

ORAL PRESENTATION 4-2

소아재활

발표일시 및 장소: 10 월 19 일(토) 14:00-14:10 Room D(5F)

OP4-2-1

Effects of parental age and health on intellectual disability and/or autism spectrum disorder

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Background

To verify the effects of parental age and health at conception on the risk of intellectual disability (ID) and/or autism spectrum disorder (ASD) in offspring.

Methods

We performed a population-based cohort study of parents–offspring trios in South Korea during 2003–2015. We collected data for the age and socioeconomic status of the parents at childbirth. We identified parental diseases at conception. We estimated the odds ratio (OR) of ID and/or ASD development in offspring.

Results

We set up the cohort of 3,869,860 parents–offspring trios. The paternal age \geq 30 years at childbirth linearly increased the OR of ID and/or ASD development in offspring up to 3.42 and 1.97, respectively. Presence of paternal diseases at conception did not cause any significant increase of OR. The maternal age of 30–39 years at childbirth significantly reduced the OR of ID development in offspring down to 0.88, while maternal age $<$ 25 years at childbirth showed a significant OR increase in ID development in offspring up to 2.19. The maternal age at childbirth showed an OR of 1.12 of ASD development in offspring only at the age of 35–39 years. Maternal diseases at conception such as schizophrenia, depression, and type II diabetes mellitus, have significant effects on the risk of development of ID and/or ASD in offspring, independent of maternal age.

Conclusions

These findings call for public awareness about biological implication of delayed fatherhood and the importance of maternal health at a fertile age, on the risk of ID and/or ASD in offspring.

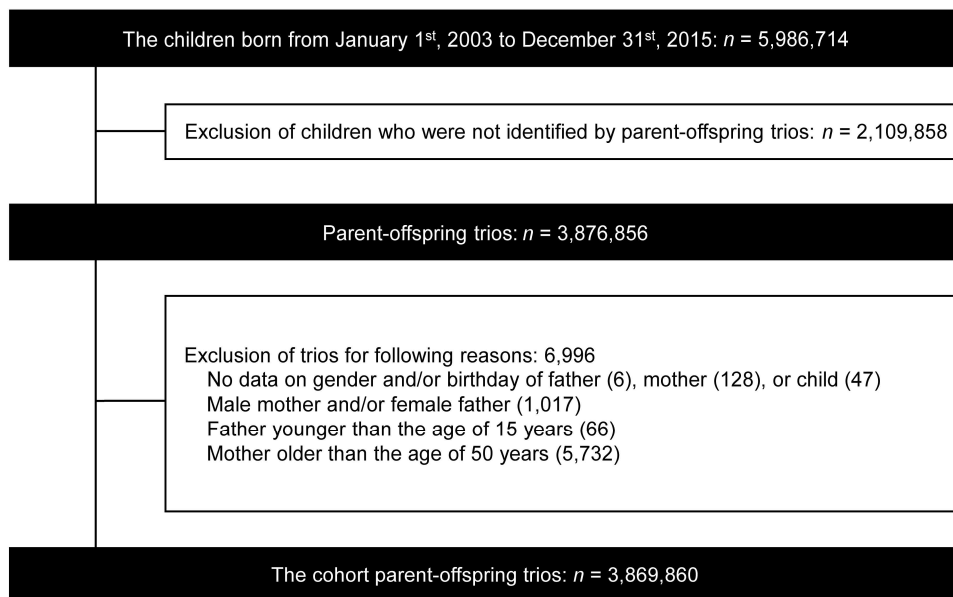


Figure 1 The flow diagram of development of the parents–offspring trios cohort during 2003–2015.

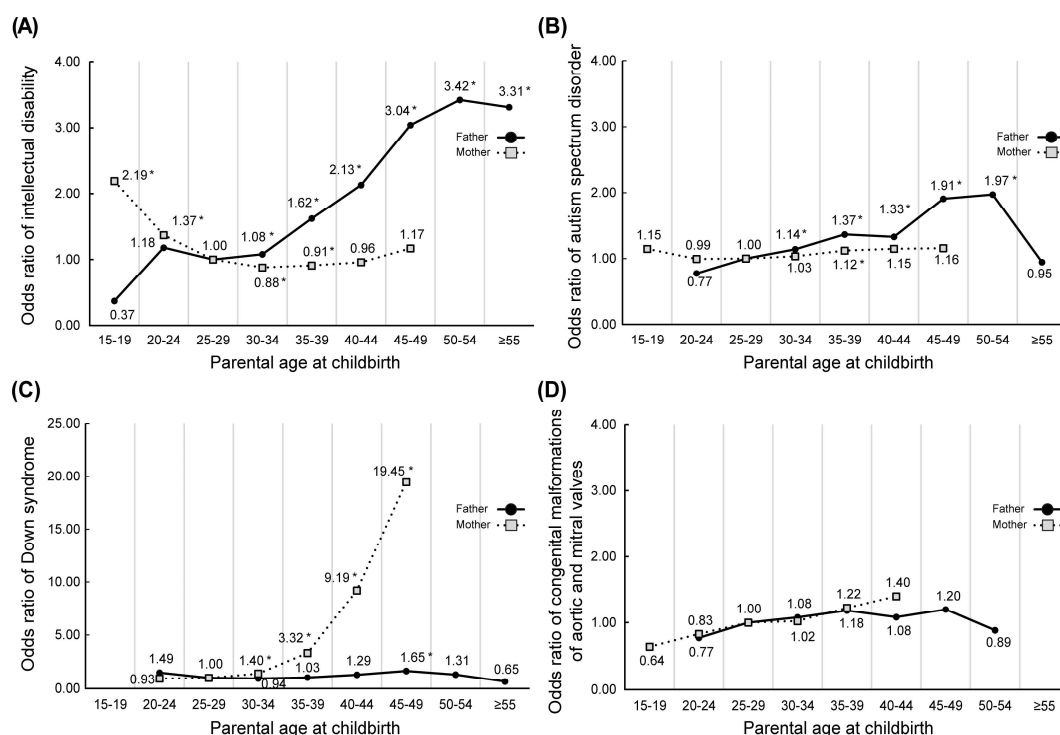


Figure 2 Odds ratio of intellectual disability (A) and autism spectrum disorder (B) in offspring by parental age.