The implicit power motive and the facial width-to-height ratio as possible marker of organizational hormone effects during puberty

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Background: The inhibited power motive is a motivational disposition that is associated with the display and the acquisition of behaviors that allow exerting influence on others. It comprises a high implicit need for power (n Power) and a high activity inhibition, a marker of right-hemispheric brain lateralization under stress. There is evidence that organizational hormone effects during prenatal development are linked to the emerging n Power but it remains unknown whether this is also true for hormonal organization during puberty.

Methods: We combined results from two studies that have assessed n Power and activity inhibition via Picture Story Exercise (PSE) and the facial width-to-height ratio (fWHR), a presumed marker of organizational hormone effects during puberty, via anthropometry in a cross-sectional, correlational design (total $N = 213$, after exclusions). **Results:** While controlling for BMI and age, we found an association of n Power and fWHR that was moderated by activity inhibition and gender in a multiple regression. The effect was predominantly driven by a positive effect of the inhibited power motive in females. In females, fWHR was also negatively associated with PSE-word count. **Conclusions:** Our results provide a first pointer to a second phase of organizational hormone effects on the emerging n Power in females. Limitations arising from the usage of fWHR as a proxy variable and implications for its marker function are discussed.

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