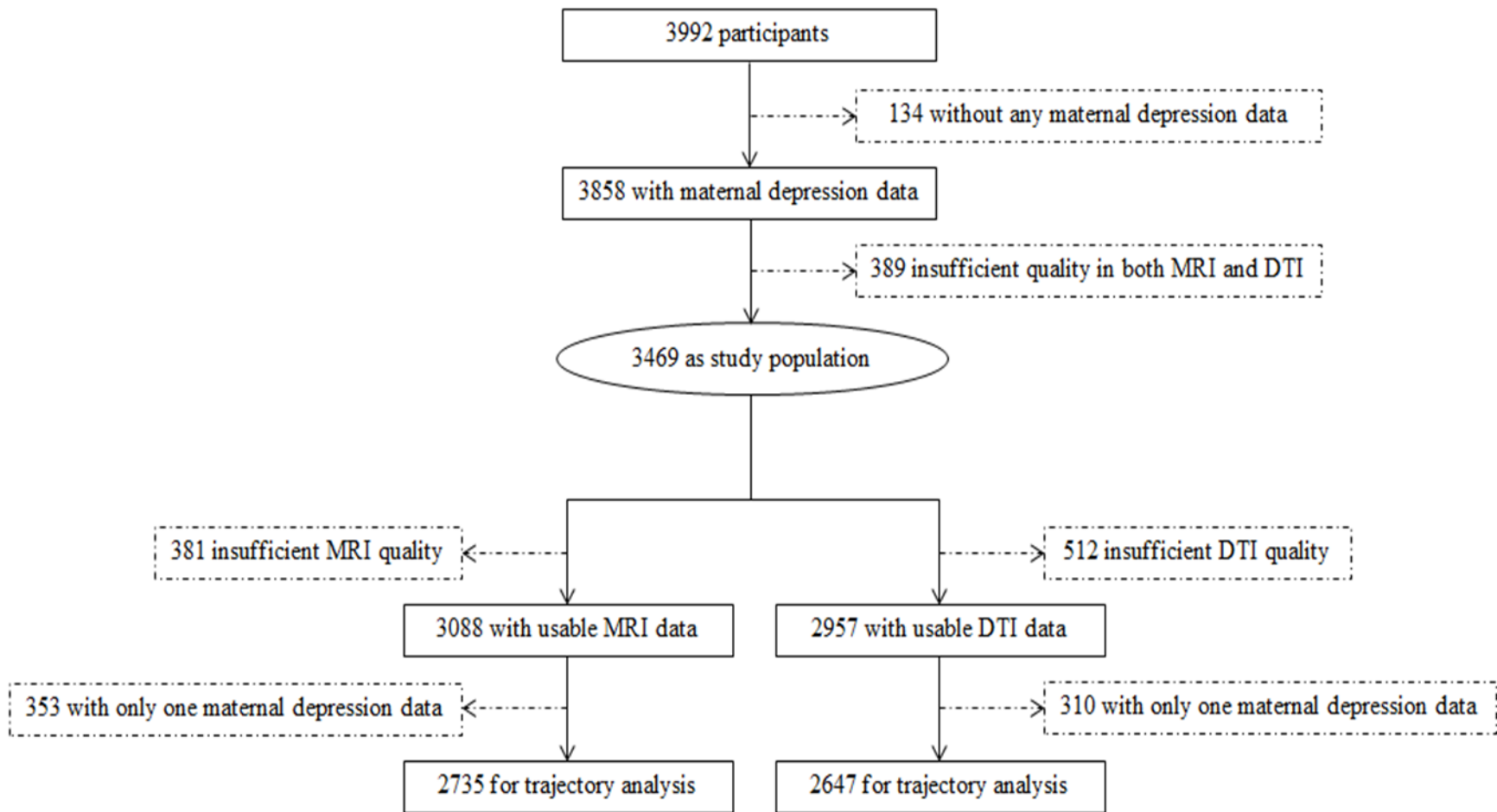


**FIGURE S1. Flow chart of the study population**



**TABLE S1. Maternal depressive symptoms and volume of specific limbic structures in children**

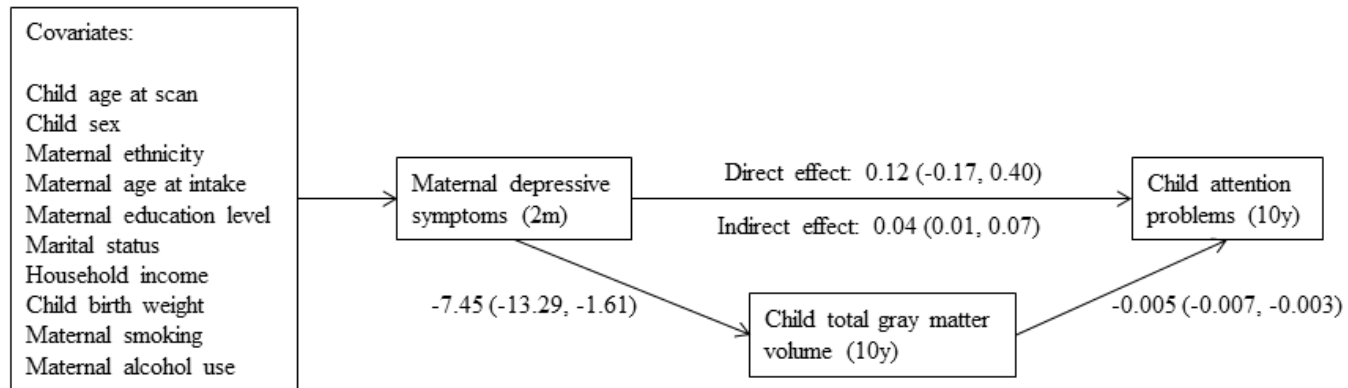
Maternal Depressive Symptoms	Thalamus (cm <sup>3</sup> )			Amygdala (cm <sup>3</sup> )			Hippocampus (cm <sup>3</sup> )		
	B	95% CI	p	B	95% CI	p	B	95% CI	p
20 weeks of gestation (N=2348)									
Model 1 <sup>a</sup>	0.02	-0.06, 0.11	0.58	0.03	-0.003, 0.06	0.08	0.05	-0.001, 0.11	0.05
Model 2 <sup>b</sup>	0.04	-0.06, 0.13	0.44	0.02	-0.01, 0.05	0.20	0.06	-0.01, 0.12	0.07
Child age 2 months (N=2083)									
Model 1	0.02	-0.07, 0.10	0.74	-0.01	-0.04, 0.02	0.51	-0.03	-0.08, 0.03	0.38
Model 2	0.02	-0.07, 0.11	0.71	-0.02	-0.05, 0.01	0.21	-0.03	-0.09, 0.03	0.32
Child age 3 years (N=2207)									
Model 1	-0.02	-0.14, 0.10	0.74	0.02	-0.03, 0.06	0.46	-0.04	-0.12, 0.03	0.27
Model 2	-0.01	-0.13, 0.11	0.88	0.01	-0.03, 0.05	0.61	-0.05	-0.13, 0.03	0.24
Child age 10 years (N=2676)									
Model 1	0.04	-0.05, 0.12	0.41	0.01	-0.02, 0.04	0.66	0.01	-0.04, 0.07	0.62
Model 2	0.03	-0.06, 0.12	0.48	0.01	-0.02, 0.04	0.71	0.01	-0.05, 0.07	0.76
Trajectory Group (N=2735)	Thalamus (cm <sup>3</sup> )			Amygdala (cm <sup>3</sup> )			Hippocampus (cm <sup>3</sup> )		
	B	95% CI	p	B	95% CI	p	B	95% CI	p
Model 1 <sup>c</sup>									
No	Ref	-	-	Ref	-	-	Ref	-	-
Low	0.02	-0.06, 0.10	0.60	0.01	-0.01, 0.04	0.29	0.02	-0.04, 0.06	0.57
Increasing	-0.16	-0.46, 0.14	0.29	-0.04	-0.14, 0.06	0.41	-0.11	-0.30, 0.08	0.27
Perinatal high	0.04	-0.20, 0.28	0.73	-0.01	-0.09, 0.08	0.86	0.03	-0.13, 0.19	0.73
Model 2 <sup>c</sup>									
No	Ref	-	-	Ref	-	-	Ref	-	-
Low	0.02	-0.06, 0.10	0.66	0.01	-0.02, 0.03	0.62	0.01	-0.04, 0.06	0.71
Increasing	-0.16	-0.46, 0.14	0.30	-0.05	-0.15, 0.05	0.35	-0.12	-0.32, 0.07	0.22
Perinatal high	0.03	-0.22, 0.28	0.81	-0.01	-0.10, 0.07	0.80	0.02	-0.14, 0.19	0.77

a. Model 1 was adjusted for intracranial volume.

b. Model 2 was additionally adjusted for child age at scan, child sex, maternal ethnicity, maternal age at intake, maternal educational level, marital status, household income, child birth weight, maternal smoking, and maternal alcohol use.

c. Models were additionally adjusted for posterior probability of trajectory membership.

**FIGURE S2. Mediation models between maternal depressive symptoms, child total gray matter volume, and child attention problems (N=1760)**



**TABLE S2. Comparison of LCGA-based trajectories model fit indices<sup>a</sup>**

Number of Class	Growth Factors <sup>b</sup>	Fit Indices				
		Entropy	AIC <sup>c</sup>	BIC <sup>d</sup>	LMR <sup>e</sup>	BLRT <sup>f</sup>
2	i, s	0.744	14525.824	14580.092	P<0.001	P<0.001
	i, s, q	0.890	16239.757	16306.084	P<0.001	P<0.001
	i, s, q, c	0.924	16523.886	16602.273	P<0.001	P<0.001
3	i, s	0.665	14287.055	14359.412	P=0.006	P<0.001
	i, s, q	0.635	14220.958	14311.404	P=0.010	P<0.001
	i, s, q, c	0.686	14191.399	14299.935	P<0.001	P<0.001
4	i, s	0.734	14168.920	14259.366	P=0.004	P<0.001
	i, s, q	0.703	14070.867	14185.433	P=0.080	P<0.001
	i, s, q, c	0.738	14040.140	14178.825	P=0.004	P<0.001
5	i, s	0.677	14131.408	14239.944	P=0.124	P<0.001
	i, s, q	0.749	13964.574	14103.259	P=0.252	P<0.001
	i, s, q, c	0.761	13937.861	14106.694	P=0.567	P<0.001

<sup>a</sup> LCGA=Latent Class Growth Analysis

<sup>b</sup> i=intercept, s=slope, q=quadratic, c=cubic, all with significance in the models

<sup>c</sup> AIC=Akaike's Information Criterion

<sup>d</sup> BIC=Bayesian Information Criterion

<sup>e</sup> LMR=Lo-Mendell-Rubin test

<sup>f</sup> BLRT=Bootstrap Likelihood Ratio Test

**TABLE S3. Sensitivity analyses of maternal depressive symptoms and child brain development**

Maternal Depressive Symptoms	Global Volumetric Measures (cm <sup>3</sup> )						Global White Matter Microstructure Measures					
	Total Gray Matter			Total White Matter			Fractional Anisotropy (FA)			Mean Diffusivity (MD)		
	B	95% CI	p	B	95% CI	p	B	95% CI	p	B	95% CI	p
20 weeks of gestation (N=2348)							(n=2243)					
Model 1 <sup>a</sup>	-19.14	-25.32, -12.97	<0.001	-10.17	-15.02, -5.32	<0.001	-0.28	-0.46, -0.10	0.002	0.02	-0.01, 0.04	0.15
Model 2 <sup>b</sup>	-2.58	-8.02, 2.85	0.35	-2.32	-6.79, 2.16	0.31	-0.08	-0.28, 0.11	0.41	0.02	-0.01, 0.04	0.19
Child age 2 months (N=2028)							(n=1985)					
Model 1	-11.34	-17.99, -4.70	0.001	-3.60	-8.84, 1.64	0.18	-0.29	-0.48, -0.10	0.002	0.02	-0.004, 0.04	0.12
Model 2	-7.53	-13.11, -1.94	0.008	-2.73	-7.37, 1.92	0.25	-0.22	-0.41, -0.02	0.03	0.01	-0.01, 0.03	0.34
Child age 3 years (N=2148)							(n=2127)					
Model 1	-9.22	-18.29, -0.16	0.05	-5.55	-12.72, 1.63	0.13	-0.23	-0.49, 0.03	0.08	0.03	-0.01, 0.06	0.14
Model 2	-0.44	-7.91, 7.04	0.91	-1.64	-7.83, 4.54	0.60	-0.11	-0.37, 0.16	0.44	0.02	-0.01, 0.06	0.18
Child age 10 years (N=2603)							(n=2511)					
Model 1	-11.00	-17.31, -4.70	0.001	-6.02	-10.97, -1.07	0.02	-0.21	-0.39, -0.03	0.02	0.01	-0.01, 0.03	0.45
Model 2	-2.32	-7.55, 2.91	0.38	-2.20	-6.54, 2.13	0.32	-0.10	-0.29, 0.08	0.27	0.01	-0.02, 0.03	0.59
Trajectory Group	Global Volumetric Measures (cm <sup>3</sup> )						Global White Matter Microstructure Measures					
	Total Gray Matter			Total White Matter			Fractional Anisotropy (FA)			Mean Diffusivity (MD)		
	B	95% CI	p	B	95% CI	p	B	95% CI	p	B	95% CI	p
N	2671			2671			2586			2586		
Model 1 <sup>c</sup>												
No	Ref	-	-	Ref	-	-	Ref	-	-	Ref	-	-
Low	-6.97	-12.55, -1.39	0.01	-2.16	-6.58, 2.26	0.34	-0.22	-0.38, -0.05	0.01	0.02	0.001, 0.04	0.04
Increasing Perinatal high	-37.14	-59.58, -14.69	0.001	-24.92	-42.67, -7.17	0.006	-0.09	-0.70, 0.52	0.77	-0.04	-0.11, 0.04	0.34
Model 2 <sup>c</sup>												
No	Ref	-	-	Ref	-	-	Ref	-	-	Ref	-	-

Low	-2.20	-6.84, 2.45	0.35	-1.12	-4.96, 2.72	0.57	-0.13	-0.30, 0.04	0.13	0.02	-0.002, 0.04	0.07
Increasing	-14.71	-32.94, 3.52	0.11	-12.46	-27.54, 2.63	0.11	0.12	-0.49, 0.72	0.71	-0.03	-0.11, 0.04	0.38
Perinatal high	-20.74	-36.18, -5.29	0.008	-14.56	-27.34, -1.77	0.03	-0.58	-1.10, -0.05	0.03	0.05	-0.01, 0.12	0.12

a. Model 1 was adjusted for no covariates.

b. Model 2 was adjusted for child age at scan, child sex, maternal ethnicity, maternal age at intake, maternal educational level, marital status, household income, child birth weight, maternal smoking, and maternal alcohol use.

c. Models were additionally adjusted for posterior probability of trajectory membership.