

# Intergenerational dental fear and children's pattern of dental service use: data from the 2015 Pelotas birth cohort study

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This cohort study demonstrated that the presence of maternal dental fear is capable of increasing the prevalence of childhood dental fear. Additionally, the presence of dental fear in children is associated with a higher prevalence of never having visited a dentist or having visited for curative reasons.

## BACKGROUND

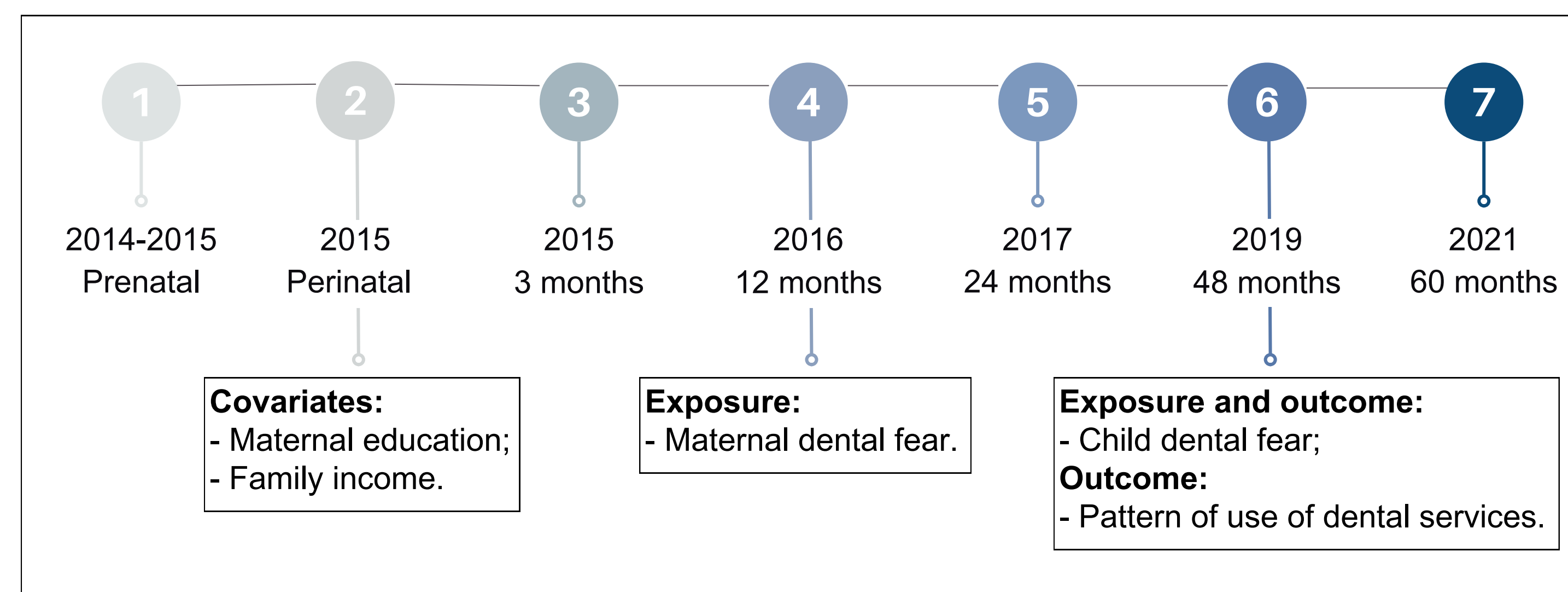
Dental fear can have a detrimental effect on children's dental and general health. For that reason, this study aimed to verify the relationship between intergenerational dental fear and the use of early childhood dental services among participants in the 2015 Pelotas Birth Cohort study.

## METHODS

Data from the 2015 Pelotas Birth Cohort were used:



Follow-up studies:



Statistical analyses were performed on the software Stata, version 15.0. Poisson regression models, and multinomial logistic regression models were used for the analyses of the associations.

## RESULTS

The analytical sample included all individuals who had information available on the variables of interest, totaling 3,809 mother-baby.

Table 1. Characteristics and comparison between the full and the analytical samples.

	Full sample		Analytical sample	
	n	%	n	%
<b>Maternal education (n=4,274)</b>				
12 years or more (completed high school)	1,330	31.1	1,165	30.6
9 to 11 years	1,458	34.1	1,342	35.2
5 to 8 years	1,095	25.6	975	25.6
0 to 4 years	391	9.2	327	8.6
<b>Family income (minimum wages) (n=4,273)</b>				
>10	270	6.3	230	6.0
6.1-10	324	7.6	277	7.3
3.1-6	1,127	26.4	1,017	26.7
1-3	2,014	47.1	1,820	47.8
≤1	538	12.6	465	12.2
<b>Maternal dental fear (n=4,011)</b>				
No	3,194	79.6	3,036	79.7
Yes, a little	283	7.1	268	7.0
Yes	139	3.5	133	3.5
Yes, a lot	395	9.8	372	9.8
<b>Child dental fear (n=3,949)</b>				
No	2,521	63.0	2,446	64.2
Yes, a little	889	22.2	847	22.2
Yes, a lot	539	13.5	516	13.6
<b>Dental visit pattern (n=3,986)</b>				
Have been, last visit was preventive	1,087	27.3	1,049	27.5
Have been, last visit curative	330	8.3	324	8.5
Has never been	2,569	64.4	2,436	64.0

Table 2. Pattern of child dental visit by sociodemographic and dental fear variables. 2015 Pelotas Birth Cohort Study. N=3,809.

	Visited for prevention		Visited for curative		Never visited	
	n	%	n	%	n	%
<b>Maternal education</b>						
12 years or more (completed high school)	480	41.2	109	9.4	576	49.4
9 to 11 years	340	25.3	117	8.7	885	67.0
5 to 8 years	168	17.2	77	7.9	730	74.9
0 to 4 years	61	18.7	21	6.4	245	74.9
<b>Family income (minimum wages)</b>						
>10	135	58.7	20	8.7	75	32.6
6.1-10	117	42.2	28	10.1	132	47.7
3.1-6	306	30.1	92	9.0	619	60.9
1-3	391	21.5	156	8.6	1,273	69.9
≤1	100	21.5	28	6.0	337	72.5
<b>Maternal dental fear</b>						
No	878	28.9	255	8.4	1,903	62.7
Yes, a little	65	24.3	17	6.3	186	69.4
Yes	33	24.8	10	7.5	90	67.7
Yes, a lot	73	19.6	42	11.3	257	69.1
<b>Child dental fear</b>						
No	804	32.9	202	8.3	1,440	58.9
Yes, a little	171	20.2	68	8.0	608	71.8
Yes, a lot	74	14.3	54	10.5	388	75.2

Table 3. Associations between maternal and child dental fear, and between child dental fear and pattern of dental visit. Regression analyses. 2015 Pelotas Birth Cohort Study. N=3,809.

	Presence of child dental fear <sup>1</sup>							
	Crude		Adjusted <sup>2</sup>					
Maternal dental fear	PR	95% CI	PR	95% CI				
No (reference)	1.0		1.0					
Yes+	1.25	1.14; 1.38	1.20	1.09; 1.32				
<b>Child pattern of dental visit<sup>3</sup></b>								
	Crude				Adjusted <sup>4</sup>			
	Visited for curative reasons		Never visited		Visited for curative reasons		Never visited	
Child dental fear	PR	95% CI	PR	95% CI	PR	95% CI	PR	95% CI
No (reference)	1.0		1.0		1.0		1.0	
Yes+	1.98	1.52; 2.59	2.27	1.93; 2.67	1.90	1.45; 2.48	2.11	1.78; 2.50

<sup>1</sup>Poisson regression analysis. Reference absence of child dental fear. <sup>2</sup>Adjusted for maternal education in number of years. <sup>3</sup>Multinomial logistic regression. Reference visited for preventive reasons. <sup>4</sup>Adjusted for maternal dental fear, maternal education in number of years, and family income in minimum wages.

## CONCLUSIONS

- The presence of dental fear in mothers significantly increases the prevalence of dental fear in children;
- Dental fear in children is associated with a higher prevalence of either dental visits for curative reasons or a complete absence of dental visits;
- Our results highlight the importance of implementing oral health measures that involve the entire family;
- Efforts should be directed towards promoting and raising awareness about the importance of preventive dental visits.

## ADDITIONAL KEY INFORMATION

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 The authors report no conflict of interest.