

Caesarean section is not an important determinant of offspring cognitive ability among young adult men

September 16 2021



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Birth by cesarean section is weakly associated with a lower general cognitive ability in young adult males. However, the magnitude of this

association is not clinically relevant. This is according to a study at Karolinska Institutet, published in the Evidence-Based Mental Health. The lower general cognitive ability also seems to be largely explained by familial factors shared between siblings instead of mode of delivery, the study found.

Delivery by cesarean section has increased globally from 7% to 19% of all births between 1990 and 2014, although this delivery method varies between countries and is unevenly distributed according to socioeconomic factors within countries. The increase in cesarean section has triggered interest in whether the intervention may carry long-term health risks. Nevertheless, few studies have examined the impact of cesarean section on cognitive ability, especially amongst young adults.

"Our findings that cesarean section is not a clinically relevant determinant of offspring cognitive ability are reassuring, especially as cognitive ability is a strong determinant of future health," says first author Viktor H. Ahlqvist, Ph.D. student at the Department of Global Public Health, Karolinska Institutet. The researchers revealed that cognitive ability can be explained by factors shared between siblings.

How did you perform the study?

"We leveraged the Swedish medical [birth](#) registry and data from cognitive assessments performed at military conscription to study a cohort of half a million young men and their brothers," Viktor H. Ahlqvist explains.

The [study](#) used pre-existing data from health registries, linking Swedish personal numbers to population-based registers. All males born in Sweden between 1973 and 1987 were identified and birth information collected.

What is the next step in the research?

"Although further longitudinal studies of cesarean section and offspring cognitive ability are warranted, especially including [female participants](#), we have a keen interest in scrutinizing the impact of delivery modes in other phenotypes.

Specifically, there is an urgent need to systematically and rigorously analyze its putative effect on a wide range of outcomes in children, mothers and society—particularly in light of the global surge in cesarean section deliveries," says Viktor H. Ahlqvist.

More information: Viktor H Ahlqvist et al, Cesarean section and its relationship to offspring general cognitive ability: a registry-based cohort study of half a million young male adults, *Evidence Based Mental Health* (2021). [DOI: 10.1136/ebmental-2021-300307](https://doi.org/10.1136/ebmental-2021-300307)

Provided by Karolinska Institutet

Citation: Cesarean section is not an important determinant of offspring cognitive ability among young adult men (2021, September 16) retrieved 1 May 2024 from <https://medicalxpress.com/news/2021-09-caesarean-section-important-offspring-cognitive.html>

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