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Is intelligence is related to early puberta in childhood?

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Dear Editor,

Studies have shown that boys with higher cognitive abilities on measures of IQ and academic performance tend to experience earlier puberty than their peers. This association may be linked to several factors, including (1-4):

Nutritional status: Children with better cognitive scores often come from environments with better nutrition, which can influence pubertal timing.

Genetic factors: Some genes may influence both cognitive ability and pubertal timing, leading to a shared genetic association.

Metabolic efficiency: Higher intelligence may correlate with more efficient energy metabolism, potentially favoring earlier physical maturation. Of course, the relationship between intelligence and pubertal timing is complex and likely bidirectional.

Early puberty can also impact cognitive development, particularly in girls, who may experience a temporary decline in certain cognitive domains before catching up later. Therefore, it is crucial to avoid simplifying the issue and falling into generalizations. Instead, we advocate for a nuanced understanding of the various factors influencing the multifaceted relationship between early puberty and cognitive outcomes, considering both positive and negative correlations and their underlying mechanisms. Further research with larger and more diverse samples is needed to clarify the causal relationships between intelligence and pubertal timing. Understanding these complexities can inform strategies for supporting development and optimizing educational interventions for children experiencing early or late puberty. We strongly encourage the scientific community to explore this intricate interplay further and move beyond the sole focus on potential disadvantages of early puberty. Recognizing the possible positive associations with intelligence can help tailor interventions and offer a more balanced perspective on this significant stage of human development (4-7).

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