

# A dyadic analysis of violence exposure through parental disciplinary practices in a population-based cohort

Mariana Amorim, Milton Severo, Sílvia Fraga

*EPIUnit - Instituto de Saúde Pública, Universidade do Porto, Portugal*

27/09/2024

*This study was financed by national funds through the FCT - Foundation for Science and Technology, I.P. (Ref. 2022.06837.PTDC; DOI 10.54499/2022.06837.PTDC; UIDB/04750/2020; DOI 10.54499/UIDB/04750/2020; LA/P/0064/2020; DOI 10.54499/LA/P/0064/2020).*

**WCE**

WORLD CONGRESS OF EPIDEMIOLOGY 2024



# Background and Aim

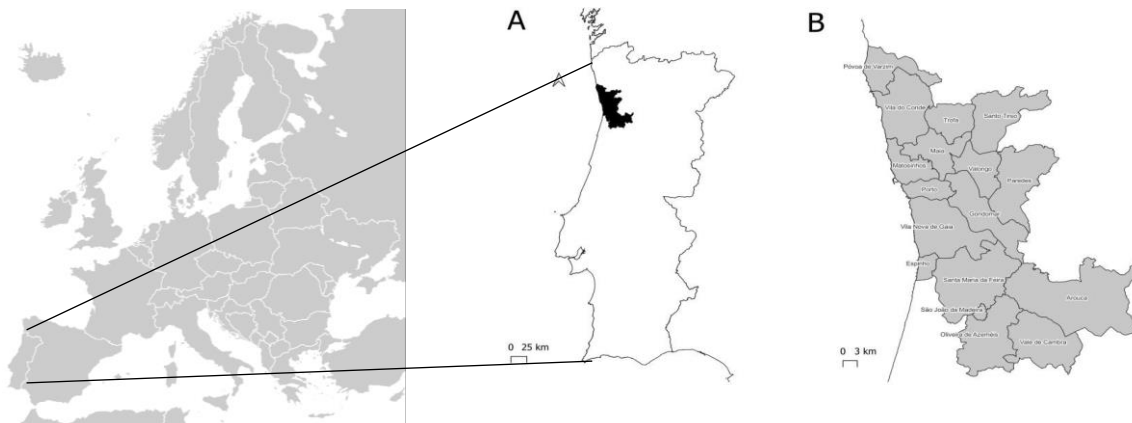
- Parenting styles vary across cultures and social factors, impacting children in the long term.
- Many parents employ violent methods to discipline children, despite the associated risks of negative outcomes and increased child maltreatment.
- Existing research often focused on mothers' reports, potentially underestimating children's exposure to paternal disciplinary behaviors. Lack of studies using children's reports.
- Few studies have examined whether mothers' and fathers' disciplinary tactics may overlap or differ.
- Examination of both parents' disciplinary behaviors will contribute to explain potential variation in associated violence risk.

**To assess if parental disciplinary practices used towards children in childhood and adolescence are individual (mother/father) or dyadic (couple) behaviors.**

# Methods

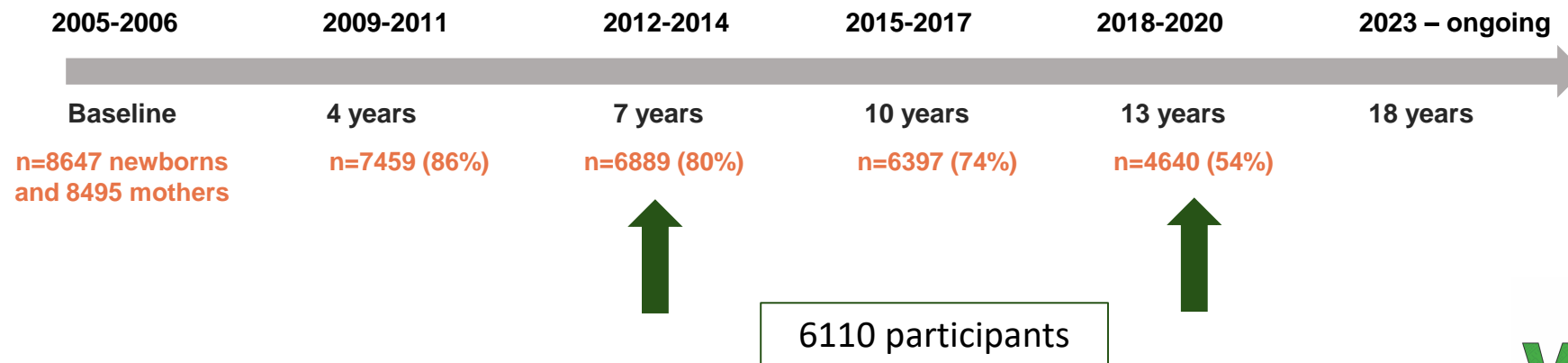
## Generation XXI

A population-based birth cohort assembled in Porto, Portugal.



### Eligibility criteria

- Mothers resident in the Porto Metropolitan Area
- Live-born child, with a gestational age  $\geq 24$  weeks
- Delivery in one of the five public maternity units
- Delivery between April 2005 and August 2006



# Methods

- Maternal and paternal disciplinary practices in the past 12 months were reported by children at 7 and 13 years.
- Parent-Child Conflict Tactics Scale (Straus et al., 1998).
- A score for each dimension was developed.

---

## Types of parental disciplinary practices

---

### Nonviolent Discipline (NVD)

- Explained why something was wrong
- Gave the child something else to do instead of what he/she was doing wrong
- Took away privileges or grounded the child
- Put the child in “time out” (or sent the child to his/her room)

### Psychological Aggression (PA)

- Shouted, yelled, or screamed at the child
- Threatened to spank or hit the child but did not actually do it
- Swore or cursed at the child
- Called the child stupid or lazy or some other name like that
- Said you would send the child away or kick child out of the house

### Corporal Punishment (CP)

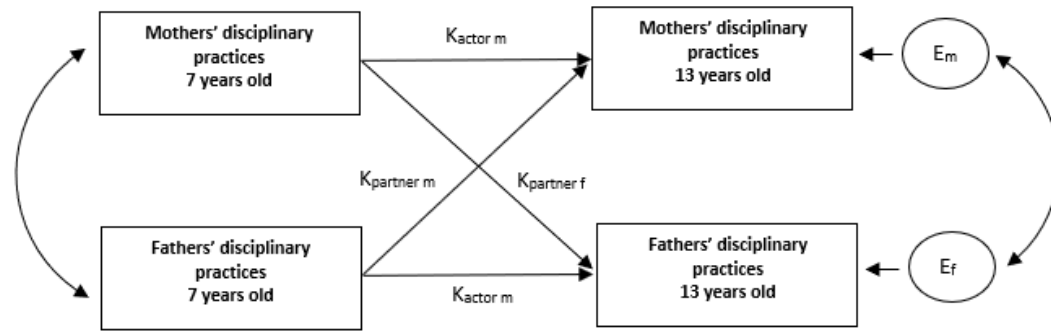
- Spanked the child on the bottom with bare hand
- Slapped the child on the hand, arm, or leg
- Hit the child on the bottom with some hard object
- Shook the child
- Pinched the child
- Slapped the child on the face or head or ears

### Severe and Very Severe Physical Assault (SVSPA)

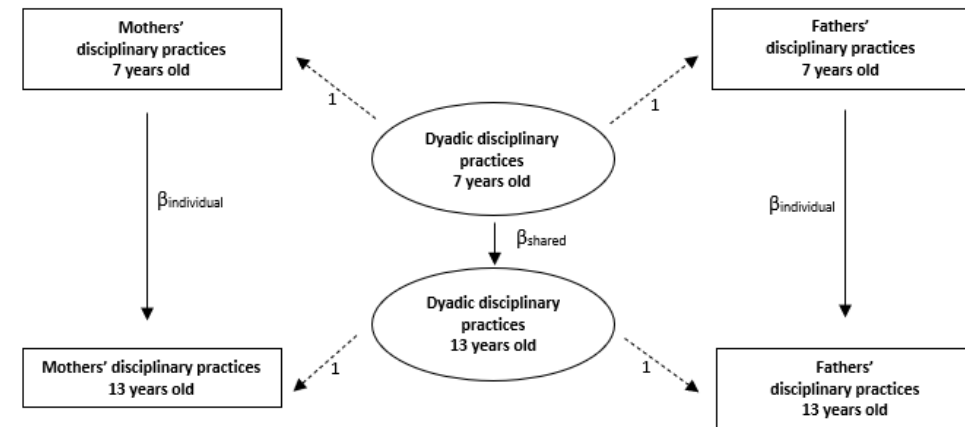
- Hit the child on some other part of the body besides the bottom with some hard object
  - Hit the child with a fist or kicked him/her hard
  - Threw or knocked the child down
  - Beat the child up, that is hit the child over and over as hard as you could
  - Grabbed the child around the neck and choked the child
  - Burned or scalded the child on purpose
  - Threatened the child with a knife or gun
-

# Methods

- Data interdependence (between dyads) was evaluated through interclass correlation coefficients.
- Actor<sub>a</sub>-partner<sub>p</sub> Interdependence Models (APIM) and Common-Fate Model (CFM) were used to estimate the effect of individual and shared decisions on disciplinary practices of mothers and fathers at 7 and 13 years old.



APIM



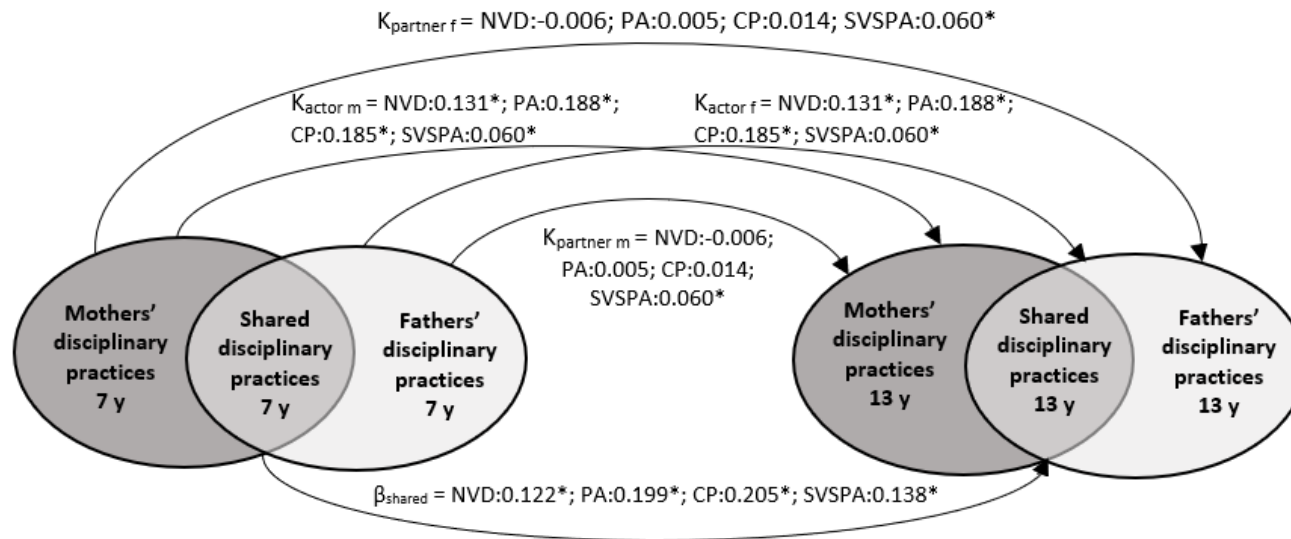
CFM

# Results

Parental disciplinary practices summary scores (at least once)	7 years		13 years	
	Mothers n (%)	Fathers n (%)	Mothers n (%)	Fathers n (%)
<b>Nonviolent Discipline (NVD), n of items</b>				
0	631 (11.3)	647 (12.0)	308 (6.9)	622 (14.0)
1	1549 (27.8)	1544 (28.6)	1109 (24.9)	1285 (28.9)
2	1791 (32.2)	1738 (32.2)	1375 (30.9)	1293 (29.1)
3	1243 (22.3)	1151 (21.3)	1139 (25.6)	897 (20.2)
4	349 (6.3)	325 (6.0)	526 (11.8)	349 (7.8)
<b>Psychological Aggression (PA), n of items</b>				
0	1320 (23.5)	1240 (22.7)	1191 (26.6)	1567 (35.1)
1	1915 (34.0)	1713 (31.4)	1329 (29.7)	1403 (31.4)
2	1668 (29.6)	1700 (31.2)	912 (20.4)	761 (17.0)
3	566 (10.1)	614 (11.3)	640 (14.3)	448 (10.0)
4	143 (2.5)	180 (3.3)	332 (7.4)	250 (5.6)
5	14 (0.2)	10 (0.2)	69 (1.5)	36 (0.8)
<b>Corporal Punishment (CP), n of items</b>				
0	1397 (24.9)	1403 (25.7)	2327 (52.4)	2753 (62.4)
1	1540 (27.4)	1522 (27.9)	797 (17.9)	683 (15.5)
2	1370 (24.4)	1279 (23.4)	570 (12.8)	466 (10.6)
3	912 (16.2)	906 (16.6)	414 (9.3)	286 (6.5)
4	316 (5.6)	286 (5.2)	219 (4.9)	141 (3.2)
5	66 (1.2)	53 (1.0)	78 (1.8)	56 (1.3)
6	12 (0.2)	11 (0.2)	38 (0.9)	26 (0.6)
<b>Severe and Very Severe Physical Assault (SVSPA), n of items</b>				
0	4316 (76.1)	4077 (74.1)	4178 (93.2)	4168 (94.0)
1	1117 (19.7)	1100 (20.0)	185 (4.1)	159 (3.6)
2	182 (3.2)	246 (4.5)	64 (1.4)	61 (1.4)
3	35 (0.6)	52 (0.9)	19 (0.4)	16 (0.4)
4	18 (0.3)	14 (0.3)	14 (0.3)	13 (0.3)
5	3 (0.1)	10 (0.2)	9 (0.2)	6 (0.1)
6	2 (0)	1 (0)	2 (0)	2 (0)
7	0 (0)	2 (0)	12 (0.3)	11 (0.2)

# Results

	NVD $\beta$ (95%CI)	PA $\beta$ (95%CI)	CP $\beta$ (95%CI)	SVSPA $\beta$ (95%CI)
<b>Actor-partner Interdependence Models</b>				
Actor	0.131 <sup>a</sup> (0.107;0.156)	0.188 <sup>a</sup> (0.160;0.216)	0.185 <sup>a</sup> (0.159;0.211)	0.060 <sup>b</sup> (0.032;0.089)
Partner	-0.006 <sup>a</sup> (-0.031;0.018)	0.005 <sup>a</sup> (-0.022;0.032)	0.014 <sup>a</sup> (-0.012;0.039)	0.060 <sup>b</sup> (0.032;0.089)
<b>Common-fate Model</b>				
Individual	0.047 (0.034;0.060)	0.074 (0.059;0.088)	0.093 (0.076;0.110)	0.006 (0.000;0.012)
Shared	0.122 (0.083;0.161)	0.199 (0.149;0.248)	0.205 (0.163;0.247)	0.138 (0.066;0.210)



Note: NVD, non-violent discipline; PA, psychological aggression; CP, corporal punishment; SVSPA, severe and very severe physical assault; <sup>a</sup>Actor-oriented model; <sup>b</sup>Couple-oriented model. \* $p < .001$ .

# Preliminary results

## Interaction analysis

	Involvement in fights at 13y <sup>1</sup>	Depressive symptoms at 13y <sup>2</sup>	Health risk behaviors at 13y <sup>3</sup>
<b>Severe/very severe physical assault</b>			
<b>Multiplicative Model 1 (Main effects, OR (95%CI))</b>			
Mother 7y	1.11 (0.94 - 1.31)	1.14 (0.93 - 1.39)	0.94 (0.81 - 1.07)
Mother 13y	<b>1.20 (1.00 - 1.43)</b>	<b>1.36 (1.11 - 1.65)</b>	1.12 (0.96 - 1.31)
Father 7y	1.07 (0.92 - 1.26)	0.94 (0.77 - 1.13)	1.08 (0.95 - 1.23)
Father 13y	1.11 (0.93 - 1.34)	1.06 (0.86 - 1.30)	1.00 (0.85 - 1.17)
<b>Additive Model 2<sup>1</sup> (Two-way interactions, <math>\beta</math> (95%CI))</b>			
Mother 7y	--	0.01 (-0.01 - 0.03)	--
Mother 13y	<b>0.09 (0.05 - 0.12)*</b>	<b>0.12 (0.09 - 0.16)*</b>	<b>0.07 (0.03 - 0.11)*</b>
Father 13y	<b>0.08 (0.04 - 0.13)*</b>	<b>0.06 (0.02 - 0.11)*</b>	<b>0.06 (0.02 - 0.10)*</b>
Mother 13y x Father 13y	<b>-0.02 (-0.03 - -0.01)*</b>	<b>-0.03 (-0.03 - -0.02)*</b>	<b>-0.02 (-0.03 - -0.01)*</b>

\*p<0.05; <sup>1</sup>involvement in fights inside and/or outside the school; <sup>2</sup>Beck Depression Inventory score>13; <sup>3</sup>alcohol and/or tobacco use (including try or use).



# Conclusions

- Independently of the actor, the use of non-violent discipline, psychological aggression and corporal punishment in childhood predicted the use of those tactics in adolescence with no partner effect.
- The consistent use of the most severe disciplinary tactics in childhood and adolescence was a parental shared behavior.
- Population-based research needs to include disciplinary methods employed by both parents as a factor that could greatly affect the risk exposure to violence and its impact on child's development and health.

Thank you!

mariana.amorim@ispup.up.pt

