Supplementary information

Association between assisted reproductive technology and the risk of autism spectrum disorders in the offspring: a meta-analysis

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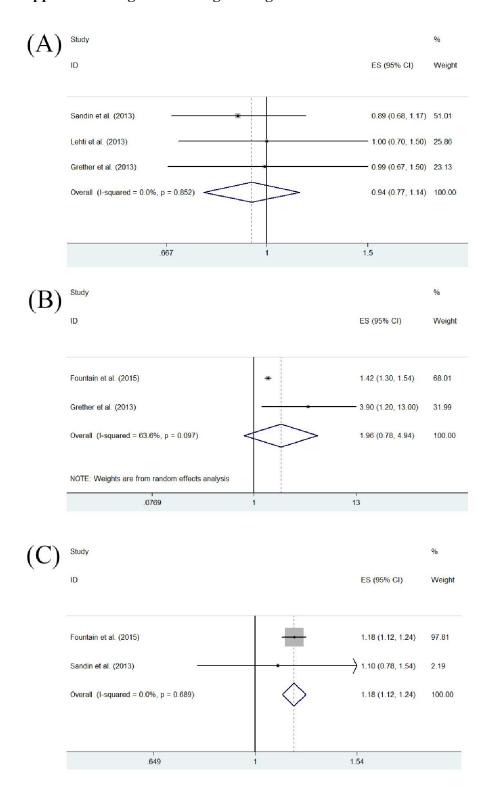
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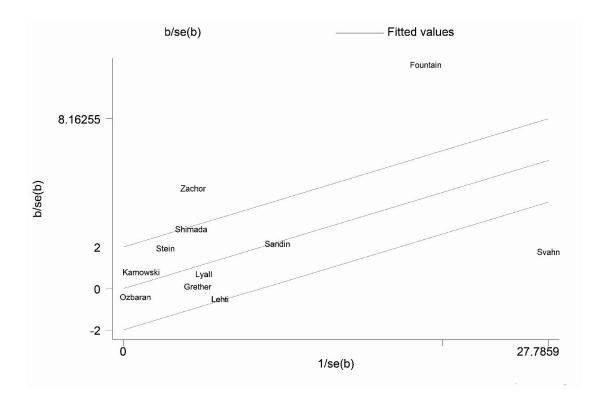
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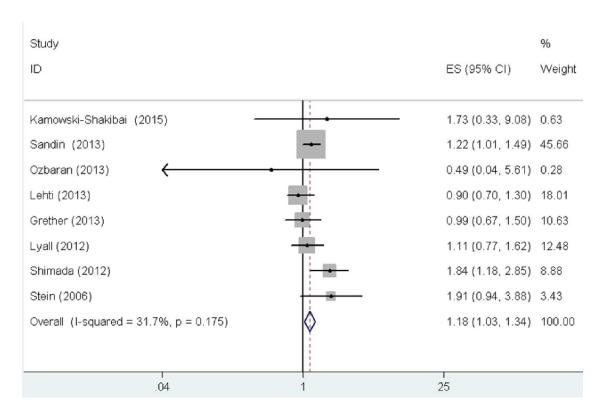
Supplemental Figures and Figure Legends:



Supplementary Figure. S1. Forest plot of subgroups analysis by singletons birth **(A)**, multiple birth **(B)** and preterm (<37 weeks) **(C)**. CI, confidence interval



Supplementary Figure S2. Galbraith plot of ART using and the risk of ASDs among the children. ASDs, autism spectrum disorders.



Supplementary Figure S3. Forest plot of ASDs risk associated with ART using after removing three studies. ASDs, autism spectrum disorders; CI, confidence interval.

Supplementary Table S1. The details about subgroups analysis for each study

Author (year)	Mothers' age <35 year old	Mothers' age >35 year old	Singletons birth	multiple birth	Preterm (<37 weeks)	
Svahn et al. (2015) ¹	NA	NA	NA NA		NA	
Kamowski- Shakibai et al. (2015) ²	NA	NA	NA NA		NA	
Fountain et al. $(2015)^3$	1.21 (1.01, 1.45)	1.0 (0.88, 1.14)	NA	1.42 (1.30, 1.54)	1.18 (1.12, 1.24)	
Sandin et al. (2013) ⁴	NA	NA	0.89 (0.68, 1.17)	NA	1.10 (0.78, 1.54)	
Özbaran et al. (2013) ⁵	NA	NA	NA	NA	NA	
Lehti et al. $(2013)^6$	NA	NA	1.0 (0.7, 1.5)	NA	NA	
Grether et al. $(2013)^7$	NA	NA	0.99 (0.67, 1.5)	3.9 (1.2, 13)	NA	
Lyall et al. (2012) ⁸	NA	NA	NA	NA	NA	
Shimada et al. (2012) ⁹	NA	NA	NA	NA	NA	
Zachor et al. (2011) ¹⁰	NA	NA	NA	NA	NA	
Stein et al. (2006) ¹¹	NA	NA	NA	NA	NA	

NA: no avalible;

Supplementary Table S2. Summary of subgroups meta-analysis results.

		Test of association			Heterogeneity			
Subgroup Groups	Studies	RR[95%CI]	p value	Model	Z	X^2	p value	I ² (%)
Singletons birth	3	0.94[0.77-1.14]	0.153	FE	0.62	0.32	0.852	0
multiple birth	2	1.96[0.78-4.94]	0.532	RE	1.43	2.75	0.097	0.636
Preterm(<37 weeks)	2	1.18[1.12-1.24]	0	FE	6.39	0.16	0.689	0

RE: random effects; FE: fixed effects;

Reference:

- Svahn, M. F. *et al.* Mental disorders in childhood and young adulthood among children born to women with fertility problems. *Human Reproduction* **30**, 2129-2137, (2015).
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- 9 Shimada T *et al.* Parental age and assisted reproductive technology in autism spectrum disorders, attention deficit hyperactivity disorder, and Tourette syndrome in a Japanese population. *Res Autism Spec Dis*, 500-507, (2012).
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