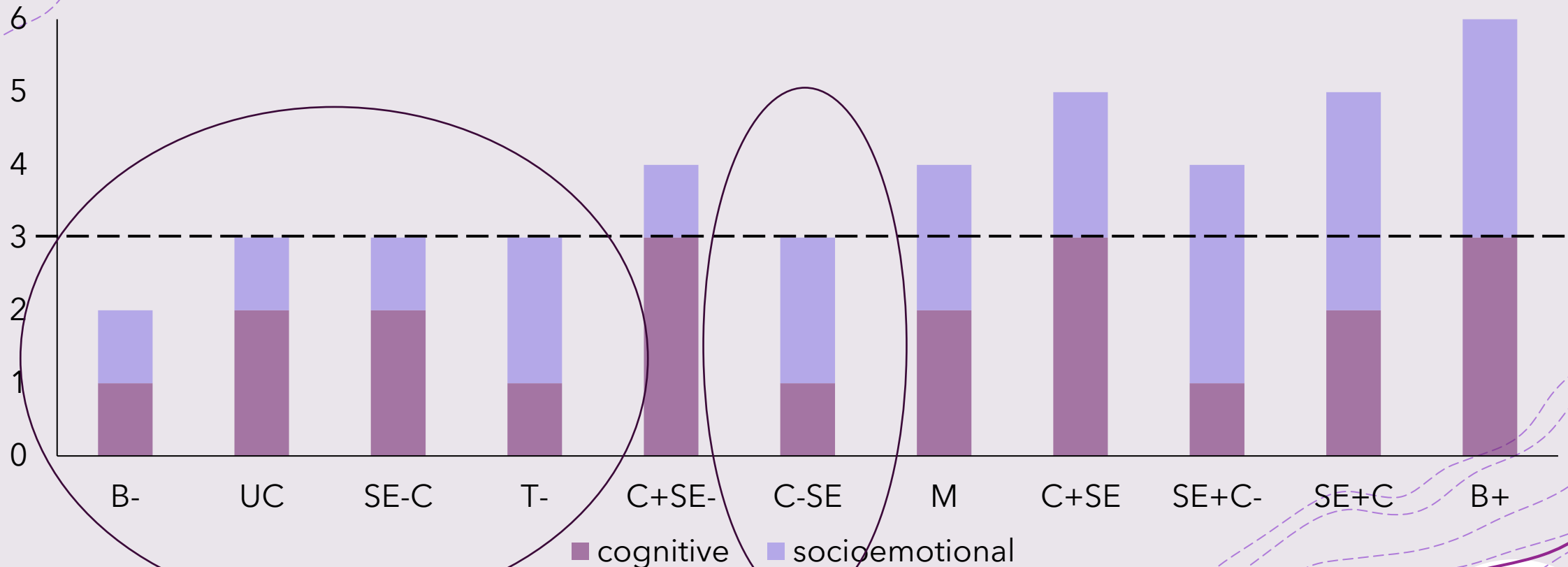
**TABLE 3** Adjusted Standardized Regression Coefficients Depicting Associations Between Kindergarten School Readiness Skills and Outcomes at Age 17

	Global Achievement		Dropout Risk		School Connectedness		Anxiety		Substance Abuse		Physical Activity	
	$\beta$	<i>P</i>	$\beta$	<i>P</i>	$\beta$	<i>P</i>	$\beta$	<i>P</i>	$\beta$	<i>P</i>	$\beta$	<i>P</i>
No. knowledge	.17	>.001	-.20	>.001	-.01	.764	.024	.337	.06	.206	.01	.888
Receptive vocabulary	.04	.834	-.03	.162	.06	.264	-.11	.007	-.04	.445	.01	.078
Classroom engagement	.17	.004	-.20	.002	.15	.005	-.08	.098	-.21	>.001	.09	.047
<i>R</i> <sup>2</sup>	.30	—	.35	—	.05	—	.10	—	.06	—	.10	—

Models are adjusted for child sex, low birth wt, kindergarten nonverbal IQ, emotional distress and physical aggression, parental involvement, maternal depression and immigrant status, family configuration, and socioeconomic status.

# The propensity to succeed

## Profiles of Kindergarten school readiness



# Childcare as an opportunity factor for long-term academic success?

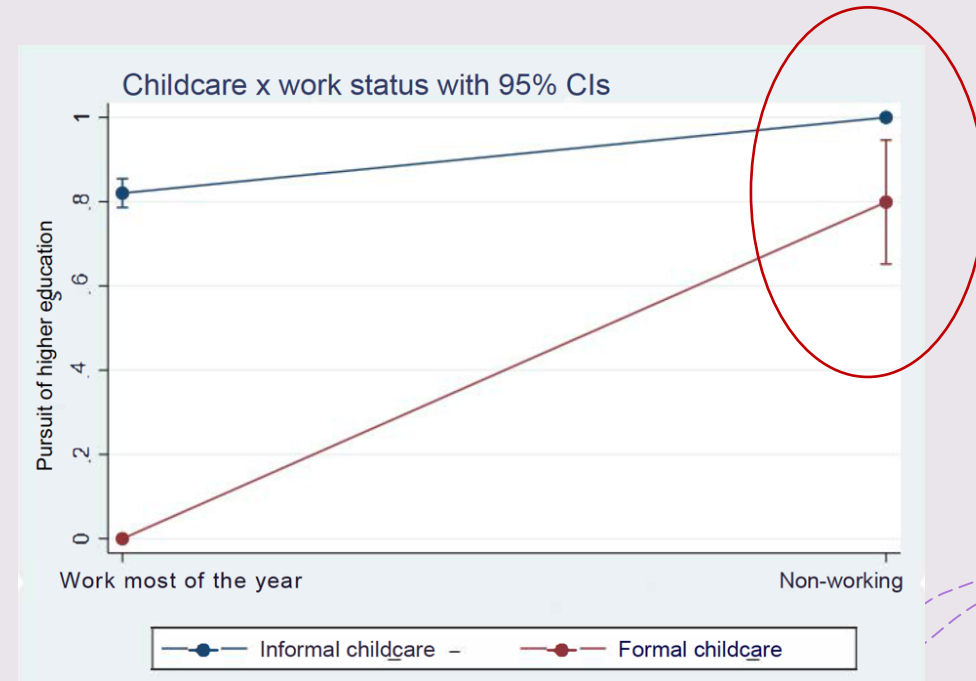
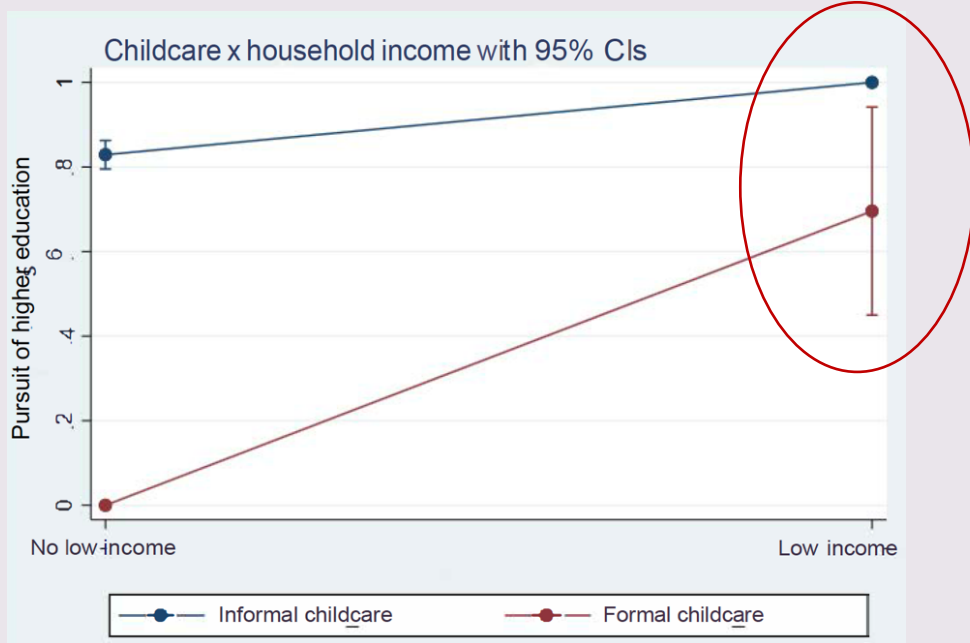


**Children being cared for in licensed daycare center or family daycare**



**Children being cared for in their own home by a non-relative (ex., nanny) or being cared for by a relative (ex., grand-parent)**

# Childcare as an opportunity factor for long-term academic success





# Creation of an affordable Canada-wide childcare system

**Bill C-35, An Act  
respecting early learning  
and child care in Canada**



# Parental leave as an opportunity factor for improving parent and child mental health

**Benefit parents and family wellbeing**



**Improve parent mental health?**



**Engage parents in child rearing**



**Long-term outcomes?**



# Transition to parenthood : A stressful period

## POSTPARTUM DEPRESSION

**10-15 %**

of women will experience this condition between a week and a month after delivery

## POSTPARTUM OCD

**3-5 %**

of new mothers will experience symptoms of postpartum obsessive compulsive disorder

## POSTPARTUM ANXIETY

**9 %**

of women experience postpartum post-traumatic stress disorder following child birth

# Parental leave in Quebec

Adoption of the *Act respecting parental insurance*

The Québec Parental Insurance Plan came into effect

1997-  
2001

2001

2004-  
2005

2006

Negotiations  
between Quebec  
and Ottawa

Canada-Québec Agreement: a crucial  
step for a unique plan in Québec and  
Amendment to the *Act respecting  
parental insurance of 2001*

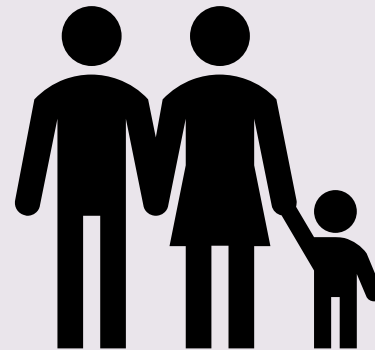
# Parental leave and parent mental health

**Single mothers :  
control group**



**No change in the  
proportion of  
maternal mental  
health diagnosis after  
2006**

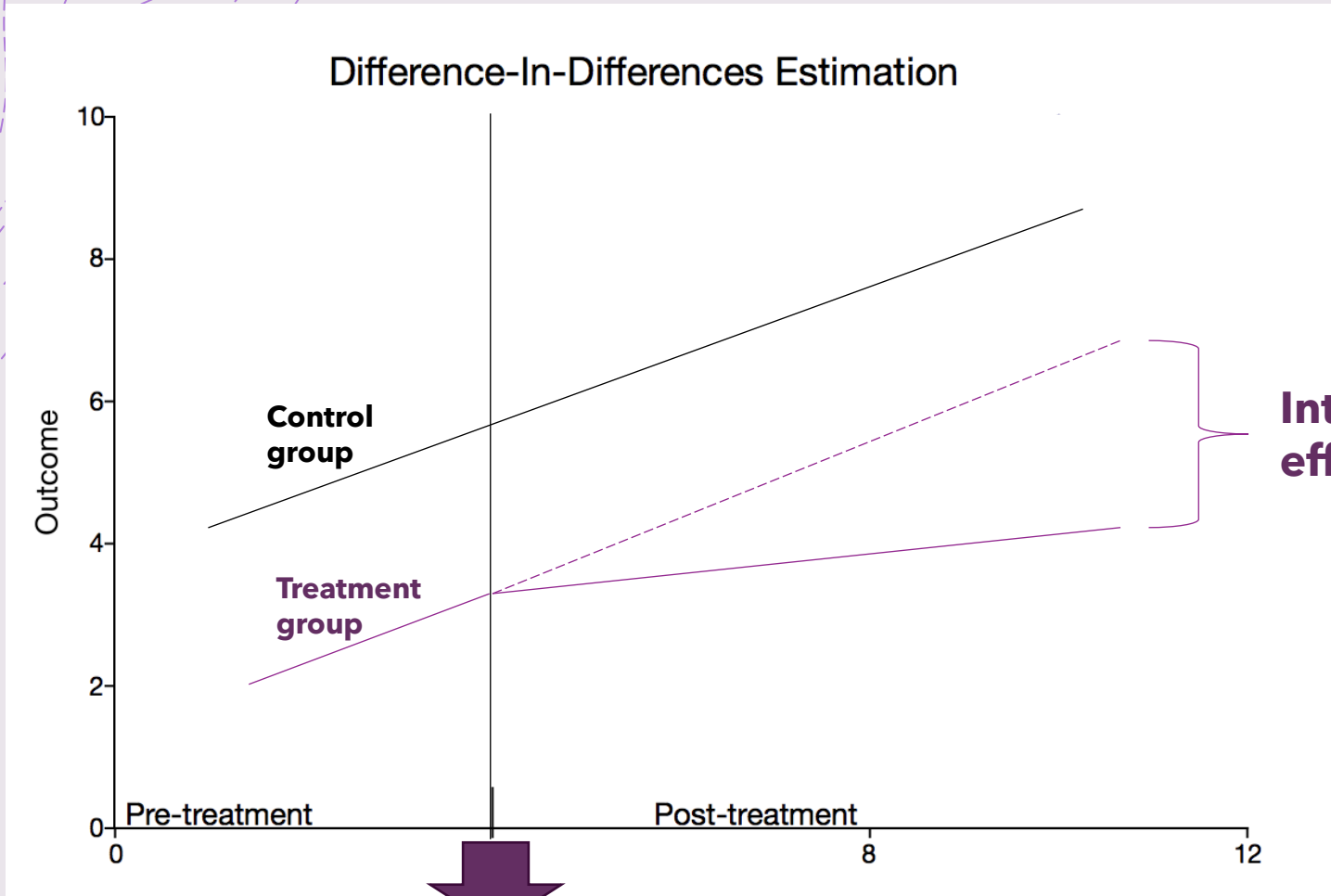
**Mothers with a partner:  
treatment group**



**Decrease in the  
proportion of  
maternal mental  
health diagnosis after  
2006**



# Parental leave and maternal mental health



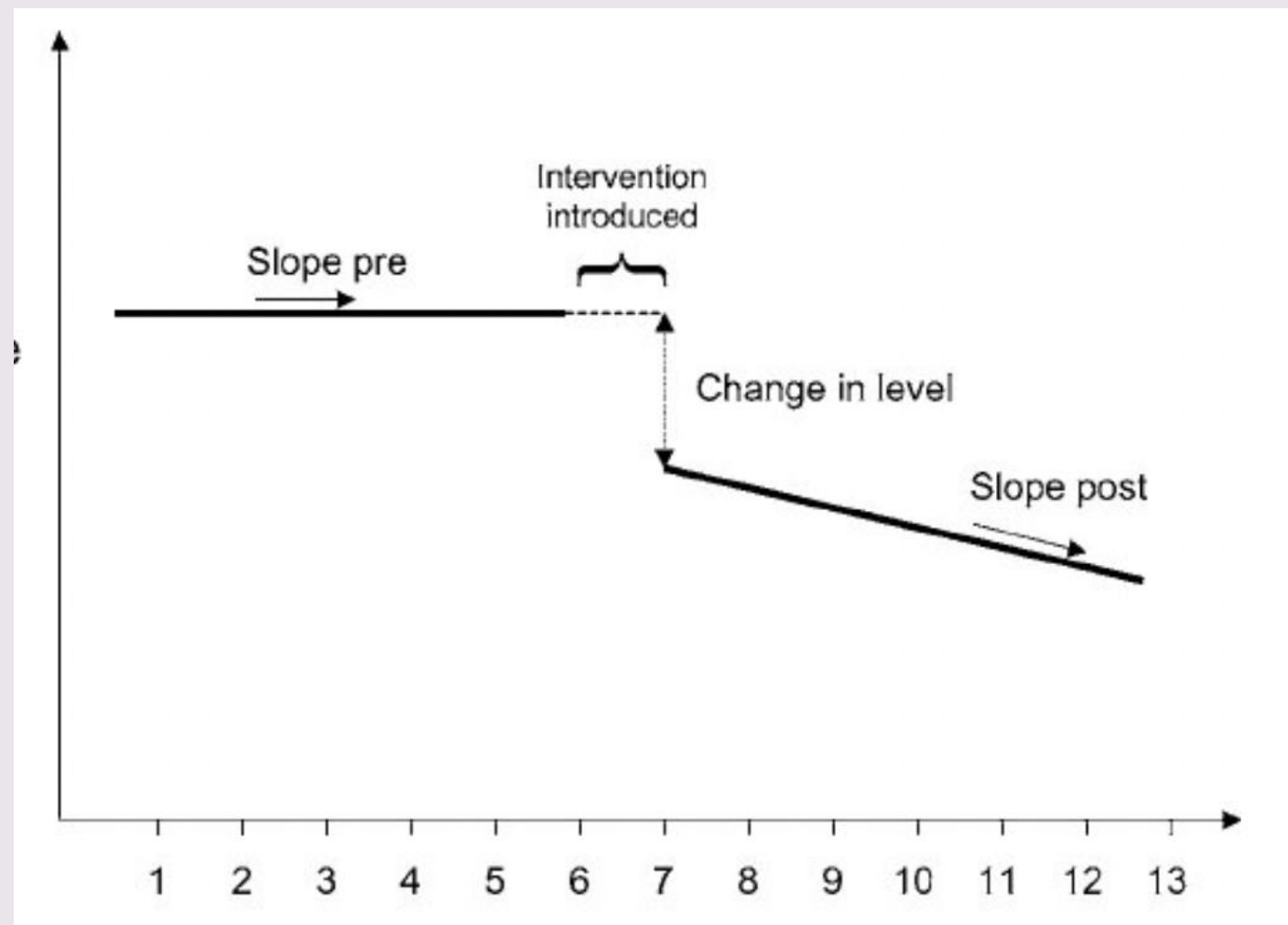
**Intervention effect**

**Intervention : policy implementation in 2006**

# Parental leave and father mental health



Interrupted time series analysis to capture the effectiveness of a public population-level policy



A photograph of a woman with dark curly hair, wearing a white ribbed sweater, holding a baby in a white long-sleeved shirt. They are both looking towards the right. The background is a soft, out-of-focus white. The text 'Parental leave and child mental health' is overlaid in the center in a bold, white, sans-serif font. There are decorative purple dashed lines and white circles in the corners of the image.

# Parental leave and child mental health

# Separation anxiety : the crossroad of adaptation and illness

- + First manifestations : 6-12 months
- + Developmentally appropriate up to age 6



a. Severity continuum of separation anxiety behaviors

<b>Average Difficulty Parameter</b>	<b>Separation Anxiety Behaviors</b>
2.53	Reported illness when separation anticipated
2.46	Distress when anticipating separation
2.12	Worry about being left home without caregiver
1.99	Separation nightmares
<hr/> <b>95<sup>th</sup> percentile</b> <hr/>	
1.64	Worry about disaster separating child from caregiver
1.53	Worry about caregiver's safety/return home
1.32	Avoided going places without caregiver
1.01	Fearful of going to sleep without caregiver

# Attachment theory

- + **Maternal employment early after childbirth may pose a risk for separation anxiety**





# Transition to parenthood and SES

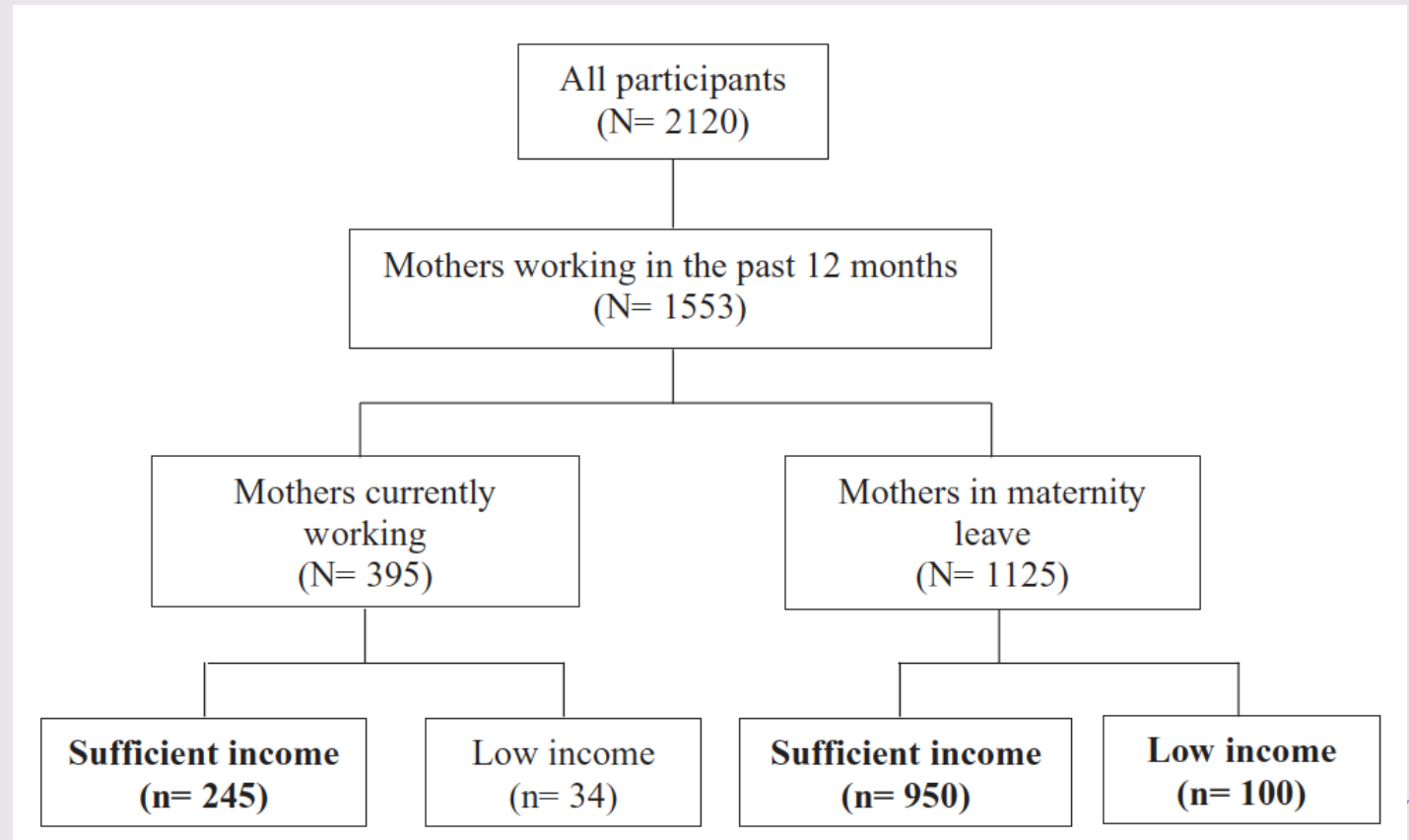
Type of Benefits	Basic Plan	Special Plan
<b>Maternity or exclusive to the person for pregnancy or childbirth</b>	18 weeks 70% of earnings*	
<b>Paternity or exclusive to the parent who did not give birth</b>	5 weeks 70% of earnings*	
<b>Parental shareable between the parents</b>	32 weeks <ul style="list-style-type: none"><li>■ First 7 weeks: 70% of earnings*</li><li>■ Next 25 weeks: 55% of earnings*</li></ul> <b>4 additional benefit weeks</b> at 55% of earnings* once 8 shareable parental benefit weeks have been paid to each parent.	25 weeks 75% of earnings* <b>3 additional benefit weeks</b> at 75% of earnings* once 6 shareable parental benefit weeks have been paid to each parent.

# Economic perspective

- + **Maternal employment brings economic and social resources that can benefit children**



# Parental leave as an opportunity factor for child mental health



# Separation anxiety and related measures in QLSCD

Parenting  
(ex., coercion,  
overprotection)

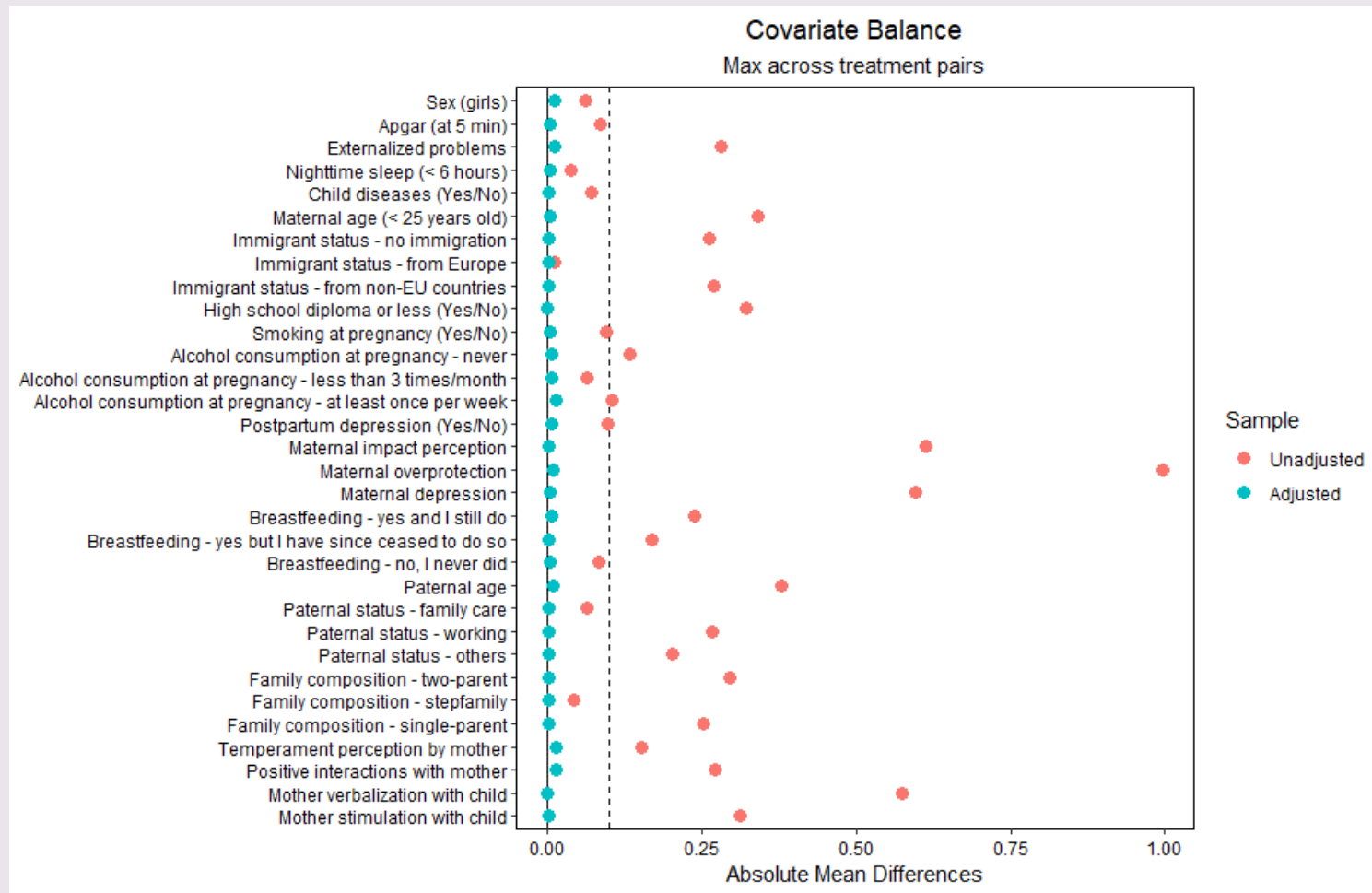
Life events  
(ex., divorce, death)



- Externalizing behaviors
- Co-sleeping with parent
- Nighttime sleep

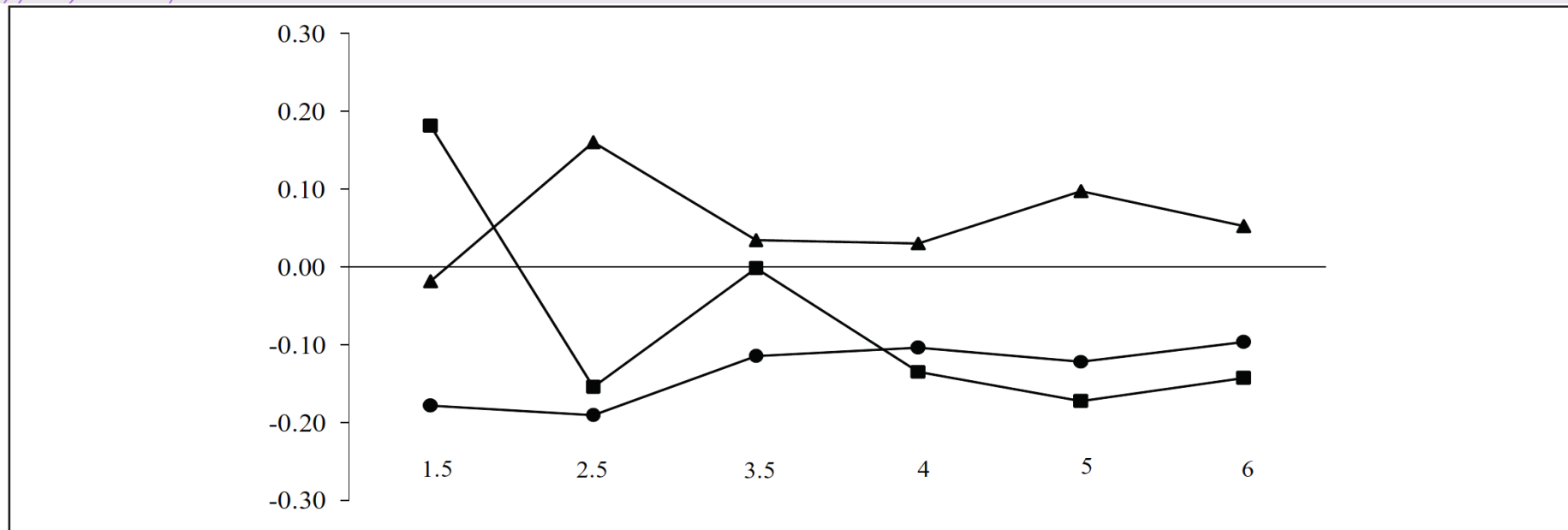
- Parent rating of separation anxiety (17 months to age 6)
- react badly when a parent is away
- not want to sleep alone
- cling to adults and is too dependent

# Parental leave as an opportunity factor for child mental health





# Parental leave as an opportunity factor for child mental health



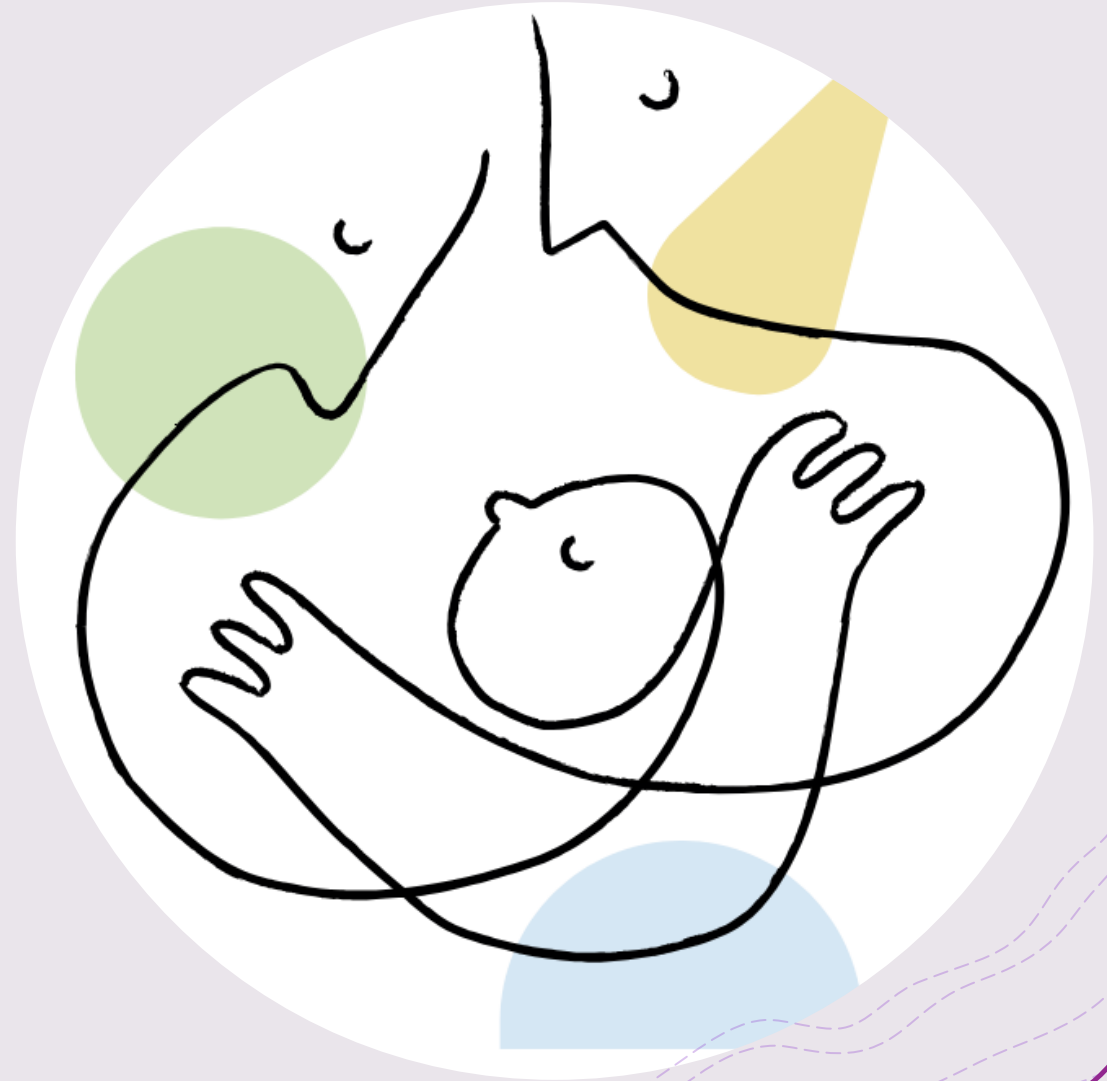
**Figure 3.** Patterns of Separation Anxiety Based on Factorial Scores: ■ Children of Mothers in Maternity Leave With Low Income ( $n = 100$ , 7.7%), ● Children of Mothers in Maternity Leave With Sufficient Income ( $n = 950$ , 73.4%), and ▲ Children of Working Mothers ( $n = 245$ , 18.9%).

Source. Data courtesy of the Quebec Institute of Statistics.

# Next steps

## Family conditions during parental leave :

- + Part-time working status
- + Low educational attainment
- + Having an immigrant status
- + Belonging to a visible minority
- + Low-income status
- + Single parent











# The early learning and social adjustment research lab

<https://www.lillab.org/>

